

**21ST MEETING OF THE SOUTH WEST PACIFIC HYDROGRAPHIC COMMISSION (SWPHC21)
28,29 February and 1 March 2024
Nadi, Fiji**

NATIONAL REPORT FROM PAPUA NEW GUINEA TO THE SWPHC21

References:

- A. IHO Resolution 2/1997 as amended (see doc. C3-04.2A, [Appendix to Annex A](#))
- B. IHO Circular Letter 20/2019, The IHO Online Form System for responses to Circular Letters and input to IHO Publications (P-5 and C-55): [link](#)
Online system for P-5 (Yearbook): [link](#)
Online system for C-55 (Status of Surveys and Charting Worldwide): [link](#)
- C. IHO Strategic Plan: [link](#)
- D. IHO IRCC CL 01/2021 IHO Strategic Plan for 2021-2026 – Procedure for measuring the Strategic Performance Indicator (SPI) allocated to IRCC: [link](#)

1. Executive summary

Papua New Guinea has its Hydrographic Department setup within the National Maritime Safety Authority (NMSA). The NMSA under its mandate is responsible for implementing obligations under international maritime conventions such as SOLAS, MARPOL and STCW.

NMSA implements its strategic objectives through 5-year Corporate Plan. The current Corporate Plan 2020 – 2024 outlines a number of key strategic actions for hydrography and nautical charting, i.e;

- Develop and enhance hydrographic capacity
- Monitor shipping lanes for safety of navigation
- Develop and implement training plan
- Digitalization of processes for efficiency

As part of the corporate plan review the Hydrographic department plans to introduce policy initiatives to address existing gaps in hydrographic governance.

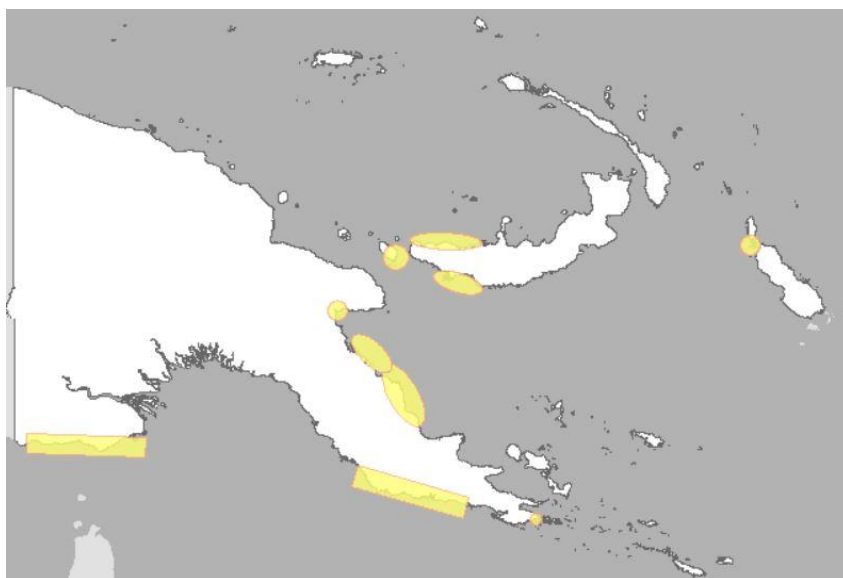
These initiative will include a developing a national hydrographic strategy, establishing institutional arrangements for collaboration with government agencies and industry and reviewing existing bilateral arrangements with Australia.

Following consultation with the Department of National Planning in 2023 national hydrographic activities will be aligned to support PNGs Medium Term Development Plan IV 2023 – 2027. Under MTDP IV, the government aims to develop sea transport system by investing in infrastructure development in ports, wharves, marine aids to navigation and shipping services.

2. Surveys

No new surveys have been undertaken during this reporting period, however a number priority areas of interest for hydrographic surveys have been identified through stakeholder engagement through three workshops and a meeting held in 2023.

