

24th MEETING OF THE MESO AMERICAN – CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC24)

NATIONAL REPORT FROM THE NETHERLANDS

Executive summary

- Satisfactory status for surveying in the MACHC area, especially with the availability of the Expeditionary Survey Boat and the deep water echo sounder o/b HNLMS Pelikaan.
- Satisfactory status for nautical charting in the MACHC area, especially with the delivery of the new HD ENC and S-102 test data set for Oranjestad, Aruba.
- Delivery of the EMODnet Bathymetry Caribbean grid as a European contribution to the Caribbean MSDI.
- Our Caribbean ENCs have become available for commercial online view services as part of the IC-ENC Online Product Viewing service.

1. Hydrographic Office / Service:

a) Name of the institution: Hydrographic Service of the Royal Netherlands Navy

b) Description:

Areas of responsibility are the waters of the Kingdom of the Netherlands in the Caribbean. These are the Leeward Islands (Aruba, Curaçao, Bonaire) and the Windward Islands (Sint Maarten, Saba, Sint Eustatius). Ref. Annex A.

c) Submitted by: Leendert Dorst, LL.Dorst@mindef.nl.

2. Surveys:

- The deep water echo sounder o/b HNLMS Pelikaan has been modified and is operational for speeds limited to 10 Kts in Dutch and American waters. Data recorded will be added to our database and that way becomes available in our web services, and subsequently for Seabed2030.
- The Expeditionary Survey Boat (ESB) is performing its first survey operations in the MACHC area in November and December of 2023. The tasking consists mainly of bathymetric surveys in approaches to Aruba to support the creation of (test) HD-ENC.

3. New charts & updates:

a) ENC coverage, gaps and overlaps

- Full ENC coverage for all appropriate usage bands. UK and FR are producer nations for the overview and general usage bands.
- A rescheming of ENCs is in progress. There will be less similarity between the paper chart scheme and the ENC scheme.

b) National paper charts

- New edition NL chart 2716 released.
- NL/SR small scale chart 2017 (Suriname and adjacent waters) withdrawn as a coproduction, in consultation with Suriname.

c) Challenges and achievements

HD-ENCs (in accordance with S65 Annex A) covering Oranjestad (Aruba) released. More HD ENC's to follow.

4. New publications & updates:

List Of Lights HP2B (Caribbean Sea), freely available via web site¹, is regularly updated.

5. MSI: Ref. Annex C.

6. C-55: Ref. Annex B.

7. Capacity Building, offered:

Practical traineeship on board NL survey vessels.

8. Oceanographic activities:

During the Caribbean ESB deployment a GNSS-based tide gauge campaign will be executed by the crew to model the Ellipsoidal Referenced Survey (ERS) separations for Curaçao.

9. Spatial data infrastructures

- Our Caribbean survey data and metadata are available for download in the EMODNet portal at a 20 m resolution.
- Our Caribbean survey data are also available as an integrated part of the EMODnet Bathymetry grid of 2022, which includes a part of the Caribbean Sea.
- NL offers web services for its geographic names and gridded bathymetric data of the Caribbean Sea. The services have been included in the DCDB Viewer.
- The Netherlands ENC's for the Caribbean Sea are available for online viewing in the MACHC ENC Online application. This tool is used to improve the two-way communication with local data providers.

data set	type	URL
Geographic names at sea	WMS	https://inspire.caris.nl/server/services/ows/view/map/namen-carib_IVS
	WFS	https://inspire.caris.nl/server/services/ows/download/feature/namen-carib_IDS
Bathymetry	WMS	https://inspire.caris.nl/gs5/carib_noord/wms (Sint Maarten, Saba, Sint Eustatius) https://inspire.caris.nl/gs5/carib_zuid/wms (Aruba, Curaçao, Bonaire)
	WCS:	https://inspire.caris.nl/gs5/carib_noord/wcs (Sint Maarten, Saba, Sint Eustatius) https://inspire.caris.nl/gs5/carib_zuid/wcs (Aruba, Curaçao, Bonaire)

