

Ministério dos Transportes e comunicações

NATIONAL REPORT FROM MOZAMBIQUE TO THE 18th MEETING OF SOUTHERN AFRICA AND ISLANDS HYDROGRAPHIC COMMISSION



Presentation structure

- ▶ Introduction
- ▶ Hydrographic office
- ▶ Cartography
- ▶ Marine Aids to Navigation
- ▶ Oceanographic
- ▶ Acquisition and Maintenance of Equipment
- ▶ Bilateral partnerships

Introduction

- ▶ With this report it is intended to give a general summary of the main activities carried out by the Mozambican Hydrographic Office (MHO). The report covers all the activities carried out from March 2021, to April, 2022.

The Hydrographic office

The main role of the Mozambican Hydrographic Office (MHO) is to ensure safety of navigation along the Mozambican waters, through provision of the:

Hydrographic surveys within the Mozambican Waters,

- Nautical Charts;
- Aids to Navigation, and
- Other nautical documents and information that include Tide Tables and Currents.

Hydrographic activities in Mozambique are carried out at the:

- Three main ports, namely Maputo, Beira, and Nacala;
- Eight secondary Ports, namely, Inhambane, Chinde, Macuse, Quelimane, Angoche, Pemba, Mocimboa da Praia, and Palma.
- And in some rivers and lakes such as Zambezi and Limpopo Rivers, Lake Niassa and Bilene Lagon.

Surveys

- ▶ Hydrographic surveys are mainly conducted with the purpose of producing new charts, updating the existing charts, and ascertain the viability of navigating along the rivers, lakes and lagoons.
- ▶ So far, Mozambique produces paper charts, based on bathymetric data collected with resort to both single and multibeam echo-sounder systems.

Planned surveys

- ▶ Mozambique has planned to carry out in the report period, hydrographic surveys in the following areas, and with the following purposes:
- ▶ 1.1 Quelimane access channel and Port, to assist in the delimitation of the navigation channel and updated the nautical chart.
- ▶ 1.2 Metangula and Cobué areas, in Lake Niassa, to assist the government on taking informed decision while designing multimodal transport system in North of Mozambique.
- ▶ 1.3 Hydrographic surveying in Zumbo should be conducted for revitalizing the local cabotage transport in the Zambezi River. However, this activity was not undertaken as the local bridge previously planned for building has been not finalized.

Surveys Carried out in the Report Period

In the report period was carried out, field visits and hydrographic surveys aiming at updating the nautical charts and ascertaining the viability of navigation on the lake Niassa. Following are listed the activities, purposes and the sites where Hydrographic surveys were carried out:

1.4 Hydrographic survey at Quelimane Port and access channel to produce new INT7641 chart (see bathymetric map in the figure 1);

1.5 Hydrographic survey at Metangula lake to produce new national chart (see bathymetric map in the figure 2);

1.6 Hydrographic survey at Maputo Bay – in the Macaneta area to update the Maputo Approaches to the Port INT7583 chart, and Maputo Bay, INT7581 chart

1.7 Hydrographic Survey at the Nacala Port to production of the INT7662 chart of Nacala Port.

Bathymetric maps

Figure 1: Bathymetric maps (Pranchetas) corresponding to Quelimane access channel and Porto. Hydrographic survey were carried out in August, 2021

