National Report Suriname 2023

24th MESO-AMERICAN – CARIBBEAN SEA HYDROGRAPHIC COMMISSION MEETING

12 - 15 December 2023

Maritime Authority Suriname

November 16, 2023

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1. Hydrographic Office/Service

Maritime Authority Suriname aims for the following:

- A safe and efficient transfer securing sea-going vessel to and from Suriname in regards with international norms and rules accepted and in conformity with the treaties established by Suriname.
- Supervision of the compliance of legal requirements for shipping and maritime traffic.
- To be a recognized authority in both the national and international maritime field.
- Further professionalizing of the implementation of duties and making of proposals for the modernizing of the legislation.
- To undergo a culture change, which is focused on productivity and a professional working attitude.

Vision:

TO BE A PROFESSIONAL, COMMERCIAL ORIENTED, INNOVATIVE AND LEADING ORGANIZATION.
INITIATING AND FACILITATING MARITIME DEVELOPMENT

Mission Statement:
“ASSURING SAFE, SECURE, ENVIRONMENTALLY SOUND, EFFICIENT AND SUSTAINABLE SHIPPING”.

2. Surveys

- Coverage of new surveys:
  - No surveys of new areas.
  - Monitoring of the Suriname River from the entrance to Dijkveld.
  - ISPS harbour facilities: fifteen (15) were surveyed and one (1) harbour facility was dredged in 2023 to be in line with the main river channel and for the update of their respective Shipping Notice and ENC band 6.

- New technologies and / or equipment:
  - Annual Fugro Marinestar DGPS subscription.
  - Second Sound Velocity Profiler
  - Portable Dual Frequency Single Beam Echosounder (Ceescope) for the survey of remote areas
  - Dual Frequency Single Beam Echosounder (ODOM) for survey vessel Pasisi.

- New ships: none

- Crowdsourced and satellite-derived bathymetry - national policy:
  - All data collected in the offshore area are referenced at Mean Sea Level.
  - All data collected in the nearshore area are referenced at Low Water Spring.

- Inland surveys are exclusively conducted by MAS and are referenced at Low Water Spring.
- No national policy established yet for satellite-derived bathymetry.

- Challenges and achievements:
  - Achievement: Closure of Phase 2 SRDP (Suriname River Dredging Project). As per July 15, 2023, the minimum depth of 5.5 m Chart Datum is guaranteed from the entrance of the Suriname River up to Paranam in the navigation channel.

    With an average tidal rise of 2.8m at spring tide a water level of 8.3m is available.
    With an average tidal rise of 2.15m at neap tide a water level of 7.65 m is available.
    The minimum underkeel clearance used is 0.30 m or 0.40m depending on the tide.
    The navigation channel will be maintained at 5.75m Chart datum, to guarantee safe passage of ships using the nautical depth of 5.5m at chart datum.