Table: URLs for the Caribbean web services of RNLN

¹ <https://www.defensie.nl/onderwerpen/hydrografie/downloads/publicaties/2022/07/27/hp2b>

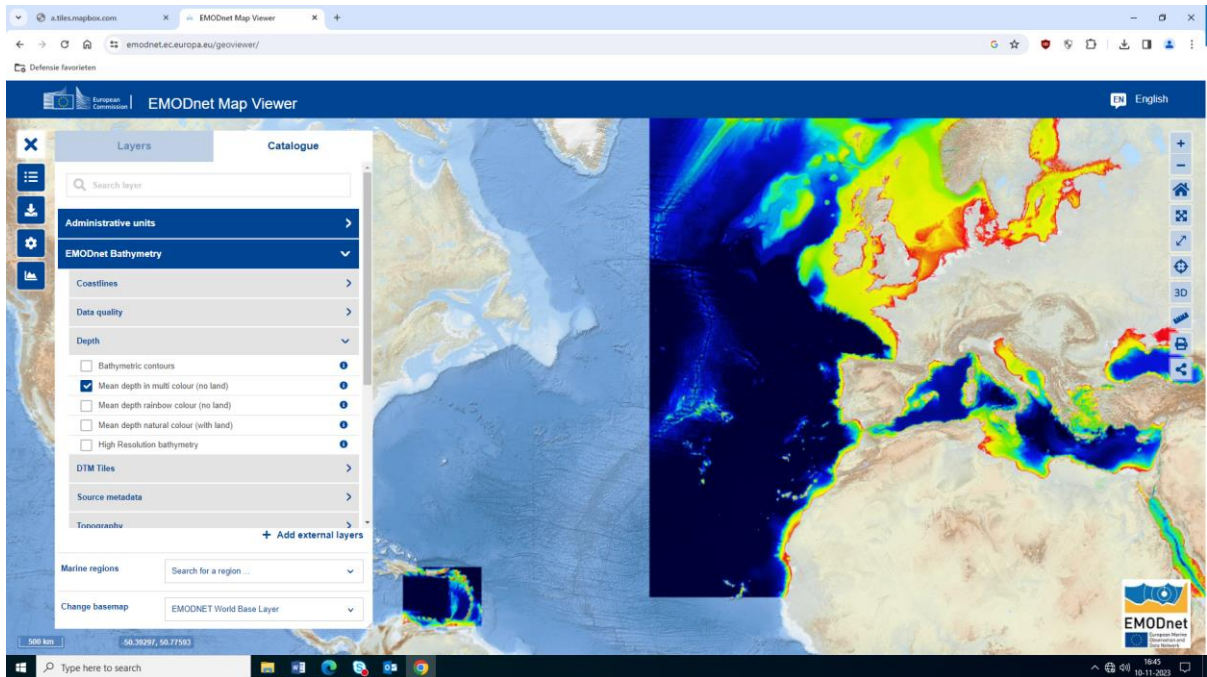


Figure: EMODNet Bathymetry grid including a part of the Caribbean Sea.

10. Innovation

a) Use of new technologies

NL developed a Caribbean test data sets for S-102 (Gridded Bathymetry), in addition to the S-122 (Marine protected Areas), S-123 (Marine radio services) and S-128 (Catalogue of Nautical Products) Caribbean test data sets developed in 2022. At present, the sets are in GML format (no formal exchange set yet) and can be viewed through an in-house developed Windows viewer. NL offers to share this data and the viewer. If interested please contact the NL delegation.