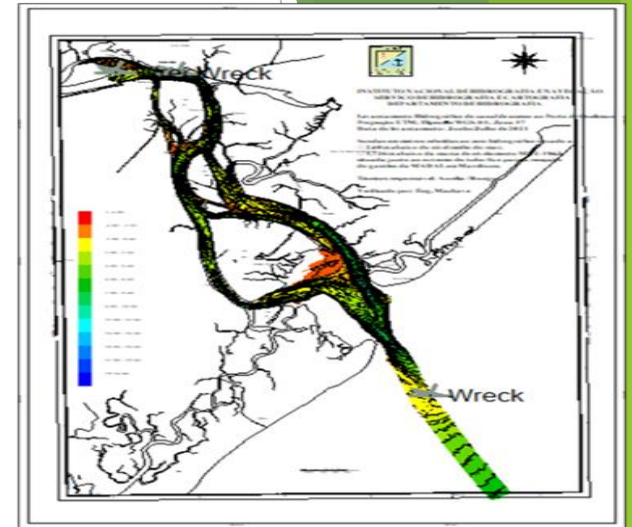
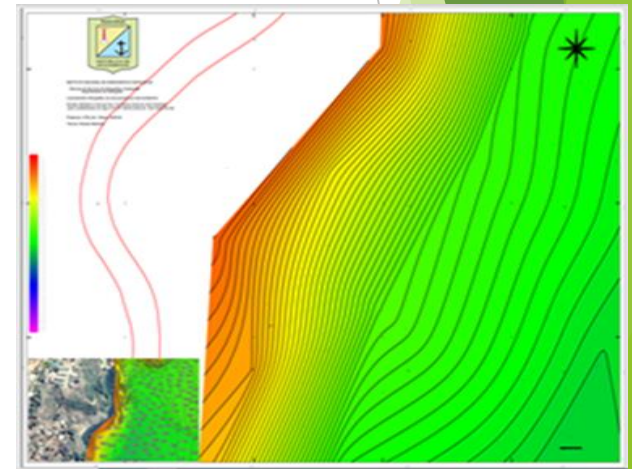


Figure 2: Bathymetric maps (Pranchetas) corresponding to Metangula- Lago Niassa. Hydrographic survey was carried out in January, 2021



Cartography

Mozambique has consolidated the production of both, national and INT paper nautical charts. Currently, the production and updating of charts are done with less constraints.

The Mozambican catalogue of nautical charts consist of coastal charts – in scale of 1:300.000; approximation charts in scale of 1:30.000 and port charts in scales varying from 1: 15.000 to 1:20.000.

Planned of Chart Production

- ▶ National charts
- ▶ With regard to the national paper charts, Mozambique planned the production of:
 - ▶ The 16203MZ – Baía de Inhambane Chart.
 - ▶ The 26302 – Baía de Metangula- Lago Niassa
- ▶ INT Charts
 - ▶ Regarding the INT charts, during the report period, Mozambique has planned the updating of:
 - ▶ INT7631 – Beira Approaches
 - ▶ INT7641 – Quelimane Approaches
 - ▶ INT7583 – Maputo Approaches
 - ▶ INT7620 – Chart of Cabo São Sebastião á Beira

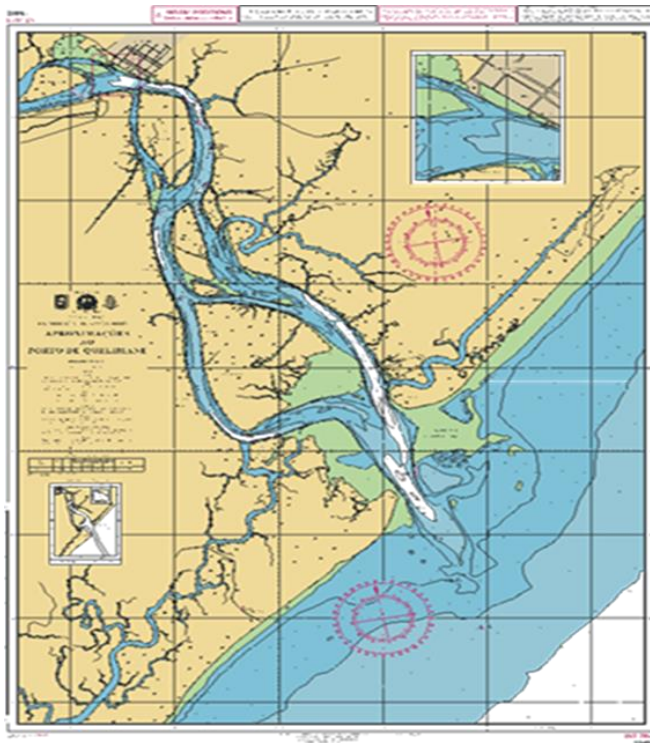
Cartographic Activities carried out in the Report Period

Following are listed the cartographic activities carried out on the INT and National paper charts:

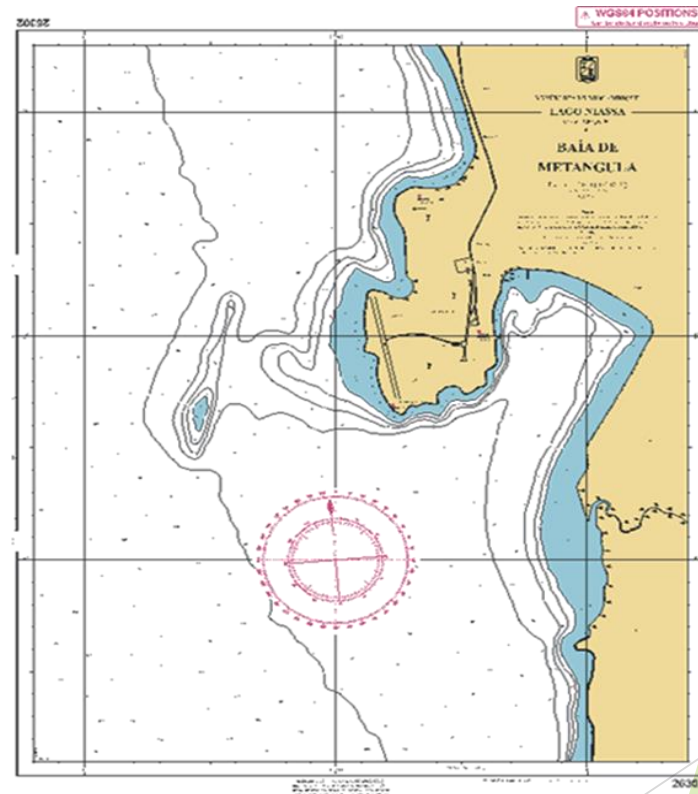
- 1.8 Conclusion of the update of the INT7631 – Aproximações ao Porto da Beira.
- 1.9 Conclusion of the update of the INT7641– Aproximações ao Porto de Quelimane (see figure 3).
- 1.10 Compilation phase of the updating of the INT7583 – Aproximações ao Porto de Maputo. It is in verification and correction phase
- 1.11 Compilation phase of the updating of the INT7620 – Cabo Sao Sebastião á Beira
- 1.12 Compilation phase of the production of the INT7581 – Baia de Maputo.
- 1.13 Compilation phase of the updating of the the 16203MZ – Baía de Inhambane Chart.
- 1.14 Conclusion of the update of the the 26302 – Baía de Metangula- Lago Niassa (see figure 4)

The updated Chart

Aproximação ao Porto de
Quelimane
16402MZ/INT7641-



Baía de Metangula 26302



In the table below is summarised the status of INT charts production or updating in Mozambique, as well as the expected date for conclusion of the activities.

INT Chart Nr.	INT Chart Name	Status	Year	Expected Date for conclusion
16204MZ/INT7631	Aprox. Porto da Beira	Updated	2021	
16402MZ/INT7641	Aprox. Porto de Quelimane	Updated	2022	
16401MZ/INT7583	Aprox. Porto de Maputo	Update in progress		May 2022
13204MZ/INT7620	Cabo S. Sebastião a Beira	Update in progress		July 2022

Table 1. Summary of INT Charts being updated.

ENC's

Mozambique is still endeavoring to create the needed capacity to start with the production of ENC's. To this goal, INAHINA in collaboration with IHPT, have discussed the possibility of IHPT to assist in training of the Mozambique staff on the ENC's production. Mozambique is also exploring the procedures to easy the acquisition of Licenses for the ENC production.

Charts for pleasure Craft

At this stage, there is nothing to report in this regard.

MSDI & GMDSS

- ▶ Marine Spatial Data Infrastructure – MSDI and the Global Maritime Distress Safety Information – GMDSS remain as subjects under the mandate of INAMAR, IP – The National Maritime Authority.
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Capacity Building

The Mozambique sees as a priority the enhancement/strengthen of capacity building actions in the Region as a whole.

In terms of needs in capacity building, the following has been identified as the Mozambique, short terms need in capacity building:

- Hydrographic on job training in multi beam echo sounder system;
- Hydrographic on job training in side scan sonar system;
- ENC on job training course;
- Paper chart refreshment training;
- Hydrography Cat B and Cat A training courses;
- Cartography Cat B and Cat A Training course;
- Training for promulgation and dissemination of Notice to mariners.

