

International Hydrographic Organization

SWPHC20 Workshop

By Leonel Manteigas

IHO Assistant Director for Coordination & Capacity Building



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SWPHC20 Workshop
Wellington, New Zealand, 20-21 February 2023

South West Pacific Hydrographic Commission



Summary:

- Importance of hydrography
- Responsibilities
- The International Hydrographic Organization
- IHO membership
- Capacity Building



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Hydrography focuses on:

- measuring and describing the physical features of oceans, seas, coastal areas, lakes and rivers as well as in the prediction of their change over time.*

Hydrography involves

- The collection of hydrographic data*
- The production of nautical charts and publications*
- The collection and dissemination of Maritime Safety Information (MSI)*



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... *Safety and Efficiency of Navigation*

>98% goods by volume



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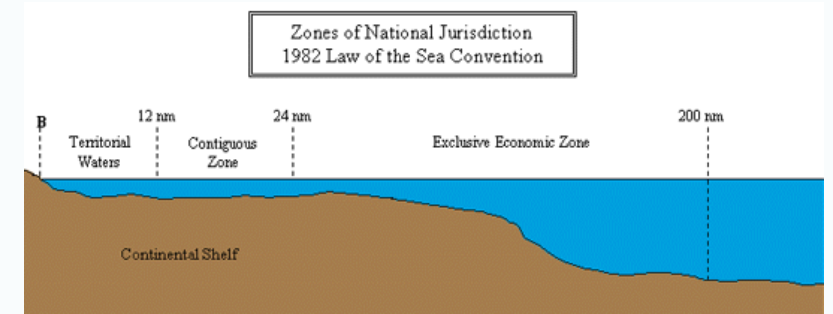
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... *Coastal zone management*

- Resource management
- Industrial pollution
- Port development
- Areas of national jurisdiction



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... Natural resources

- Fishing
- Seabed



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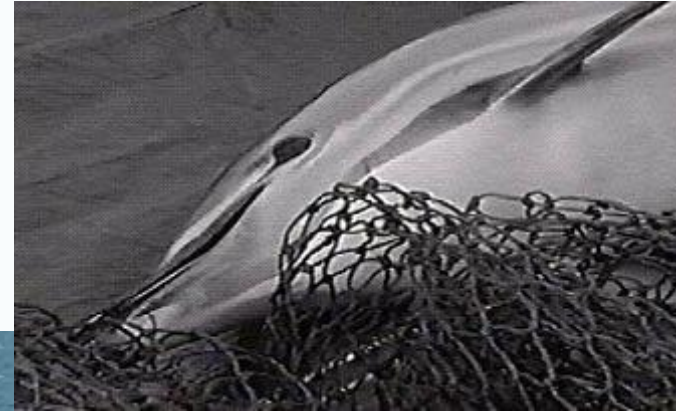
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... Protection of the marine environment

- Dumping
- Oil spill
- Industrial pollution



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... Natural disaster management

- Inundation modelling
- Sea level rise
- Tsunami
- Relief planning



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... Security and defence

- Maritime patrol and military operations
- Fishery protection
- Surveillance
- Disaster Relief
- Search and Rescue(SAR)



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... Tourism

- Growing market
- Larger ships
- New destinations



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Inadequate hydrography implies:

- Risk of marine accidents increases
 - environmental pollution
 - loss of lives
- Shipping lacks confidence in ports and routes
- International trade is limited and more expensive
- Missed economic opportunities
- Inability to properly delimit, declare and enforce national maritime boundaries
- Environmental impacts
- Potential liability and litigation