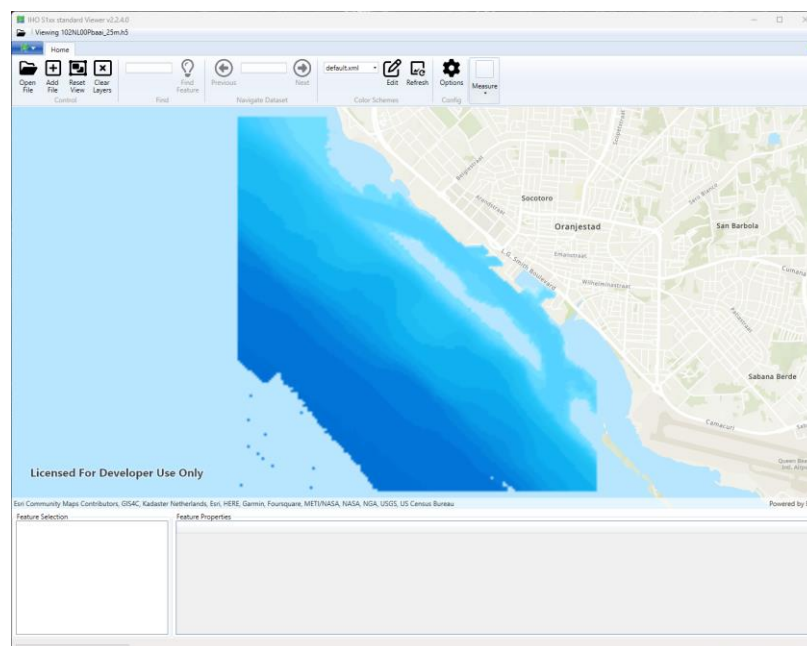


Figure: 25 m resolution S-102 test data set for Oranjestad, Aruba.

b) Risk assessment

The total NL responsibility area is divided in four categories. The Cat. 1 and Cat. 2 areas are surveyed using a MBES, a SSS, a SV profiler, and Fugro Marinestar ERS for horizontal and vertical positioning.

Cat. 1	0-40 m	Harbours and approaches	every 4 years
Cat. 2	0-40 m	Other coastal areas on South and West coasts	every 12 years
Cat. 3	0-200 m	Other areas up to 200 m	every 24 years
Cat. 4	> 200 m	All areas deeper than 200 m	every 50 years

Table: Categories for hydrographic surveys in the Caribbean waters of the Kingdom of the Netherlands

