

23rd MEETING OF THE MESO AMERICAN – CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC23)

NATIONAL REPORT FROM THE NETHERLANDS

Executive summary

- Satisfactory status for surveying in the MACHC area, especially with the availability of the Expeditionary Survey Boat.
- Satisfactory status for nautical charting in the MACHC area, especially with the delivery of the new List of Lights for the Caribbean Sea.
- Continuation of efforts to contribute to a Caribbean SDI, especially through EMODnet Bathymetry.
- Negotiations with France on the terrestrial and inland waters boundary on Sint Maarten/Saint Martin have been successfully concluded.

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 new Expeditionary Survey Boat (ESB) HNLMS Hydrograaf will become operational on 21 November. It has been designed for multi-day independent hydrographic deployment, with a crew of four. It could be deployed worldwide from one of the Landing Platform Docks (LPDs) of the RNLN.
- The maritime part of the LIDAR survey for Sint Maarten, in cooperation with local government and the World Bank, has been fully processed. This LIDAR survey follows a similar French LIDAR survey for Saint Martin and Saint Barthélemy. The data has been exchanged with Shom.
- The deep water echo sounder o/b HNLMS Pelikaan is still in the process of becoming operational, due to persistent air bubbles under the keel. Once operational, the data will be added to our database and that way becomes available in our web services, and subsequently for Seabed2030.



Figure: the ESB HNLMS Hydrograaf o/b the LPD HNLMS Johan de Witt

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 paper charts and ENCs is in progress. There will be less similarity between the paper chart scheme and the ENC scheme.

b) National paper charts

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c) Challenges and achievements

- Coproduction with UKHO of large scale paper charts of the Leeward Islands has been realized. The new edition of the overview chart 2023 of the Leeward islands has been published as a national chart. Because of UK's decision on the sunset of paper charts, talks on the possibility of coproduction charts for the Windward Islands did not commence.
- NL/SR coproduction small scale chart 2017 (Suriname and adjacent waters) will be replaced by SR/UK coproduction chart 2763, as soon as it will be published.

4. New publications & updates:

- Production of first HD-ENC's (in accordance with S65 Annex A) covering Oranjestad (Aruba) in progress.
- New List Of Lights HP2B (Caribbean Sea) freely available via NLHO web site¹, regularly updated.

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

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:

We are planning a GNSS-based water level measurement campaign in reference of the GRS80 ellipsoid in order to establish a better realization of chart datum (LAT).

9. Spatial data infrastructures

- NL has made its Caribbean survey data and metadata available for download in the EMODNet portal at a 20 m resolution, as part of the EMODnet Bathymetry project for 2021-2022.
- 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/g5/carib_noord/wms (Sint Maarten, Saba, Sint Eustatius)
		https://inspire.caris.nl/g5/carib_zuid/wms (Aruba, Curaçao, Bonaire)
	WCS:	https://inspire.caris.nl/g5/carib_noord/wcs (Sint Maarten, Saba, Sint Eustatius)
		https://inspire.caris.nl/g5/carib_zuid/wcs (Aruba, Curaçao, Bonaire)