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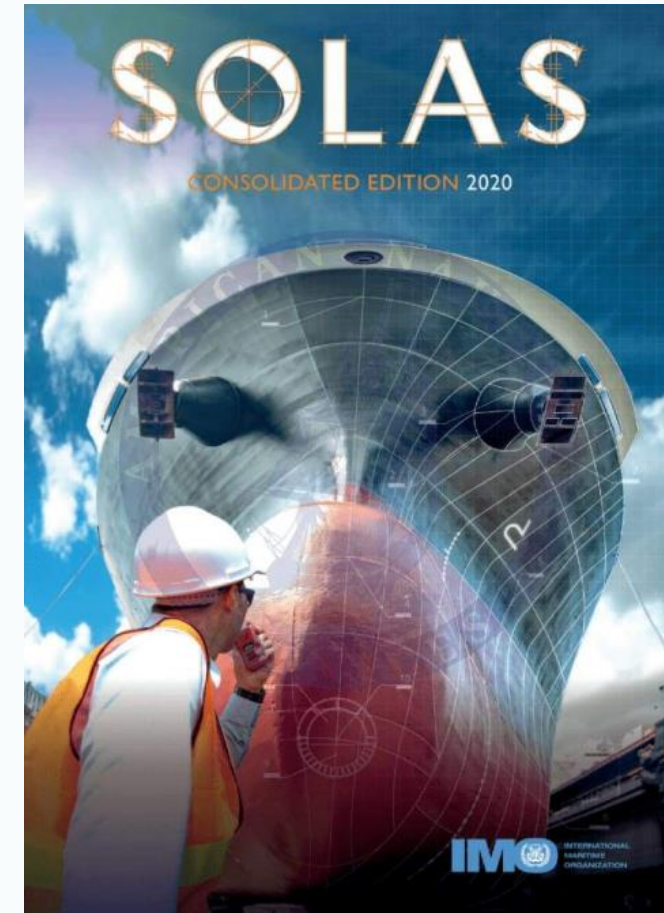


SOLAS – Obligations on Governments

SOLAS Chapter V, Regulation 9 and Regulation 4

*In resume each State **must** ensure that:*

- Hydrographic surveys are carried out
- Appropriate nautical charts and other nautical publications are available and up to date
- Maritime Safety Information (MSI) is received and promptly brought to the knowledge of those concerned



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United Nations

Resolution A.53/32 of the General Assembly– *Oceans and the law of the sea*

Point 21..... invites States to cooperate in carrying out hydrographic surveys and in providing nautical services for the purpose of ensuring safe navigation as well as to ensure the greatest uniformity in charts and nautical publications and to coordinate their activities so that hydrography and nautical information is available on a world-wide scale



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GET TO KNOW THE IHO

INTERNATIONAL
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Dedicated to supporting safe navigation and protection of the environment

WHAT WE DO



COORDINATE
activities among national
hydrographic offices



MAINTAIN
uniformity in nautical
charts and documents



ADOPT
effective methods of
collecting and sharing
hydrographic data

DEVELOP & PROMOTE
the field of hydrography
and related technologies

MEMBER STATES

98 

HEADQUARTERS



MONACO

At the invitation of H.S.H.
Prince Albert I of Monaco

ESTABLISHED

1921

Following the first
international
conference in 1919



LEADERSHIP

1 Secretary General

2 Directors

Elected every three years



HYDROGRAPHY

By mapping water depth,
the shape of the seafloor
and coastline, and the
location of possible
obstructions, hydrography
helps maintain safe
navigation and supports all
other marine activities.

iho.int

- Intergovernmental Organization in its own right
- Governance very similar to UN Bodies: Assembly/Council
- Technical consultative Organization: works with recommended standards