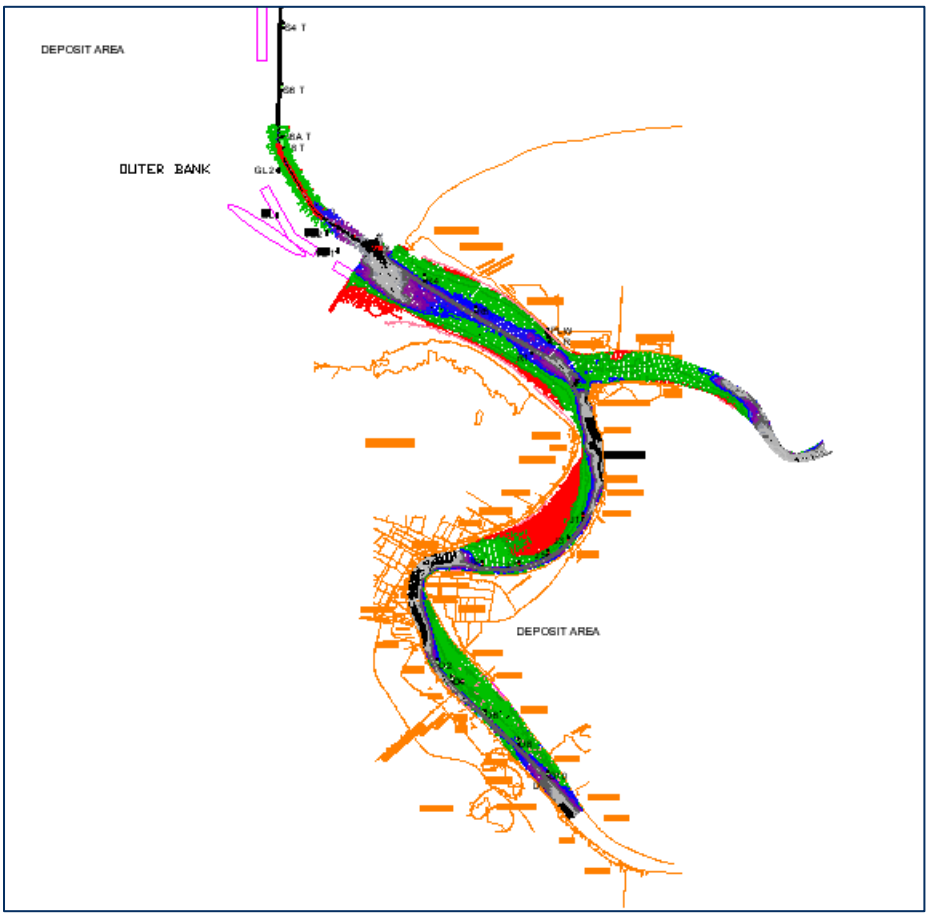
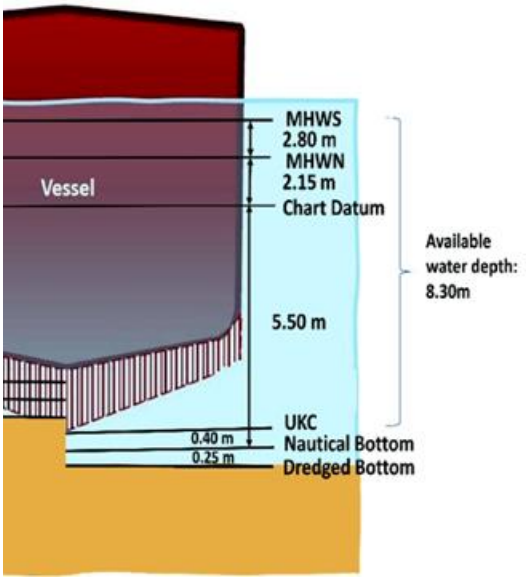


Figure 1: Phase II Suriname River Dredging Project –Minimum depth of 5.5 m LWS from the entrance up to Paranam.



Mean Draft Calculation

WATER LEVEL: MEAN RIZE BY SPRING- AND NEAPTIDE

Mean rise at springtide: 2.80 meters
Mean rise at neap tide: 2.15 meters
Bar depth in the River Mouth: 5.5 meters.

Spring to Neap tide	:	2.80 m.
Bar depth	:	5.50 m.
Total	:	8.30 m.
Keel clearance	:	0.40 m.
Ship's draft to depart	:	**7.90 m.**

At mean spring tide (2.80 m.) ship can safely load to ± 7.90 m.

Neap tide to springtide	:	**2.15 m.**
Bar depth	:	**5.50 m.**
Total	:	**7.65 m.**
Keel clearance	:	**0.30 m.**
Ship's draft to depart	:	**7.35 m.**

At mean neap tide (2.15 m.) ship can safely load to ± 7.35 m.

Note: The calculations above are based on mean values. The actual tide can be lower or higher than the mean values. The day-to-day tidal information is published in the annual tide tables of the Maritime Authority of Suriname. The calculation is based on freshwater density (1.0 kg/l).

- Challenge: transition to S-100 standards which was initiated in 2021 and is still on going. The challenge for us is to transform our current procedures and forms to the new standards. A plan of action is being drafted, along with a list of needs and gap analysis for all S-100 products.
  The challenges are at different levels:
  - Guidance is required for implementation on governance and institutional level, policy and legal, standards.
  - Require partnerships and capacity building to improve technical skills, structures.