Table: URLs for the Caribbean web services of RNLN

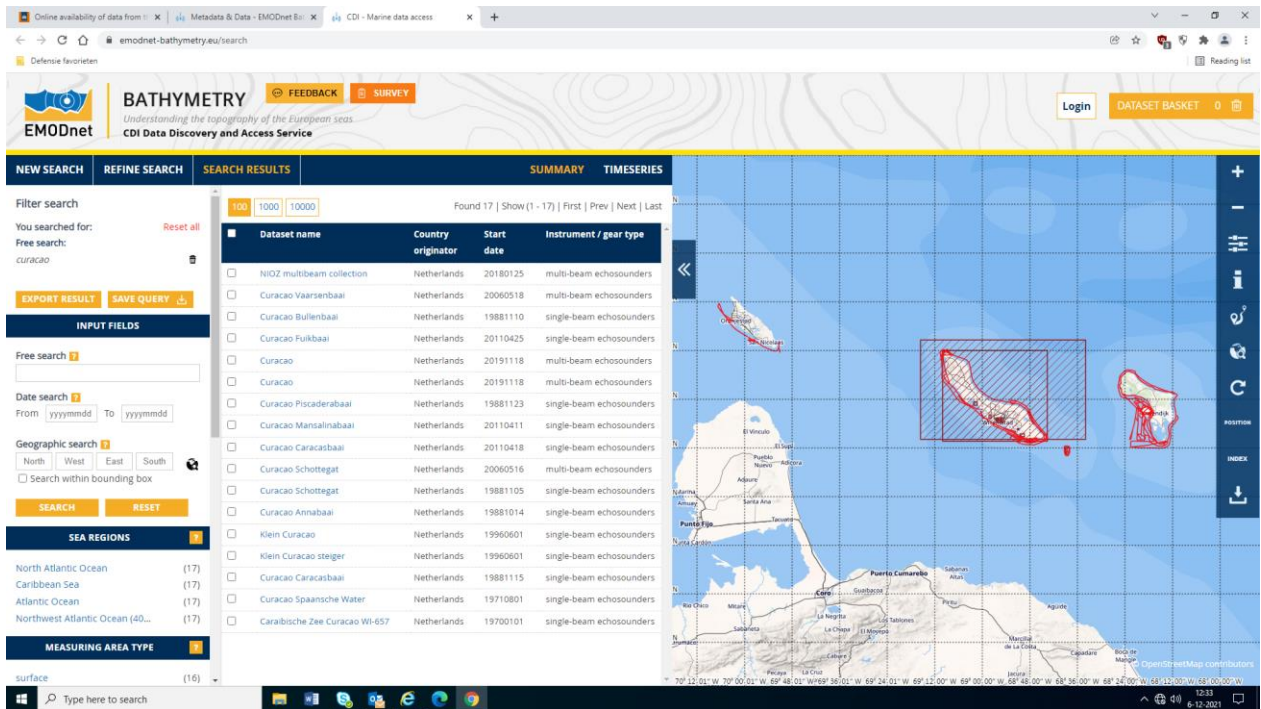


Figure: EMODNet Bathymetry metadata registration for our Windward and Leeward bathymetric surveys.

10. Innovation

a) Use of new technologies

NL has developed test data sets for S-122 (Marine protected Areas), S-123 (Marine radio services) and S-128 (Catalogue of Nautical Products) for part of its Caribbean charting area. 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.

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

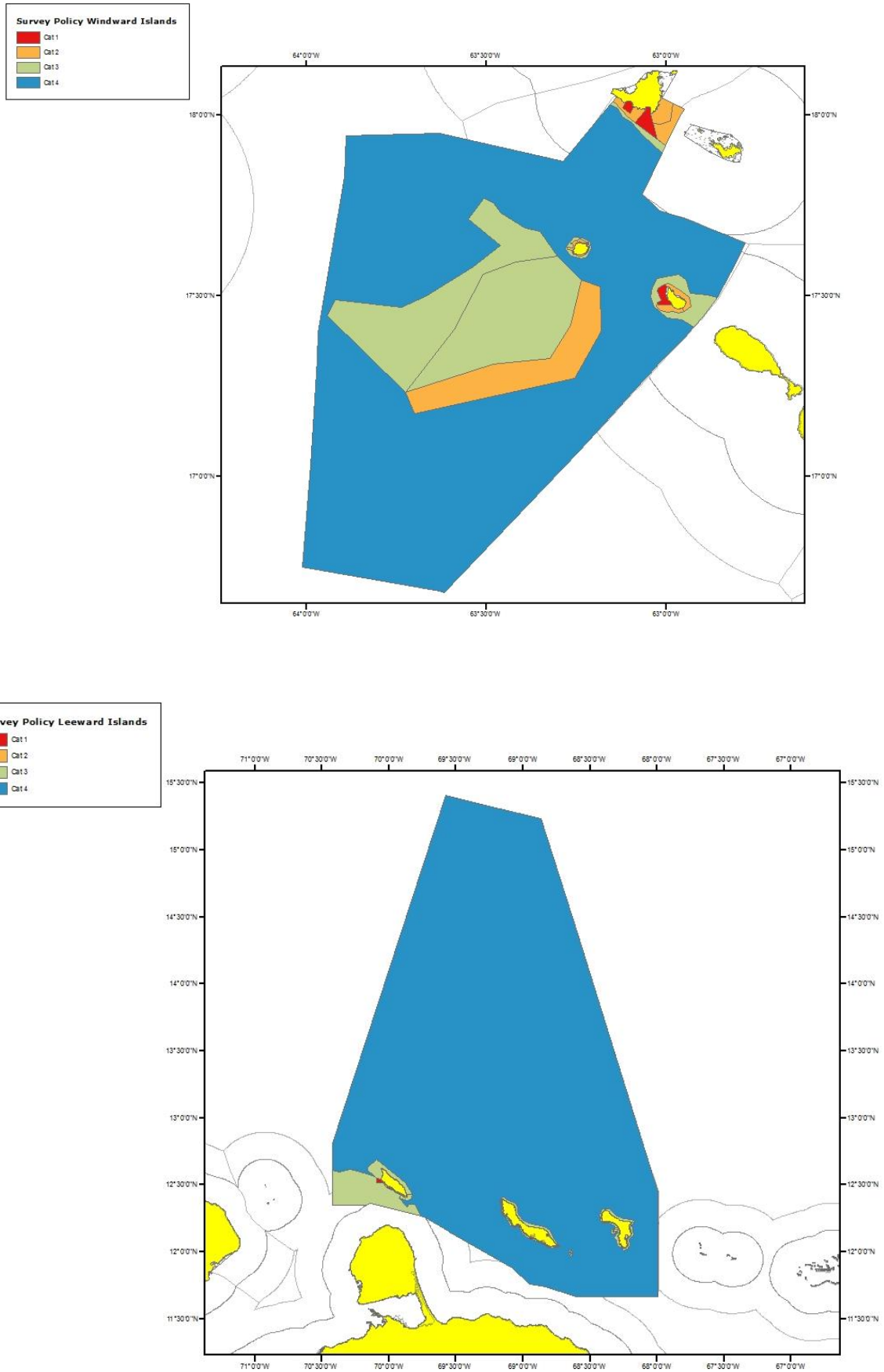


Figure: Survey Policy for the Windward Islands (upper) and Leeward Islands (lower).