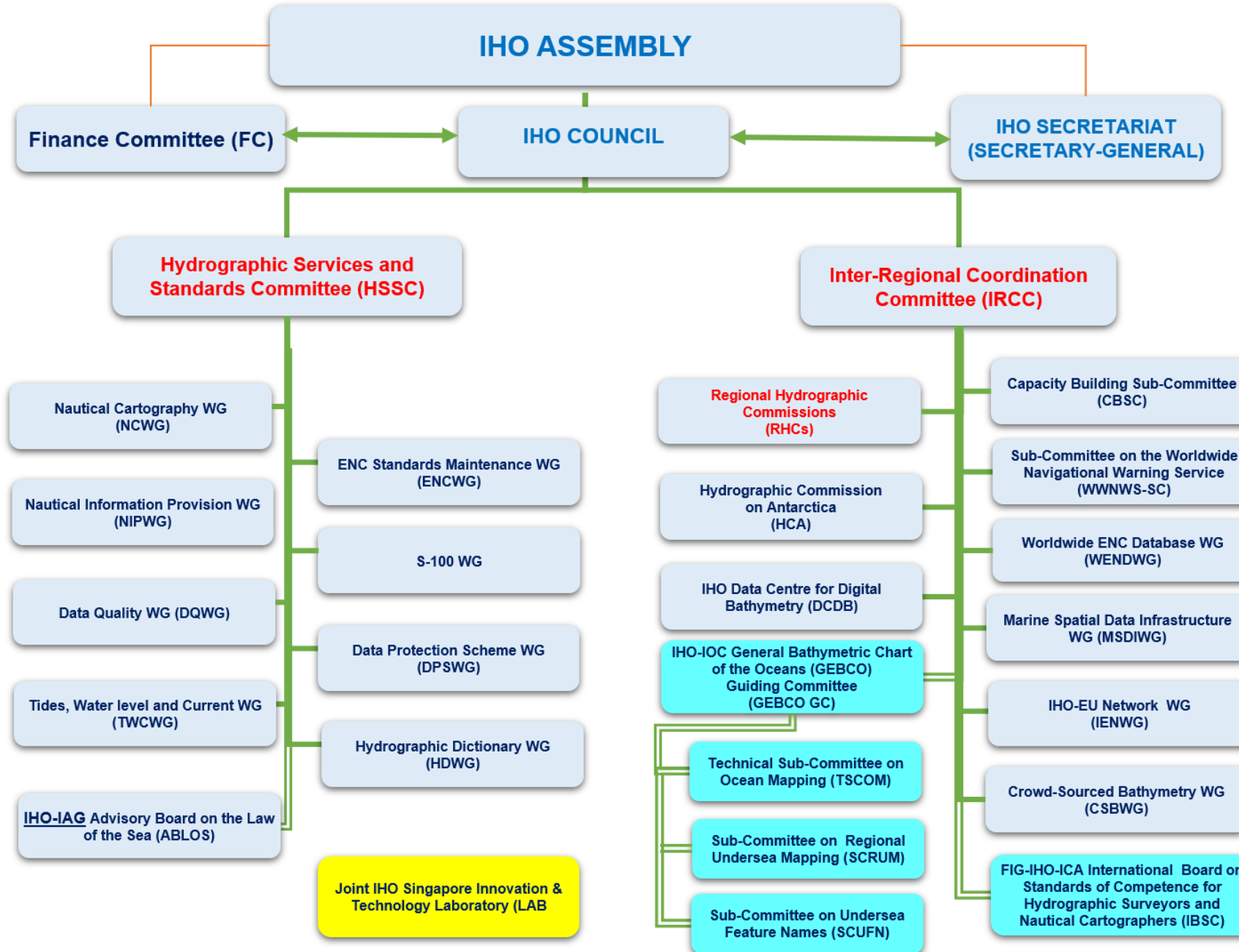
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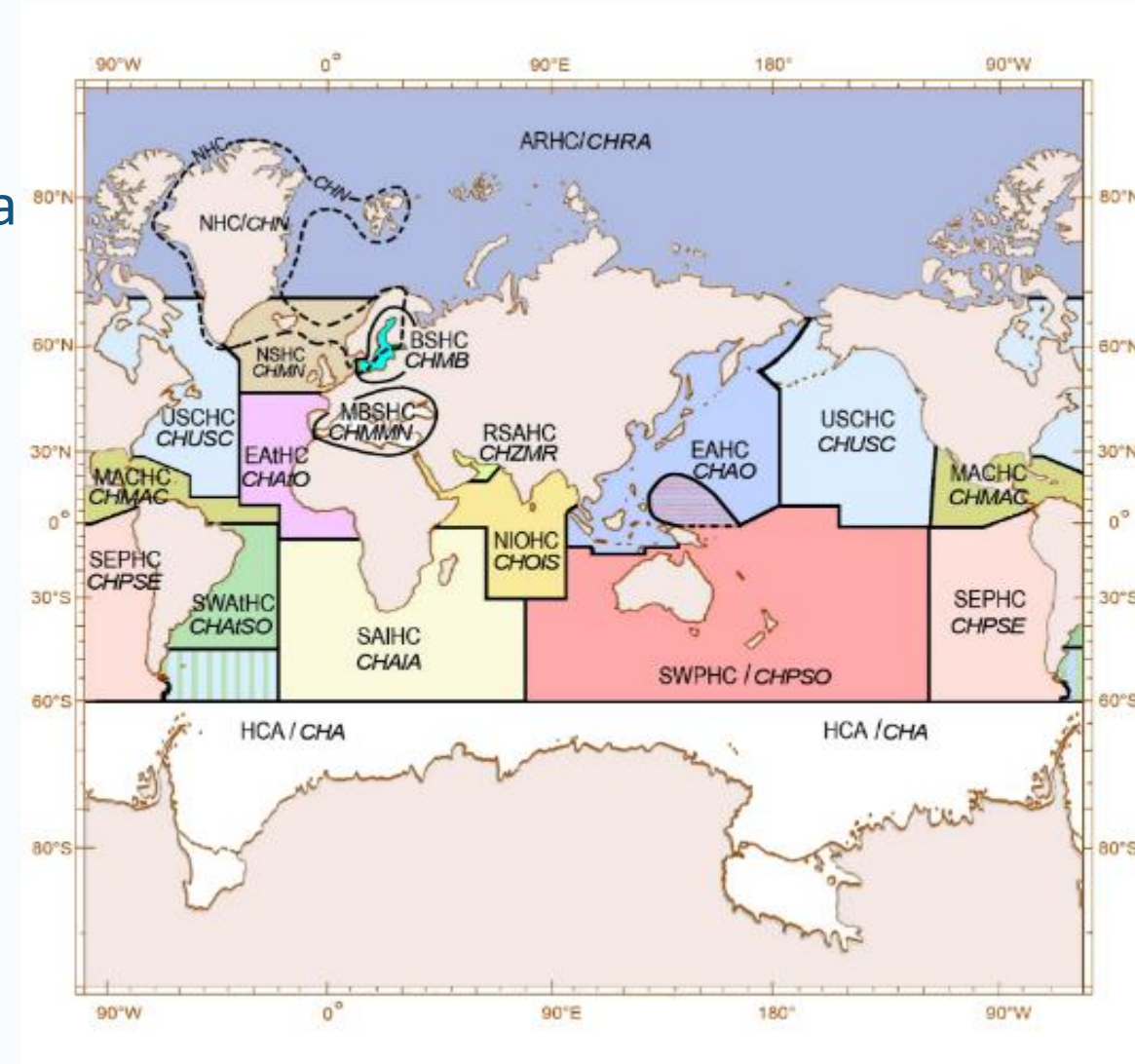