3. New charts & updates:

- ENCs, INT and paper charts:

- Planning Paper Charts and ENC's

ENC and Chart	Year	Publication	Producer	Status
Paper Chart SR2218/GB2765	2024	Update	Suriname/ UKHO	New data available. chart limits amended, Ongoing
ENC SR402218, SR52218A, and SR52218B	2024	Update	UKHO	New data available. Ongoing
Paper Chart 2763 ENC 2763	2024	New edition	Suriname/ UKHO	Chart limits amended. Ongoing.

Paper Chart 2766	2024	Update	UKHO	New data required
ENC SR402766, SR5C2766, SR5D2766	2024	Update	UKHO	New data required
ENC ISPS ports	September 2019 - 2024	New edition and updates	Suriname	Ongoing.

- New Charts & updates

	ISPS Ports	IMO Nummer	ENC	Frequency update ENC
1	N.V. MEELMAATSCHAPPIJ DE MOLEN	SRPBM-0002	SR6001SR	Yearly
2	LA VIGILANTIA PORT FACILITY	SRSMA-0001	SR6002SR	Yearly
3	TRAYMORE N.V. DOCK 2	SRMOJ-0003	SR60304SR	Yearly
4	TRAYMORE N.V.	SRMOJ-0001	SR60304SR	Yearly
5	HAVEN VAN Nw. NICKERIE	SRICK-0002	SR6005SR	Yearly
6	NIEUWE HAVENTERMINAL	SRPBM-0001	SR6006SR	Yearly
7	OLIESTEIGER	SRPBM-0003	SR6007SR	Yearly
8	SUHOZA WHITE OIL BULK STORAGE FACILITY	SRPBM-0004	SR6008SR	Yearly
9	VENSUR N.V.	SRPBM-0006	SR6009SR	every 6 months
10	STAATSOLIE MIJ. SUR. N.V.	SRPBM-0005	SR6010SR	quarterly

11	Alumina Dock/ Paranam Port	SRPRM-0001	SR610123	Yearly
12	General Dock	SRPRM-0002	SR610123	Yearly
13	LPG Dock	SRPRM-0003	SR610123	Yearly
14	RUDISA HOLDING MAATSCHAPPIJ	SRSMA-0002	SR6014SR	Yearly
15	VABI Jetty	SRPBM-0024	SR61516SR	every 6 months
16	KULDIPSINGH PORT FACILITY N.V.	SRPBM-0026	SR61516SR	every 6 months
17	RUBIS	SRPBM-0027	SR6018SR	Yearly

ENC and Chart	Year	Publication	Producer	Status
ENC ISPS ports band 6	2020-2024	New editions	Suriname	Ongoing
ENC for PPU	2024	Update	Suriname	Ongoing

- Rescheme plan of the Surinamese waters 2022- 2024:
    - Planned Chart Scheme of the Suriname River- Band 5