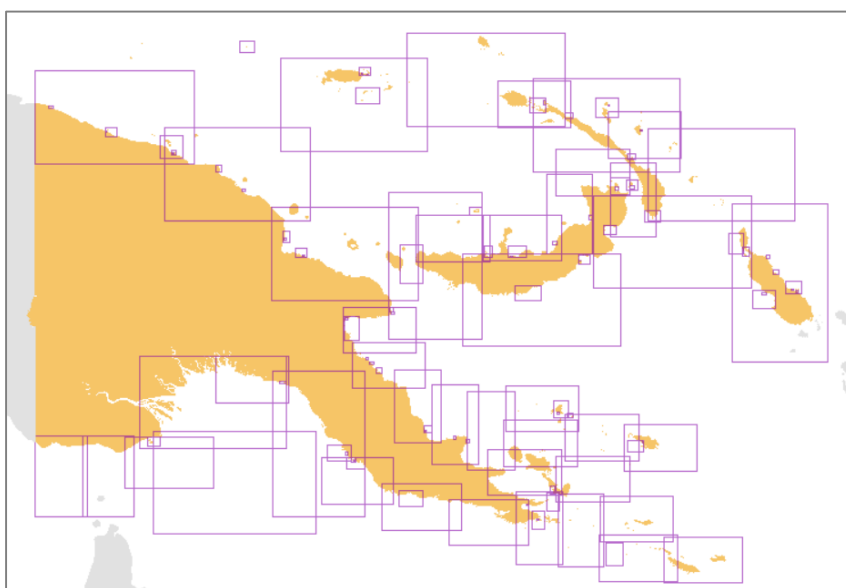
- Umboi island, Gloucester, southwest coast of new britain
- Inner route Port Moresby to Brummer Island
- Madehas Island, Buka passage
- Dyke Ackland Bay - Cape Ward Hunt
- Nassau Bay – Cape Ward Hunt
- Daru to Health Bay



3. Nautical charts

a) Coverage

Full coverage for ENC (168) and Paper Charts (80).



b) ENC distribution method

- Through the Australian Hydrographic Office AusENC service or acquire equivalent ENC coverage by subscribing to an IC-ENC (<http://www.ic-enc.org/>) or PRIMAR (<http://www.primar.org/>)
- PNG currently plans to become member of IC-ENC, specifically for opportunities in technical support and training.

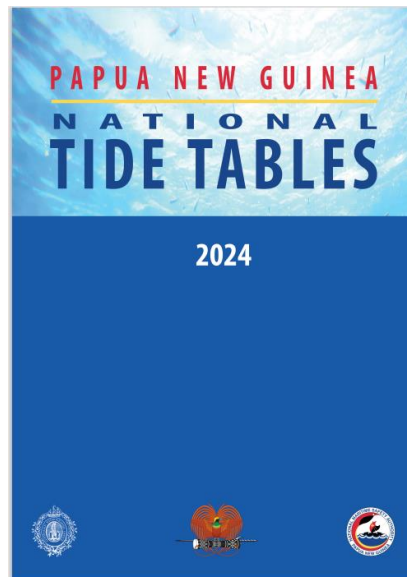
c) Paper charts distribution method

Paper charts for PNG waters are purchased from the AHO and resold to PNG domestic customers from NMSA Port Moresby office. On average a total of 1200 charts are sold annually.

4. New publications & updates:**Annual National Tide Table**

Under the PCA arrangements with Australia, PNG National Tide Tables are published by the AHO as a separate book and available online in pdf copy.

Printed copies are made available by NMSA and distributed for government use.

**5. MSI**

PNG is yet to properly establish National MSI Coordinator responsibilities and infrastructure to disseminate MSI as required World-wide Navigation Warning Service.

6. C-55

No update is available during this reporting period.