Regional Hydrographic Commissions

15 RHCs + Hydrographic Commission on Antarctica

Regional coordination of

- Charting schemes
- Capacity building and assistance
- Bilateral cooperation
- Technical cooperation
- Training



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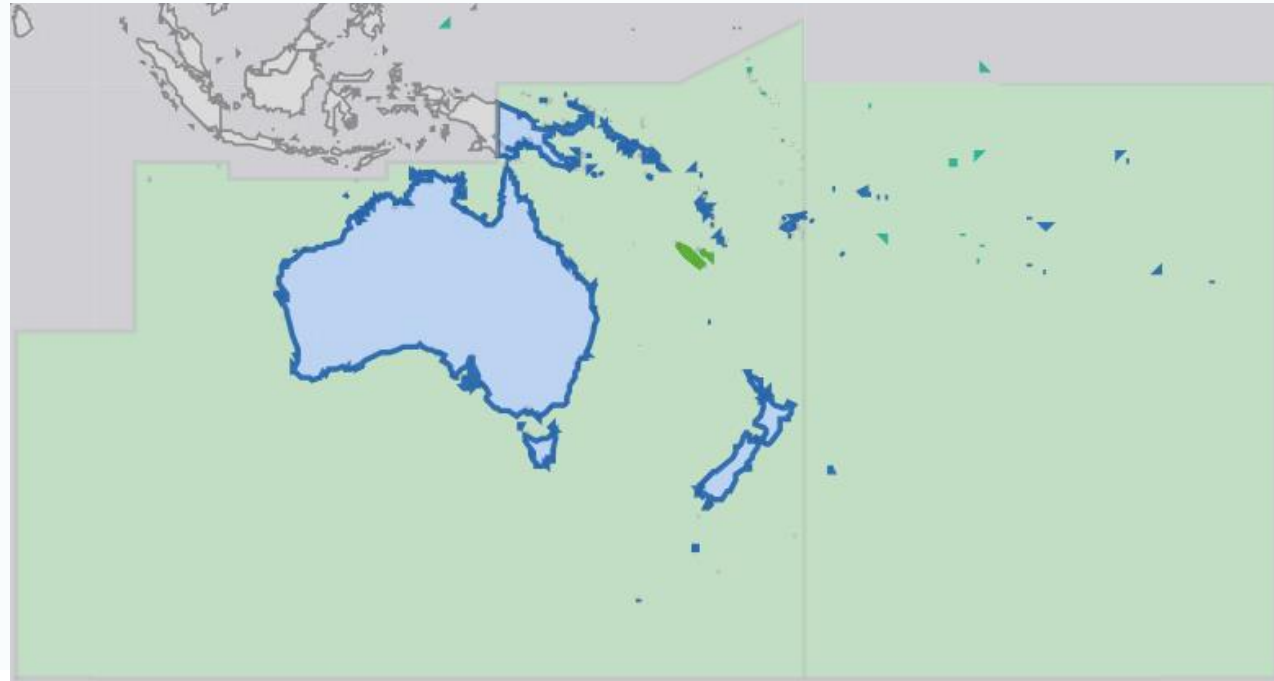
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South West Pacific HC