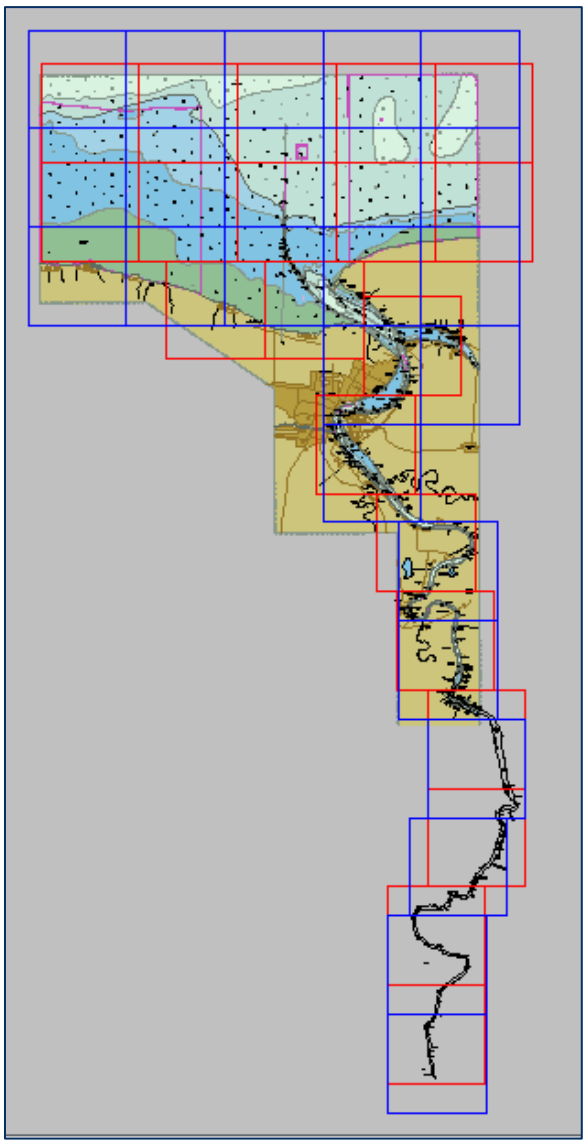


Figure 2: Rescheme plan of the Suriname River

- Planned New edition coastal chart with revised chart limits Usage Band 2

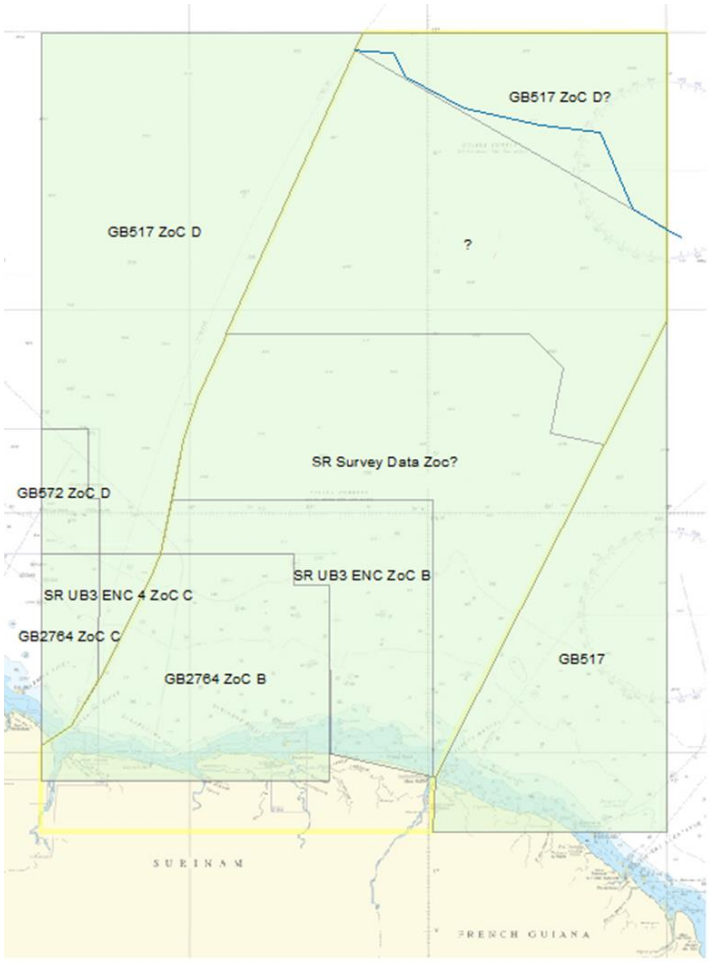


Figure 3: New edition with revised chart limits Usage Band 2

- ENC Distribution method: through IC-ENC and UKHO

4. New publications & updates:

- New Publications: Tide Table 2024 for Suriname. Tide tables are released each year.
- Updated publications: Shipping Notices for the nautical accessibility of ISPS certified ports and rivers are updated after detailed surveys of the ports. Port Information of Suriname will be updated on the World Port Index website and IMO GISIS website.

5. MSI

- Existing infrastructure for transmission:
  Partial radio warnings for coastal area through Vessel Traffic Control (VTC).
  NtM published in local papers and website, emailed to mariners.
  NtM submitted to the NAVAREA coordinator.
  No GMDSS system in place.

- Statistics on work of the National Coordinator: This year, a total of 12 MSI have been submitted to the NAVAREA Coordinator and a total of 89 NtM has been published locally.

