



NATIONAL REPORT FROM THE NETHERLANDS TO THE MACHC19

Executive summary

Satisfactory status for surveying and nautical charting in the MACHC area. The visit to local data providers and a research cruise improved the quality of data sets and nautical charting. In 2019, an MBES/SSS and a joint LIDAR survey will take place, as well as a visit to local data providers. Efforts to establish maritime boundaries with our neighbouring countries are continuing.

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).

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

Changes to our entry in IHO Publication P-5 (Yearbook) were submitted on 7 November 2018.

2. Surveys:

a) Coverage of new surveys:

The total NL responsibility area is divided in four categories, listed in Table 1 en depicted in Figure 1 . 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 1: categories for hydrographic surveys in the Caribbean waters of the Kingdom of the Netherlands

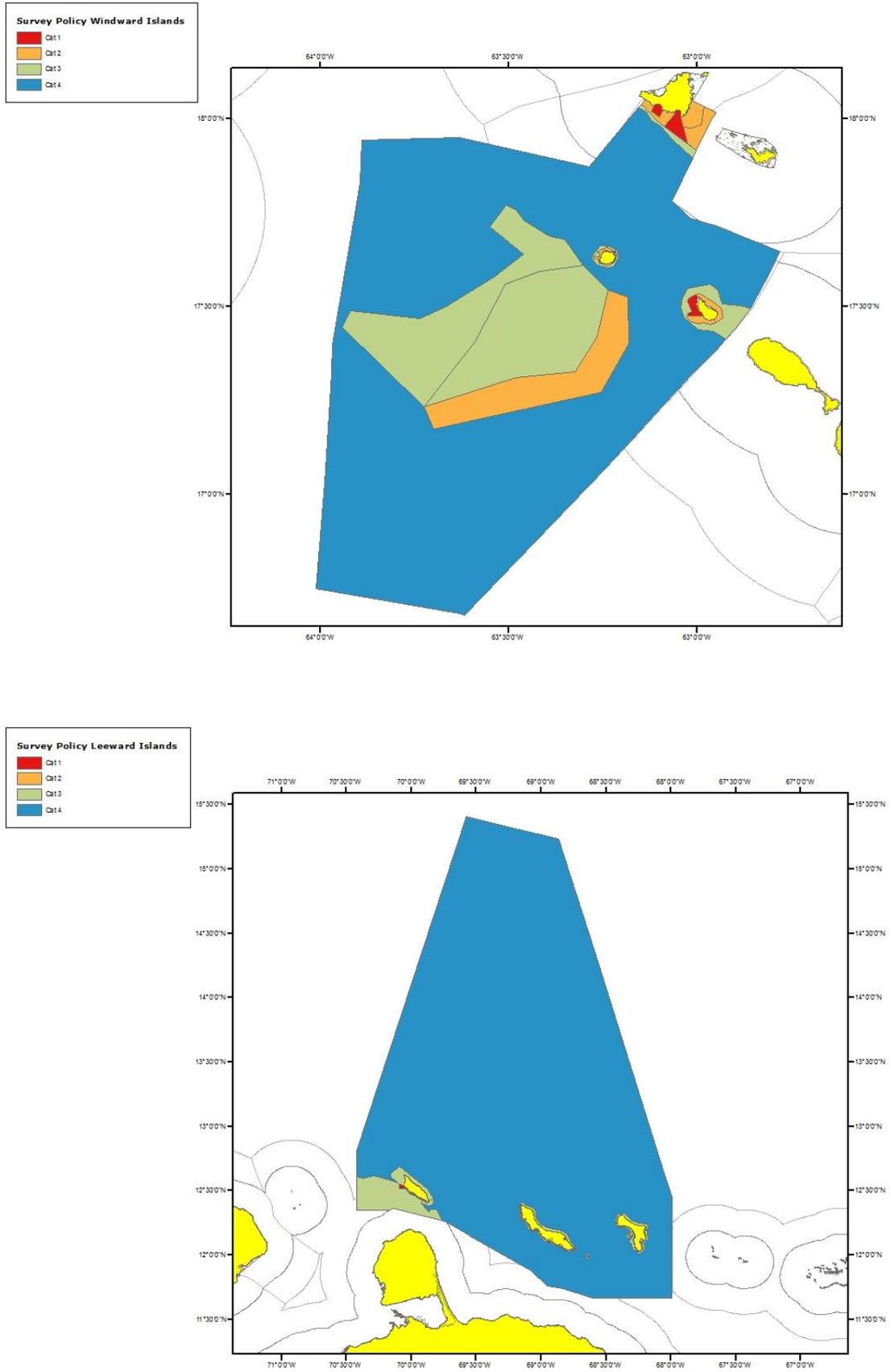


Figure 1: Survey Policy for the Windward Islands (upper) and Leeward Islands (lower).

The Royal Netherlands Institute for Sea Research (NIOZ) performed a scientific cruise in the Caribbean Sea in 2018, called Netherlands Initiative for Changing Oceans (NICO). During the cruise, Cat. 3 areas were surveyed with the deep water MBES of R/V Pelagia. No object detection was done, no water level reduction was applied, only limited SV corrections were made. This was a joint, coordinated effort with the Hydrographic Service, resulting in an S-44 order 2 data set.

An MBES/SSS survey for the Cat.1 and 2 areas of the Windward and Leeward islands is in the planning stages for the second half of 2019. A Hydrographic Survey Vessel and smaller platforms will be deployed. Also, a land/sea LIDAR survey for Sint Maarten will be tendered, in cooperation with local government and the World Bank. This LIDAR survey follows a similar French LIDAR survey for Saint Martin and Saint Barthélemy.

- b) new technologies/equipment: n/a
- c) new ships: n/a
- d) problems encountered: n/a

3. New charts & updates:

a) ENCs:

Full ENC coverage for all appropriate usage bands. UK and FR are producer nations for the overview and general usage bands.

A re-scheming of paper charts and ENCs is in preparation, for 2019 and later. There will be less similarity between the paper chart scheme and the ENC scheme.

b) ENC Distribution method: IC-ENC

c) RNCs: provided by UKHO as ARCS

d) INT charts: n/a

e) National paper charts:

A re-scheming of paper charts and ENCs is in preparation, for 2019 and later. There will be less similarity between the paper chart scheme and the ENC scheme.

f) Other charts, e.g. for pleasure craft: provided by commercial publishers under licence through UKHO as custodian.

g) Problems encountered:

The two-way data flow with local data providers is improved with visits to the Leeward Islands (2018) and Windward islands (2019), as well as by promoting MACHC ENC Online as a tool for local data providers to check the current status of the chart.

4. New publications & updates:

- a) New Publications: n/a, UK, FR and US promulgate nautical publications of NL waters.
- b) Updated publications: n/a
- c) Means of delivery, e.g. paper, digital: n/a
- d) Problems encountered: n/a

5. MSI

- a) Existing infrastructure for transmission: see Annex.
- b) New infrastructure in accordance with GMDSS Master Plan: see Annex.
- c) Problems encountered: see Annex.

6. C-55

Last update of C-55 provided in December 2017. The status of surveys is according to the tables 2 and 3, and the status of charting is 100%.

Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)
0-200m	23	77	0
> 200m	27	73	0

Table 2: Status of surveys for Leeward islands

Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)
0-200m	68	32	0
> 200m	97	3	0

Table 3: Status of surveys for Windward Islands

7. Capacity Building

a) Training received, needed, offered:

-received: n/a;

-needed: n/a;

-offered: practical traineeship on board NL survey vessels.

b) Status of national, bilateral, multilateral or regional development projects with a hydrographic component:

In accordance with our expired Memorandum of Understanding, the Maritime Authority of Suriname (MAS) and NLHO cooperate in the production of yearly Tide Tables for Suriname.