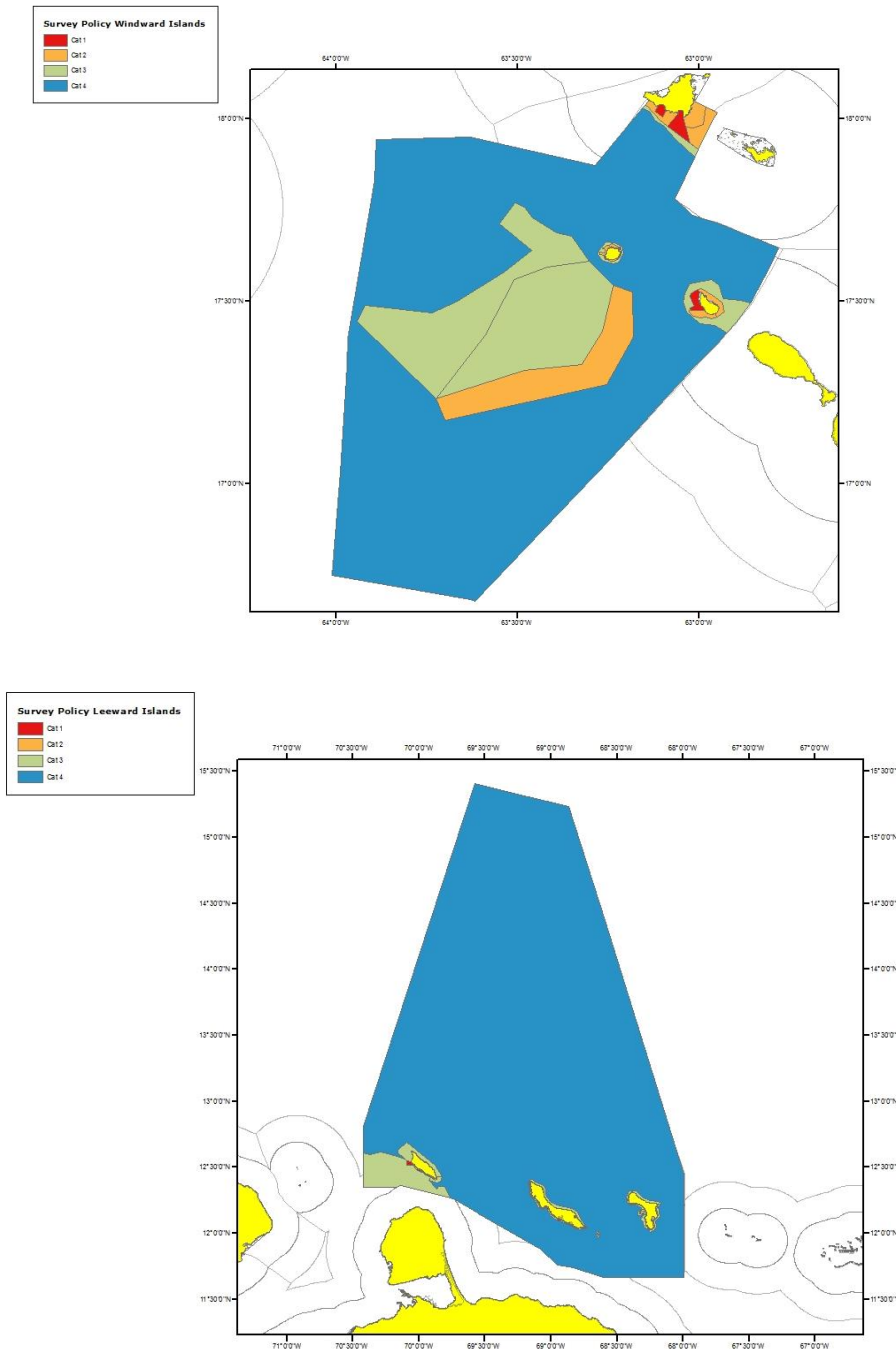


Figure: Survey Policy for the Windward Islands (upper) and Leeward Islands (lower).

c) Policy matters

- Active participation in the IHO Council.
- Active participation in the UN-GGIM Marine Geographic Information Working Group (MGIWG);
- Licences for ENC data for non-ECDIS navigation and online viewing are available through UKHO and IC-ENC.

11. Other activities

a) Participation in IHO meetings

- Continued active participation in several groups.
- NL assumed vice chair role of IC-ENC Steering Committee.
- NL joined the Hydrographic Commission on Antarctica (HCA).

b) Preparation for responses to disasters:

RNLN Hydrographic seariders and their Mobile Hydrographic Package (MHP) are on 48 hour notice during the Caribbean hurricane season.

c) Engagement with the Maritime Administration

The Kingdom of the Netherlands was successfully audited in accordance with the IMO Member State Audit Scheme (IMSAS), with a focus on its two flag states: the Netherlands and Curaçao. To this end, there was active engagement with the Netherlands Directorate for Maritime Affairs and the Maritime Authority Curaçao (MAC) under the umbrella of the newly established Kingdom Maritime Administration (KMA).

d) International engagements:

Active engagement led by our Ministry of Foreign Affairs to establish our Caribbean international boundaries continues. The present situation is illustrated in the Figures on the next page.

The Treaty on the land border between the Kingdom of the Netherlands and the French Republic on Sint Maarten/Saint Martin has been signed on the island on 26 May. This includes the border for the inland waters of Simpson Bay Lagoon and Oyster Pond Bay. The signing ceremony is shown on page 7.