MODU	3
SCIENTIFIC SURVEYS	9
TOTAL	12

- New infrastructure in accordance with GMDSS Master Plan:

Currently a GMDSS Master Plan is still in concept. The organization responsible for the GMDSS is the Coast Guard of Suriname (established in 2019), Search and Rescue obligation are partially covered. The Coast Guard of Suriname work in collaboration with Search and Rescue force of the region. MAS is assisting the Coast Guard of Suriname in developing a Master Plan for the national GMDSS. The Master Plan is still in draft.
The national partners for implementation GMDSS were identified, the collaboration between parties will be documented and executed conform the MOU GMDSS. The next step is to seek support from IMO with regards to GMDSS expertise to update and execute the Master Plan.

- Challenge: GMDSS expertise and equipment for the development of GMDSS.

The challenges are at different levels:

  - Technical Guidance is requested for implementation.
  - Require capacity building to improve technical skills.

6. C-55

See Annex B

7. Capacity Building Offer of and/or demand for Capacity Building

- Training delivered:

The Suriname Aton Academy in partnership with IALA has provided the Training International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Level I Manager Course was held from October 14th – November 6th, 2023, which were attended by participants from Barbados, Brazil, China, Trinidad, Liberia, Saudi- Arabia, Gambia, Singapore and Suriname.

- Training offered:
    - The Suriname Aton Academy in partnership with IALA will provide:
        - The IALA Aids to Navigation Procurement Course in February 2024
        - The IALA Aids to Navigation L2 Technician Course in 2024. The date for this course has yet to be determined.

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- Training received:
  - IC-ENC Technical Conference Seminar Sessions 2023 & Microsoft Teams Meeting.
  - Introduction to S-100 June 2023.
  - ESRI seminar June 2023.
  - SevenCs seminar June 2023.
  - IC-ENC Steering Committee 24 July 2023.
  - ESRI MOOC Trainings and User Conferences.
  - UKHO S-57 to S-101 conversions course September 2023 webinar.
  - IC-ENC Production Support Working group meetings.
  - 3rd JCBP/IHO-Nippon Foundation CHART Project/IHO-Nippon Foundation GEOMAC.
  - Project Alumni Seminar October 2023.
  - Dredging Training provided by Boskalis Academy.

- National workshops attended:
  - Early Engagement – Awareness Raising and Training for Climate Resilient Infrastructure in Suriname.
  - Workshop Implementation of the Strategic Action Programme in context of the Amazon Cooperation of ACTO Member Countries
  - Workshop stakeholders' involvement for the set up and maintenance of a Geospatial Intelligence Hub.

- Training needed:
  - Demand for Capacity Building:
    - Hydrography cat. B
  - Required Internship:
    - Tidal analysis: for the determination of LAT and tidal modelling.
    - Side Scan Sonar image interpretation

- Status of national projects:
  - MoU with Anton de Kom University Suriname in progress
  - North Brazil Shelf Large Marine Ecosystem (NBS LME) Mangroves (GEF IW-6) project: "Setting the foundations for zero net loss of the mangroves that underpin human wellbeing in the North Brazil Shelf Large Marine Ecosystem" The main aim of the is to help establish a shared and multi-national process for Integrated Coastal Zone Management in the NBS.
  - Project 'Promoting Integrated and Participatory Ocean Governance' in Guyana and Suriname: The Eastern Gate to the Caribbean" is a four-year project funded by the EU covering the coastal and marine areas of Suriname and Guyana. The project aims to significantly enhance the governance and protection of marine and coastal resources of Guyana and Suriname through collaborative processes with all ocean stakeholders, improve knowledge of the coastal and marine environment, enhanced capacity of key stakeholders and informed marine spatial management.

- Status of bilateral projects: continuation of established MoU with the various organizations.
    - MoU DNH finalized.
    - MoU IC-ENC finalized.
    - MoU UKHO finalized.
    - MoU SHOM finalized.
    - MoU Universiteit Utrecht – Faculteit Geowetenschappen, Nederland (UU-GEO) in process with objectives:
        1. Guarantee the safe and efficient passage of sea-going vessels to and from Suriname based on internationally accepted standards and rules and in accordance with the conventions ratified by Suriname.
        2. Pursue a proactive policy and innovation in the maritime sector and incorporate them in the strategic plan through cooperation. Plays an increasingly important role nationally and internationally and is of great importance for the economy of Suriname. Developments in the world are constantly making higher demands on safe, secure, and environmentally friendly waterways and shipping.
        3. Contribution to the Social, Social and Economic developments of Suriname through projects, scientific research, technological developments, training and education.