c) Description of requests to be considered by the IHO/CBSC: n/a

8. Oceanographic activities

a) General

The Geological Survey of the Netherlands released a new edition of the National Geological Chart, which includes the sea bed around the Leeward and windward Islands. The 2019 MBES survey may include oceanographic activities, in cooperation with the Royal Netherlands Institute for Sea research (NIOZ) and other stakeholders.

b) GEBCO/IBC's activities: n/a

c) Tide gauge network: n/a

d) New equipment: n/a

e) Problems encountered: n/a

9. MSDI Progress

a) The status of MSDI

NL offers an INSPIRE-compliant webservice for its geographic names and gridded bathymetric data of the Caribbean Sea, which will become available in the INSPIRE harmonized data format in 2019. See Table 2 for the URLs. Also, 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	name	URL
Geographic names at sea and large internal waters	INSPIRE View Service:	https://inspire.caris.nl/server/services/ows/view/map/namen-carib_IVS
	INSPIRE Download Service:	https://inspire.caris.nl/server/services/ows/download/feature/namen-carib_IDS
Representative Bathymetric data set ("RBB")	INSPIRE View Service:	https://inspire.caris.nl/server/services/ows/view/map/bathymetrie-carib_IVS
	OGC WCS:	https://inspire.caris.nl/server/services/ows/wcs/bathymetrie-carib_WCS

Table 2: URLs for web services in the Caribbean waters of the Kingdom of the Netherlands

b) plans for involvement in MSDI

It is our intention to start up additional INSPIRE harmonized web services for the Caribbean Sea, for administrative units (maritime zones) and area management (PSSA Sababank). Currently, these data sets are available for download from www.hydro.nl.

c) challenges facing the HO: n/a

10. Other activities

a) Participation in IHO Working Groups

Council; HSSC; IRCC; ENCWG; DQWG (chair); NCWG (host); NIPWG; MSDIWG; S-100WG; TWCWG; SPRWG; HS PT; S-121 PT; IC-ENC Steering Committee (chair).

b) Meteorological data collection: n/a

c) Geospatial studies: n/a

d) Disaster prevention: NL is involved in the review of IHO Resolution 1/2005.

e) Environmental protection: n/a

f) Astronomical observations: n/a

g) Magnetic/Gravity surveys: n/a

h) International

UN-GGIM: active participation in the UN-GGIM Marine Geographic Information Working Group (MGIWG).

Maritime boundaries: the situation is shown in Figure 2. The all-purpose maritime boundary between the Kingdom of the Netherlands and the French republic has been ratified and effected. Work continues on other maritime boundaries, and the Sint Maarten/Saint Martin internal waters boundary.