7. Capacity Building

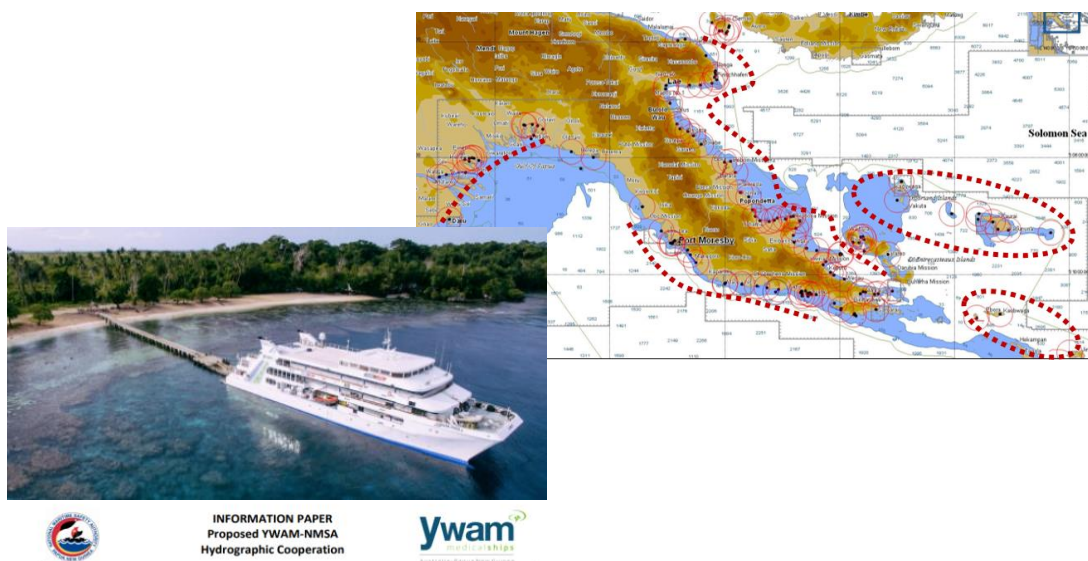
a) Trainings received

Title/Description	Sponsor
2 officers attend MSI Training (IHO/SWPHC), Suva Fiji, Jul 2023	IHO/NMSA
1 officer attend Applied Hydrographic Survey Program (Fugro Academy), UK, Aug-Dec 2023	NMSA
1 officer attending S-5B Hydrographic Surveyor Course (IIC)	AHO
1 officer attending S-8B Marine Geospatial Information Program (IIC)	AHO

8. Oceanographic activities

a) Crowdsourced Bathymetry Activities

NMSA and the [YWAM Medical Ships](#) – Australia & Papua New Guinea signed an MOU in Aug 2022, agreeing to cooperate in rural health care services and community development along coastal communities. A component of this MOU is cooperation in collection and reporting of hydrographic data & information for purpose of updating nautical charts



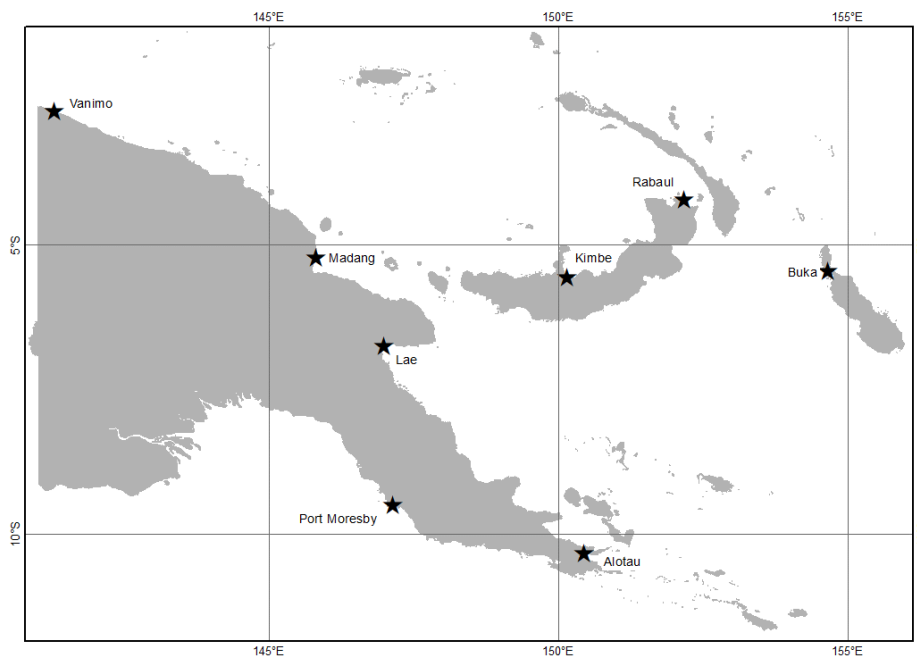
YWAM ships have been operating in PNG for over 10 years, mostly along the southern coast and central parts of mainland. Data collected has been from single beam and multibeam data to support its operations over unsurveyed areas as follows;

- Daru to Kussa Island, Mata kawa Island and Health Bay
- Gulf of Papua
- Hood Point to Table Bay
- Salamaua to Cape Ward and Dyke Ackland Bay
- Cape Cretin to Wasu

The data collected so far is likely to contribute to updating of up to 30 paper charts, thus providing significant improvement to safety of navigation for domestic ships.

b) Tide gauge network

NMSA assumed responsibility of eight (8) tide gauges installed under the ADB Maritime Waterways Project. The tide stations are located across major ports of Papua New Guinea.