8. Oceanographic activities

- General: due to the developments of the offshore and nearshore oil industries, seismic surveys and other surveys are being conducted by third parties. A seismic survey has been conducted in the black outlined area in figure 2 below.

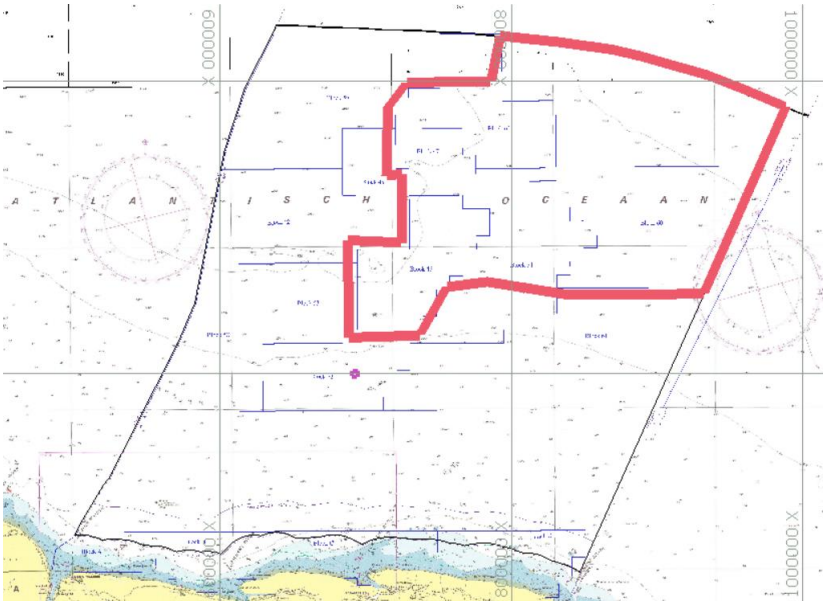


Figure 4: Seismic survey in 2023 in red outlined area being conducted by third party in regards of offshore oil industry.

- GEBCO/IBC's activities, GEBCO Seabed 2030 activities:
  Developments with regards to Seabed 2030:
  - Bathymetric data of maritime area of Suriname up to the continental shelf received form Regulatory Agency of Oil and Gas. Approval was granted and the data was made available in the first quarter of 2023.
  - MAS Web portal for bathymetric data sharing is still in construction.

- Tide gauge network: A tide gauge station near the entrance of the Suriname River has been established since April 2018 and is currently gathering water level information every ten minutes. The tide gauge station is located on the leading light GL2.

- New equipment: none.

- Challenges and achievements: none.

9 Spatial data infrastructure

- Status of MSDI:
  - Hydrographic layers are in place and maintained and updated regularly. These layers include wrecks, Aids to Navigation, information regarding ISPS Ports and other jetties, tide stations and STS locations. These layers are the responsibility of MAS.