Members:	Australia, Fiji, France, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, UK, USA, Vanuatu.
Associate Members:	Cook Islands, Indonesia, Kiribati, Nauru, Niue, Palau.



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Why become a member?

- Better position to **comply with** the relevant **hydrographic obligations**.
- **Receive advice and experience** for improving hydrographic capacity.
- **Participate in IHO activities**, make direct contact with other hydrographic services, and to work in partnership through the Regional Hydrographic Commissions.
- Access the **IHO's capacity building programmes**.
- Participate in all aspects of the Organization – Committees and working groups.



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HOW TO JOIN THE IHO

- Contact the IHO secretariat info@iho.iht or me ADCC@iho.int
- Member States of the United Nations may join the IHO by submitting a Letter of Accession to the Convention.
- Publication M-2 provide guidance and examples of letters (https://iho.int/uploads/user/pubs/misc/M-2_3.0.7_E_19082022.pdf)



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CAPACITY BUILDING OBJECTIVE

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Contribute to the creation of capacities to a sustainable development



- Continuously assesses the status of hydrographic surveying, nautical charting and maritime safety information worldwide (CB Phases)
- Close relationships with national agencies and international organizations
- Cooperates with Regional Hydrographic Commissions

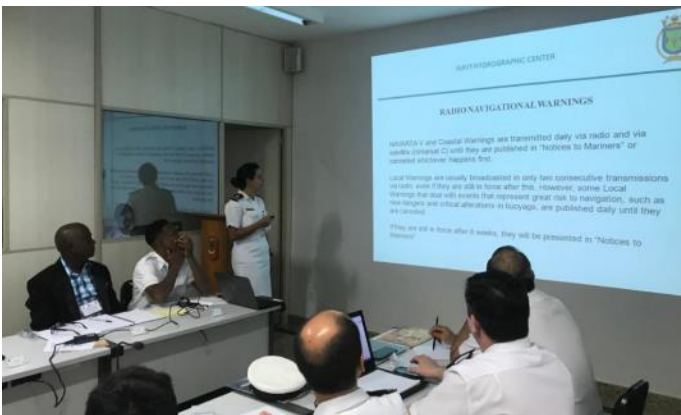
<i>Coastal State/Territory</i>	<i>NH[C]C</i>	<i>Phase 1</i>	<i>Phase 2</i>	<i>Phase 3</i>	<i>Last TV</i>
Albania	1	3	2/3	2/3	2016
Algeria	0	3	4	2/3	-
Bulgaria	1	4	2	3	N/A
Croatia	1	4	4	4	N/A
Cyprus	2	2	3	2	1999
Egypt	0	4	4	2/3	-
France	2	4	4	4	N/A
Georgia	2	2	2	2	2018
Greece	1	4	4	4	N/A
Israel	1	4	2	2	2014
Italy	2	4	4	4	N/A
Lebanon	1	1	1/3	1/3	2019
Libya	-1	-1	-1	-1	-
Malta	1	2	2	2	N/A
Monaco	0	3	3	3	N/A
Montenegro	0	2	2	2	2016
Morocco	0	3	3	3	-
Palestinian Authority	-1	-1	-1	-1	-
Romania	1	2	2	2	2008
Russian Federation	2	4	4	4	N/A
Serbia	0	2	2	2	-
Slovenia	0	4	4	4	N/A
Spain	2	4	4	4	N/A
Syrian Arab Republic	-1	-1	-1	-1	-
Tunisia	1	2	2	2/3	N/A
Turkey	2	4	4	4	N/A
Ukraine	1	4	4	4	N/A