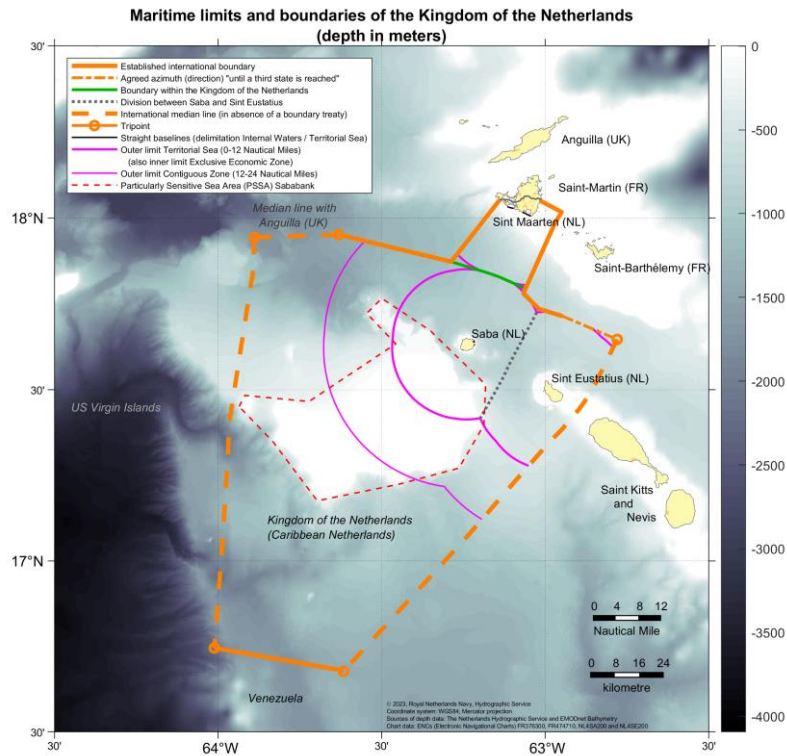


Figure: Maritime limits and boundaries for the Windward Islands. Note that the 2022 EMODnet bathymetric grid is used as a background.

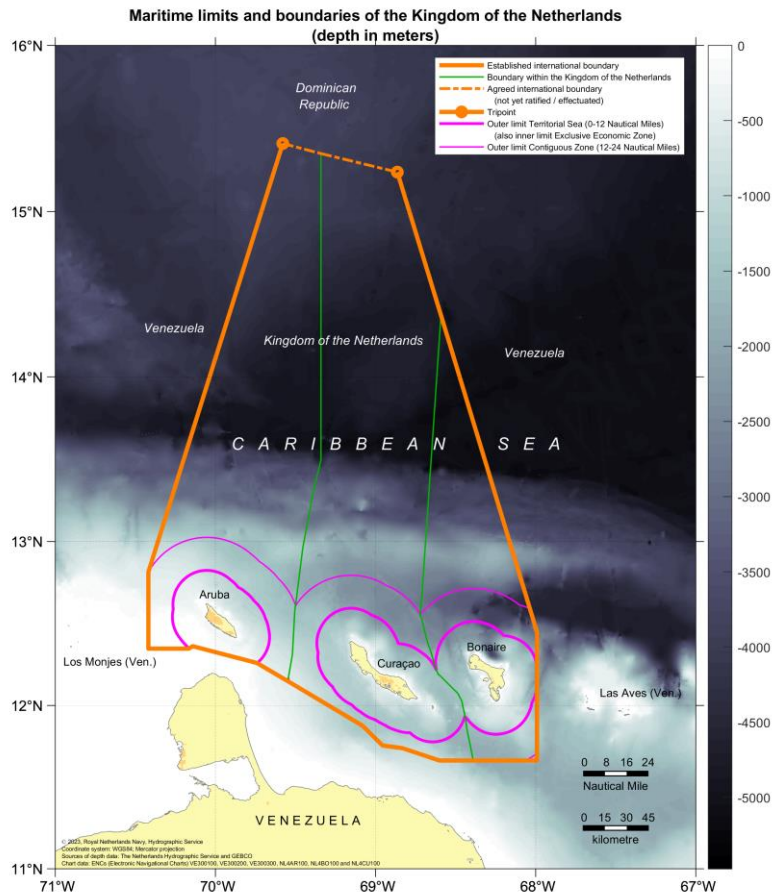


Figure: Maritime limits and boundaries for the Leeward Islands. Note that the 2023 GEBCO bathymetric grid is used as a background.