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 are available through UKHO and IC-ENC.

11. Other activities

a) Participation in IHO meetings

Active participation in several groups.

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 is preparing itself for an IMO Member State Audit Scheme (IMSAS) audit in 2023, with a focus on its two flag states: the Netherlands and Curaçao. To this end, there is 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:

- On 27 September, negotiators of the French Republic and the Kingdom of the Netherlands reached agreement on the terrestrial boundary for Sint Maarten/Saint Martin as well as the inland waters boundary for the Simpson Bay Lagoon and the Oyster Pond Bay. The negotiated boundary connects on both sides with the maritime boundary as agreed in the Treaty of 2016. The ratification process has started.
- The delimitation Agreement with the Dominican Republic has been discussed by the House of Representatives of Dutch Parliament, in the active presence of representatives from Curaçao, on 4 October. The Agreement was approved on 11 October. The ratification process will be finished when Senate approves.



Figure: the negotiations of the French Republic and the Kingdom of the Netherlands, after reaching agreement on the terrestrial and inland waters boundary for Sint Maarten/Saint Martin. Picture taken on 27 September in Paris.

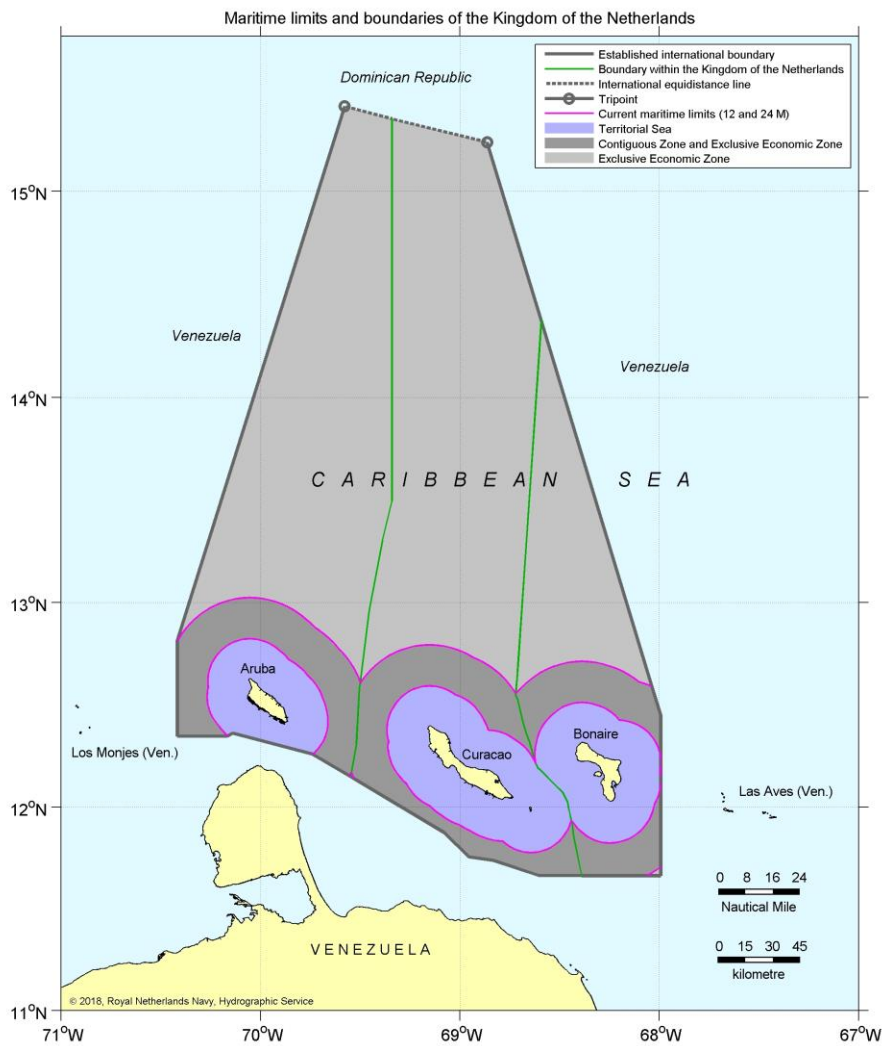


Figure: Maritime boundaries of the Leeward Islands.

12. Conclusions

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- Continuation of efforts to contribute to a Caribbean SDI, especially through EMODnet Bathymetry.
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Annex A: Input to the IHO Publication P-5, Yearbook

update submitted 28 September 2022

Capt. M.C.J. (Marc) van der Donck handed over the command of the Hydrographic Service to Capt. W.A. (Toine) Barten on 22 September 2022.

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

update submitted 2 October 2022

	% 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 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 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:

Planned maintenance of the NAVTEX station from 12 sept till 02 dec 2022. 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 planned on Windward Caribbean islands.

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 usefull 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