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CB PHASES

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Phases of Development

Phase 0

Raise awareness



Phase 1

Collection and circulation of nautical information, necessary to maintain existing charts and publications up to date



Phase 2

Creation of a surveying capability to conduct:

- Coastal projects
- Offshore projects



Phase 3

Produce paper charts, ENC and publications independently

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CBSC ACTIVITIES

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Adopted 2022 CBWP

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Broad variety of activities:

- High level visits
- Technical visits
- Training
- Education
- Technical assistance
- Involvement in comprehensive projects

IHO WP Element: Capacity Building Provision - Technical Workshops, Seminars, Courses					
No.	Events	Responsible	Budget	Status	Resources
P-01	ROK Category "A" Programme	Secretariat	100,749 €	Led by USM, Hattiesburg, USA 1 August 2022-1 August 2023	ROK
P-02	ROK Category "B" Hydrographic Surveying Program	Secretariat	338,603 €	Led by KHOA, Busan, ROK 25 July 2022 - 9 December 2022	ROK
P-03	IHO-NF GEOMAC (Geospatial Marine Analysis and Cartography)	Secretariat	298,866 €	Led by UKHO, Tauton, UK September-December 2022	Nippon
P-04	Training for Trainers - Basic Hydrography	Secretariat	0 €	POSTPONED to 2023	ROK
P-05	Workshop on Disaster Response	SWPHC	33,500 €	Led by Dates	IHO
P-06	Seminar on Raising Awareness of Hydrography	NIOHC	17,250 €	Led by Dates	IHO
P-07	Bathymetric database management	SEPRHC	26,060 €	Led by INOCAR, Guayaquil, Ecuador 28/11/2022-02/12/2022	IHO
P-08	Workshop on MSDI Development & Implementation	MBSHC	17,200 €	Led by UNHO, combined with P42 05-09 December 2022 Istanbul, Turkey	IHO
P-09	MSI (training on establishment of MSI structure and basic MSI procedure)	MACHC	26,665 €	Led by Dates	IHO
P-10	Raising Hydrographic Awareness (for SAIHC Associate and Non-Members)	SAIHC	16,750 €	Led by Dates	IHO
P-11	Hydrography for Disaster Mitigation and Humanitarian Support	EAHC	22,360 €	Led by Dates	IHO
P-28	MSI Regional Workshop (from 2021 P-06)	SWPHC	34,400 €	Led by Dates	IHO
P-30	MSI (training on establishment of MSI structure and basic MSI procedure) (FORMER 2020 P-08 and 2021 P-07)	NIOHC	22,120 €	Led by Dates	IHO
P-31	MSI Course (from 2020 P-37 with updated costing and from 2021 P-09)	SAIHC	20,580 €	Led by Dates	IHO
P-33	Raising awareness workshop on S-100/S-101 (from 2021 P-11)	RSAHC	14,940 €	Led by Dates	IHO
P-34	Seminar on Raising Awareness of Hydrography (from 2021 P-12)	SWAtHC	3,160 €	Led by SHOMA, Montevideo, Uruguay 29 August 2022 DONE	IHO
P-35	Seminar on Raising Awareness of Hydrography (from 2021 P-13)	NIOHC	17,250 €	Led by UKHO, Bali, Indonesia 22 - 26 August 2022 DONE	IHO
P-36	Workshop on MSI implementation and development (from 2021 P-14)	SEPRHC	22,731 €	Led by CIOH, Cartagena de Indias, Colombia 26-30 September 2022 DONE	IHO
P-37	Developing and Implementing a Regional Framework for Disaster Mitigation and Management (from 2021 P-15)	EAHC	22,260 €	Led by Dates	IHO
P-38	Raising Hydrographic Awareness (for SAIHC Associate and Non-Members) (from 2021 P-16)	SAIHC	16,750 €	Led by UKHO, Maputo, Mozambique 05 - 12 May 2022 DONE	IHO
P-39	Seminar on Raising Awareness of Hydrography (from 2021 P-17)	MACHC	33,000 €	Led by UKHO, St Louis, Missouri 28/11/2022-02/12/2022	IHO
P-40	Port and Shallow Water Survey Course (from 2021 P-18)	SWAtHC	12,080 €	Led by DHN, Rio de Janeiro, Brazil 10-14 October 2022 DONE	IHO