Currently Status

	Station Name	Sensor type	Status Description
1	Alotau	Radar	Operational
2	Buka	--	Faulty
3	Kimbe	Radar	Operational
4	Lae	Radar	Operational
5	Madang	Radar	Operational
6	Port Moresby	--	Removed due to port development.
7	Rabaul	Radar	Operational
8	Vanimo	--	Removed due to port development


NMSA has allocated budget and work plan to cover for a maintenance agreement with the local contractor.

The challenges for PNG is its lack of capacity to undertake geodetic surveying and levelling and data management. NMSA plans to request training and technical support from IHO CBSC and regional partners address the challenges.

c) Procurement of Single Beam Echosounder

Signed a contract in September 2023 for training, supply and deliver CEESCOPE NovAtel 729 RTK Survey Kit (SBES). Operator training for three surveyors expected to be delivered in Sydney, Australia by mid 2024 and delivery of equipment thereafter.

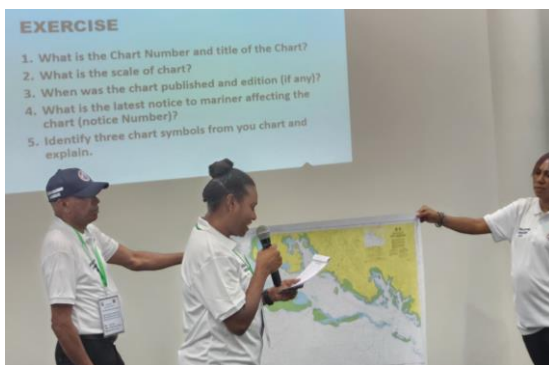
The Single Beam echosounder kit will enable small hydrographic survey projects within ports and harbour areas.

	<p>CEESCOPE™ NovAtel 729 RTK Hydrographic Survey System</p> <p>Features:</p> <ul style="list-style-type: none"> Internal data logging, Bluetooth, Industrial LAN, RS232, connectivity via K series LEMO connectors, high capacity internal rechargeable battery, High bright touch screen LCD. NovAtel OEM729 RTK GNSS L1/L2 GPS, L1/L2 GLONASS 555 Channels for Multi-Constellation GNSS 20Hz GNSS Position Output L-Band enabled (requires TERRASTAR active subscription) HF echo sounder (200kHz) with 20 Hz ping rate Internal UHF radio for receiving RTCM (403 – 473 MHz frequency range) - Requires users own RTK Base Station Maximum depth 200m 
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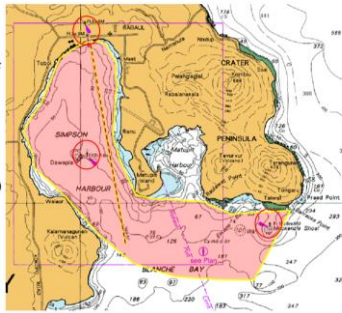
9. Preparation for responses to disasters

As part of initiating preparation for responses to disaster, NMSA hosted a 3-day workshop 13 – 15 November 2023, for 20 participants' from the provincial disaster offices.

The focus was around maritime search & rescue coordination between NMSA and national disaster office, however an opportunity was presented for hydrographic session. This session covered a presentation on hydrography and nautical charts, including an exercise on the hydrographic response to a volcanic eruption in Rabaul port, on of the high risk ports.



Marine Disaster Response – Volcanic eruption

<p>Response Plan Purpose: <i>Re-establish transport route into port for delivery of relief supplies.</i></p> <p>Phase 1</p> <ul style="list-style-type: none"> Initial site assessment Issue navigation warning (ships) Channel Hydrographic survey Mapping of hazards* Recovery/clearance plan Re-establish infrastructure (lights) <p>Phase 2</p> <ul style="list-style-type: none"> Resurvey channel Cancel navigational warning Update chart PNG 680 		<p>Requirements</p> <ul style="list-style-type: none"> Disaster risk mapping Baseline charts are updated and accessible NDC contacts Hydrographic response plan to disaster External support arrangements (donate for foreign support) <p>Chart Ref: PNG 680</p>
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10. Conclusions

As PNG looks to develop hydrography, it will continue to raise awareness on the importance of national hydrographic services and engage more with government agencies, industry and private sector for the development of hydrographic capabilities.

The areas of particular concern is the lack of adequate human resources and technical capacity to implement SOLAS hydrographic responsibilities, hence the importance of establishing cooperation with other government and private entities.

The SWPHC Secretariat to note this report.