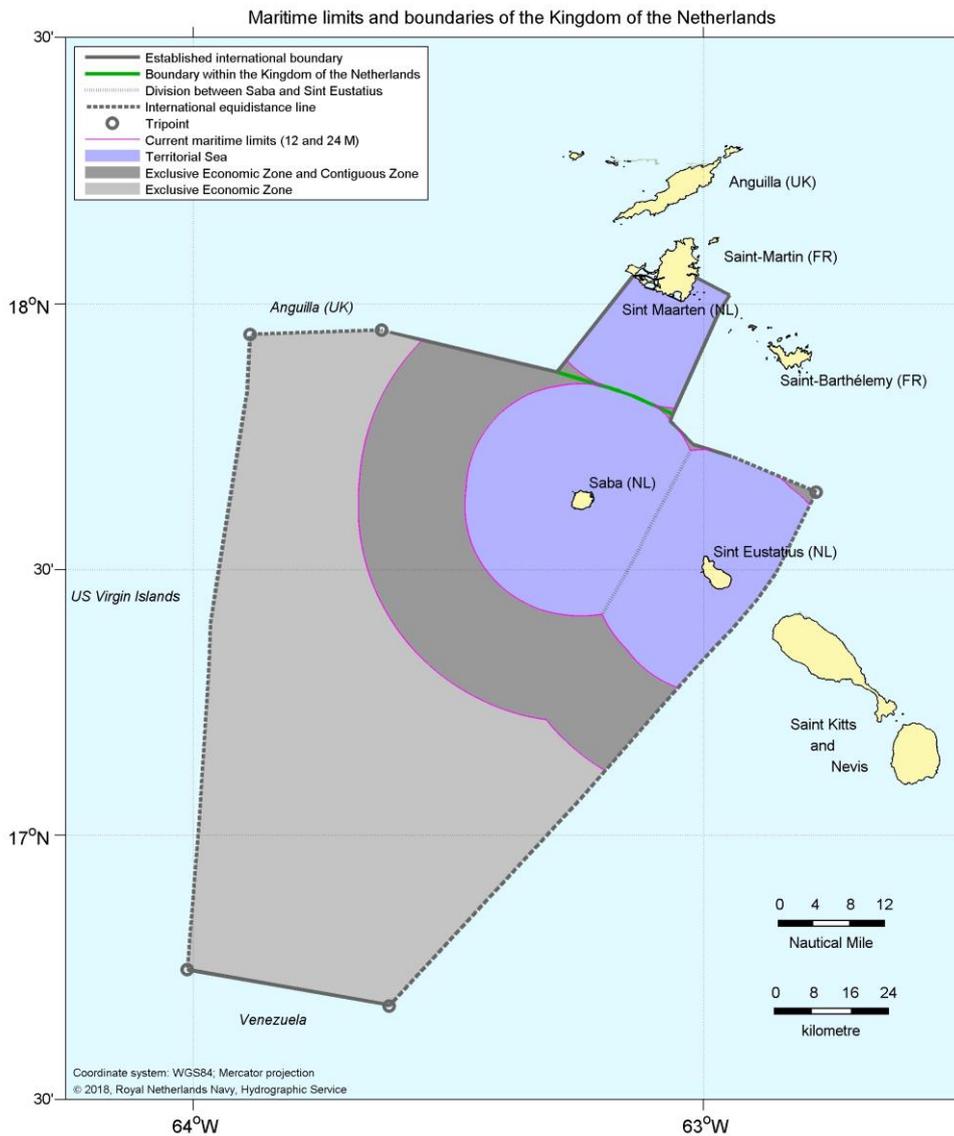


Figure 2: status of maritime limits and boundaries around the Windward Islands.

11. Summary Statement

a) Areas of significant achievement (main achievement during the year)

Satisfactory status for surveying and nautical charting in the MACHC area. The visit to local data providers and a research cruise improved the quality of data sets and nautical charting. In 2019, an MBES/SSS and a joint LIDAR survey will take place, as well as a visit to local data providers.

b) Areas of particular concern (main challenges and/or obstructions): n/a

c) Any other matters of interest to the MACHC

Efforts to establish maritime boundaries with our neighbouring countries are continuing.

d) Lessons learned to share

The two-way data flow with local data providers is improved by promoting MACHC ENC Online as a tool to check the current status of the chart.

National MSI Self-Assessment

Curacao

Dutch Caribbean Coast Guard

JRCC

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 Cell).

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 panning and prediction program.

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

Average depending cases:

Year Y-2		Year Y-1		Year Y	
Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
<i>01</i>	<i>30 Mins</i>	<i>01</i>	<i>30 Mins</i>	<i>x</i>	<i>xx.x Mins</i>

4. NAVTEX Coverage:

AREA H (IV) – VHF/UHF/MF – Navigational, Meteo and all desired urgency broadcasts. MMSI 430600099

5. Operational Issues:

Transmitter Inmarsat status beyond of repairs – total new inmarsat system will be installed – estimated time of repair unknown.

DCS MF transmitter not working – under investigation – estimated time of repair unknown.

6. Contingency Planning

New VHF/UHF radiotelephony network installed on Leeward Caribbean islands.

New VHF/UHF radiotelephony network planned on Windward Caribbean islands.

7. Capacity Building

-

8. Other Activities

-

9. National Maritime Website

-

10. Recommendations

-

11. Summary

JRCC Curacao

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