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TYPICAL FUNDED ACTIVITIES

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Source of Funds

Phases

Some examples of activities

Non
earmarked:

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ROK

Other MS

Earmarked:

ROK

Nippon F.

Phase 0

Phase 1

Phase 2

Phase 3

Training

Workshops

Seminars

etc

High level visits
Technical visits

MSI Courses
Seminars
Workshops

ROK Hydrography CatA - USM
ROK Hydro/Carto CatB courses
ROK TFT courses Hydro/Carto

Nippon Foundation GeoMAC
course - UKHO



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PARTNERSHIPS

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IHO E-LEARNING CENTER

<https://elearning.iho.int/>

➤ Installed

➤ Necessary contents

4 e-Learning courses are loaded:

- 1 Hydrographic Surveying
- 1 Cartographic Production
- 2 MSDI

The screenshot displays the IHO E-Learning Center interface. At the top, there are search filters: a 'Category' dropdown menu, 'Registration Type' with checkboxes for 'Self-paced' and 'Instructor-led', 'Progress Status' with radio buttons for 'All', 'Accepting', 'Ongoing', and 'Closed', and 'Sort by application deadline' with radio buttons for 'Ascending' and 'Descending'. Below these is a search bar with a 'Search' button and links for 'Reload' and 'Detailed Search'. The main content area shows a grid of course cards. The first card is for 'MSDI Fundamentals of MSDI (Marine Spatial Data Infrastructure)' with a 'D-109' tag, 'Instructor-led' status, and a lecture time of 2h38m. The second card is for 'MSDI fundamentals' with a lecture time of 2h 28m. The third card is for 'Carto Fundamentals of Chart Production' with a lecture time of 5h35m. The fourth card is for 'Hydro Fundamentals of Hydrographic Survey' with a lecture time of 2h32m. Each card also displays an 'Enrollment Period'.



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EMPOWERING WOMEN IN HYDROGRAPHY PROJECT 2022

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- Local event on 9 March 2023, with Monaco Government
- **Webinar on Workplace Psychology VTC by 30 March**
- **EWH Mentoring Programme – 11 mentors and 22 mentees so far**
- **At-sea experience offered by NOAA (3 participants) [CL04/2023] Until 28 February 2023**
- 3rd Session of Assembly event Empowering Women in Hydrography (1 May 2023, 17:00 – 18:00 at Grimaldi Forum). **8 participants will be sponsored to also attend the A-3**



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CAPACITY BUILDING PROGRAMME – REGULAR OFFER OF EARMARKED FUNDS

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- 2 students for Master of Science Programme in Hydrographic Science at the University of Southern Mississippi (USA), sponsored by the Republic of Korea (1 year) [\[CL34/2022\]](#)
- **7 students for the GEOMAC courses in Cartography Cat B – UKHO** - sponsored by Nippon Foundation (4,5 months) [\[CL08/2022\]](#)
- **10 students for Cat B Hydrographic Survey/Nautical Cartography Programme** sponsored by the Republic of Korea (4,5 months) [\[CL07/2023\]](#) **Until 20 March 2023**
- 10 /20 Training for trainers in Hydrography or Nautical Cartography course sponsored by the Republic of Korea (2 weeks) [\[CL32/2021\]](#)

Hydrography provides the fundamental backdrop

for almost everything that happens
in, on or under the sea ...

THANK YOU!

Leonel Manteigas
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