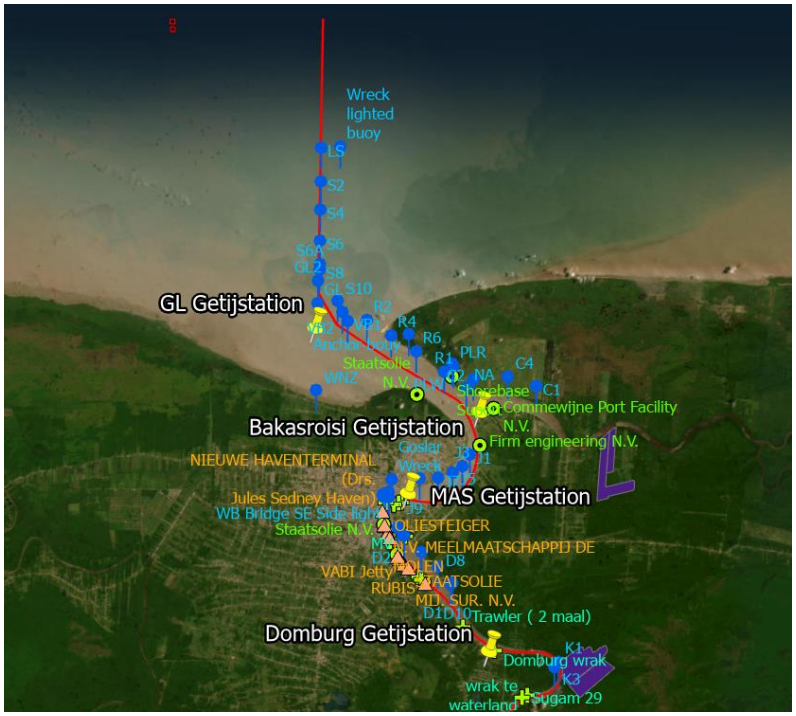


Figure 5: Hydrographic layers of wrecks, Aids to Navigation, ISPS Ports, tide stations and STS locations.

- Status of MSDI (continued):
    - Currently, public management institutions related to water are fragmented and have shared responsibilities both from one administrative level to another (central, regional) and between institutions at a level of government and therefor maritime data is scattered throughout various organizations and institutions.
    - Collaboration with Green Heritage Fund, WWF continues, and Foundation for Forest Management and Production Control (SBB) and various stakeholders resulted in a National Land Monitoring System of Suriname. Info / layers of the 3D model of the Surinamese coast will be placed on the Gonini web portal at https://www.gonini.org/.

- Relationship with the NSDI: The Management Institute for Land Registration and Land Information System, abbreviated as MI-GLIS is by the Surinamese Law the institution for developing and maintaining of NSDI, which is still under development.

- Involvement in regional or global MSDI efforts: A workshop “Implementation of the Strategic Action Program (SAP) in the Context of the Amazon Partnerships of ACT Member States” was held by the Ministry of Spatial Planning and Environment (ROM). The focus was to encourage regional cooperation between the Amazon Cooperation Treaty Organization (ACTO) and national stakeholders for building an institutional and technical framework for integrated water management in the Amazon.

- National implementation of the Shared Data Principles – including any national data policy and impact on marine data:
    - the Management Institute for Land Registration and Land Information System, abbreviated as MI-GLIS is by the Surinamese Law the institution for developing and maintaining of NSDI, which is still under development.
    - The Ministry of Spatial Planning and Environment (ROM) fulfills a leading role and has held a workshop in October 2023 for the setup of a Geospatial Intelligence Hub for Suriname.
    - MSDI national portal: partly established via Gonini webportal https://www.gonini.org/.