Figure: signing ceremony for the Treaty on the land border between the Kingdom of the Netherlands and the French Republic on Sint Maarten/Saint Martin. The signatories are the French Minister of the Interior Affairs Gérald Darmanin (left) and Prime Minister of Sint Maarten Silveria Jacobs (right)

12. Conclusions

- Satisfactory status for surveying in the MACHC area, especially with the availability of the Expeditionary Survey Boat and the deep water echo sounder o/b HNLMS Pelikaan.
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Annex A: Input to the IHO Publication P-5, Yearbook

Last update submitted 28 September 2022

No change.

Annex B: Input to the IHO Publication C-55, Status of Hydrographic Surveying and Charting Worldwide

Last update submitted 2 October 2022, reproduced here under for completeness.

	% Adequate		% Resurvey needed		% Never surveyed	
	<200m	>200m	<200m	>200m	<200m	>200m
Leeward Islands (Aruba, Bonaire, Curaçao)	89	28	11	72	0	0
Windward islands (Saba, Sint Eustatius, Sint Maarten)	100	97	0	3	0	0

Annex C: National MSI Self-Assessment Dutch Caribbean Coast Guard

1. Maritime area

The TTW and EEZ of the Dutch Caribbean islands Aruba, Curacao, Bonaire (ABC) and Saba, St Eustatius and St Maarten (SSS) as well as the SRR in the middle of the Caribbean Sea. GMDSS region classified as A2 area and under coverage of Inmarsat satellite for communication, distress and safety messages like EGC (enhanced Group Call).

2. Operational Points of Contact for the National Coordinator

INSTITUTION	TELEPHONE	FACSIMILE	EMAIL
JRCC	0059994637700	0059994637950	rcc.curacao@mindef.nl

3. GMDSS Master Plan

All required GMDSS up to date and daily checked.

INMARSAT-C (AOR-W + E, NAVTEX, VHF/UHF/HF radio telephony (including Emergency and shipping international channels), DSC VHF/MF, Satellite communication/iridium, telephone alarm number 913, COSPAS/SARSAT local user terminal via US MCC to JRCC Curacao, all equipment 24/7 monitored. Additionally SAROPS search and rescue planning and prediction program.

Equipment Type for Ports and Local Area	Software Version	Date of Up-date
VHF ABC and SSS islands port/ATC authorities		2015

Year Y-2		Year Y-1		Year Y	
Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
0	-	0	-	0	-

Above table cannot be filled accordingly due to still not having an official agreement with local maritime authorities regarding MSI responsibility. JRCC Curaçao still broadcasts MSI via SafetyNet when needed.

4. NAVTEX Coverage:

AREA H (IV) – VHF/UHF/MF – Navigational, Meteo and all desired urgency broadcasts. MMSI 003061000

5. Operational Issues:

NAVTEX station still having technical issues therefore not operational. End of November 23 will check what the possibilities are to have the station operational again. During outage we are broadcasting urgent messages via NAVAREA IV SafetyNet. Furthermore NAVAREA IV is informed and has broadcasted the message to seafarers and advising them to consult the local meteorological websites for meteorological broadcasts for the Leeward and Windward area.

6. Contingency Planning

New VHF/UHF radiotelephony network still in trials on Windward Caribbean islands. Possibility to have a VHF 16 station on Saba.

7. Capacity Building

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8. Other Activities

JRCC Curaçao is using the Satellite version of Marine Traffic for satellite AIS. This is very useful when contacting and identifying AIS vessels in our SRR due to the distance from a VHF shore AIS system.

9. National Maritime Website

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10. Recommendations

Request USMCC to possibly send Distress alerts also via email. This issue has already been brought forward at USMCC. At that time, it was not possible and they could only send messages via fax. In our opinion, fax machine/system is not always reliable. Still no feedback from USMCC on this matter. We are still receiving Distress alerts via fax.

11. Summary

JRCC Curacao

INMARSAT C 424402072

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24/7 monitor all GMDSS including all shipping&aircraft related COSPAS/SARSAT