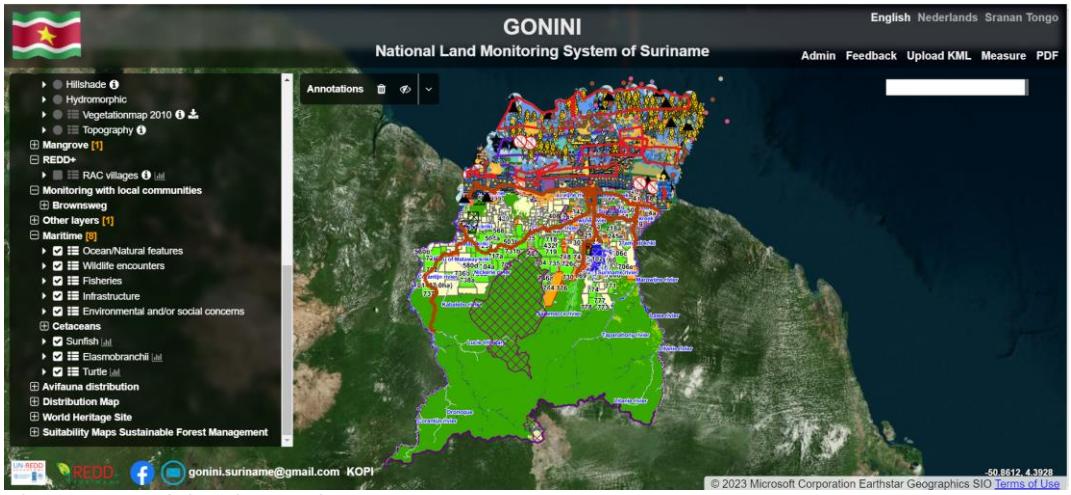


Figure 6: Gonini.web portal

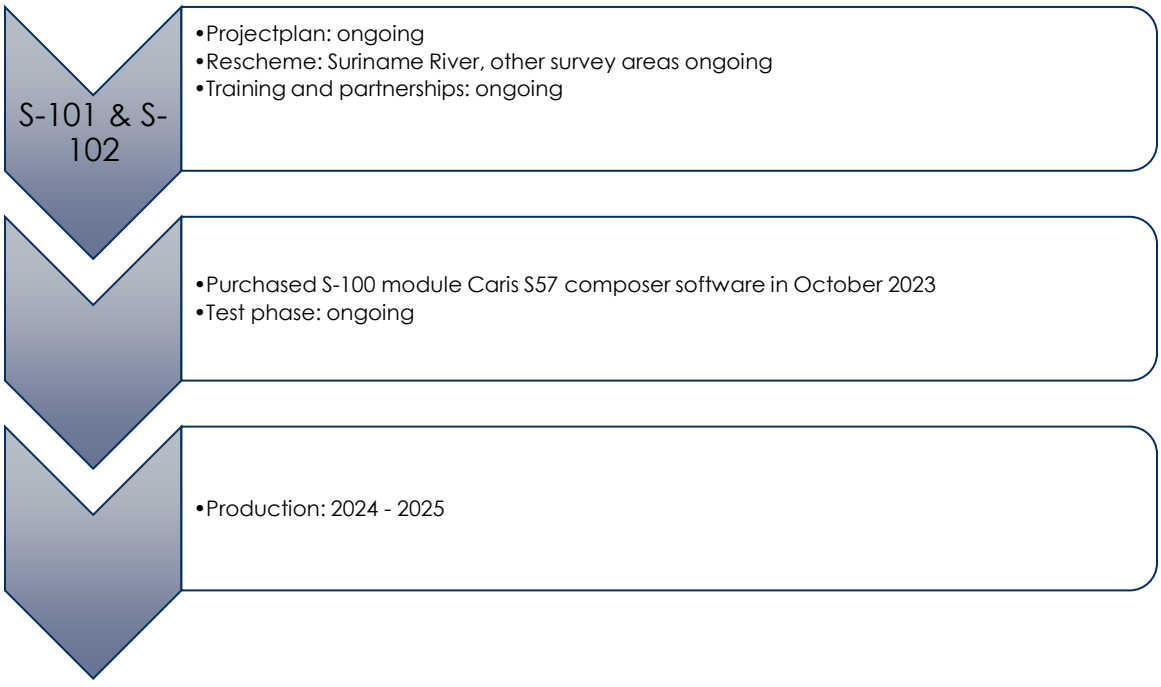
10. Innovation

- Use of new technologies: ArcGIS Pro
- Risk assessment: none
- Policy matters: needs to be assessed

.11. Other activities

- Transition to S-100 products timeline 2022 - 2025:

The Transition from S-57 production to S-100 is now ongoing. Suriname River has been reschemed in accordance and other survey areas are ongoing. An S-100 module Caris S57 Composer software was purchased in October 2023 and the test phase for the conversion and implementation to S-100 products will begin in 2024. The aim is to produce S-100 products between 2024-2025.



- Maritime Open Days: MAS has organized two maritime open days in collaboration with several companies within the maritime sector on 3 and 4 November 2023. During these days, visitors were informed about the role within the maritime sector and the emerging Oil and Gas industry. The Maritime Open Days were also held to commemorate various themed maritime days:
    - World Maritime Day (September 28th)
    - World Hydrography Day (June 5th)
    - Day of the Seafarer (June 25th)
    - International Day for Women in Maritime (May 18th)
    - World Marine AtoN Day (July 1st)

Collage of Maritime Open Days at MAS on 3 and 4 November 2023

12. Conclusions

Overall, a good year, some challenges with regards to S100. Improvements on Spatial Data Infrastructure on national level through government engagement and public-private sector.