Marine Aids to Navigation

- ▶ The MTC mandate, includes also partial provision and promulgation of the aids to navigation. Other component of aids to navigation are provided and promulgated by INAMAR – The Mozambican National Institute for Sea.
- ▶ In general, the provision of aids to navigation under the responsibility of The National Hydrographic Services of Mozambique, comprises:
 - ▶ The delimitation of access channels to the Ports,
 - ▶ Construction and maintenance of lighthouses, and others structures to assist the mariners on getting into the Ports,
 - ▶ Promulgation of Notice to Marines/aids to navigation, through the sharing of relevant safety marine information with the NAVEAREA –VII coordinator.

Planned Activities on the Marine Aids to Navigation

Following are the planned activities, within report period,

- ▶ Conclusion of the modernization of aids to navigation system in the Port of Quelimane,
- ▶ Rehabilitation of the Vilhena lighthouse,
- ▶ Rehabilitation Fernão Veloso lighthouse,
- ▶ Rehabilitation, Monte Belo lighthouse
- ▶ Rehabilitation Ponta D'ouro lighthouse
- ▶ Continuous sharing of the Notice to Mariners with the NAVEAREA –VII

Other Activities carried out during the report period on the Marine Aids to Navigation

- ▶ During the report period the National Hydrographic Services' activities on aids to navigation has also included:
- ▶ Maintenance of maritime navigation aids systems near the ports of Inhambane, Beira, and Pemba;
- ▶ Improvement and/or replacement of optical equipment in the lines of the access channel to the port of Maputo;
- ▶ Acquisition of luminous reserve buoys for the ports of Inhambane, Beira and Nacala;
- ▶ Issue of several (in average 3 times a month), notice to marine to the NAVEAREA-VII.

Fernão Veloso Lighthouse



Oceanographic

- ▶ During the report period the prominent oceanographic activities can be summarized as the following:
- ▶ Assistance on Hydrographic Surveys
- ▶ Maintenance of Oceanographic Buoys
- ▶ Installation of a tide gauge at the Port of Inhambane (see figure 6)
- ▶ Production of Tide Table for the all ports of Mozambique
- ▶ Inspection and Maintenance of Tide Stations in the Ports of Maputo, Quelimane and Nacala.
- ▶ Mozambique has also produced the tide table for the following Mozambican Ports: Maputo, Inhambane, Beira, Chinde, Quelimane, Pebane, Angoche, Ilha de Mozambique, Nacala, Pemba, and Mocimboa da Praia .



Acquisition and Maintenance of the Equipment

During the report period, activities at the National Hydrographic Office of Mozambique, were related to acquisition and maintenance of equipment, consisted on:

- Maintenance of hydrographic equipment.
- Maintained buoy tender vessel Bazaruto,
- Maintenance of hydrographic boats (Licuari, Pinda II and Lago Niassa), and
- Maintenance of Lighthouses, namely, Lacerda in Maputo province, Monte Belo and Boa Paz in Gaza province, Zavora in Inhambane province and Vilhena in Zambezia province.

Hydrographic Boats



Lago Niassa and Pinda II

Bilateral partnerships

- ▶ The IHO Strategic Plan describes bilateral partnerships as one of IHO framework to meet the objective of ensuring global surveying coverage. In that line, during the report period, the National Hydrographic Office of Mozambique, has carried out several activities (mainly on updating and production of Nautical Charts) within the scope of the two bilateral protocols, namely, with the Portuguese Hydrographic Institute (IHPT) and the United Kingdom Hydrographic Service (UKHO), both covering fields of hydrography, cartography and related areas.

New ships

Beginning of the process of acquiring a beacon vessel .

Constraints

Difficulties to pay the maintenance plan for licenses for cartographic production and hydrographic surveys.

Participation in international forum
Nothing to report.

Remarks

The incorporation of National Hydrographic Services of Mozambique within the Oceanographic Institute of Mozambique

Mozambique is under a structuring transformation, to adequate the country to the global challenges. As such, under the Article 82, number 1 of the Law 07/2012 of 8 February along with the Decree 15/2019, Article 12, number 1 of 14 March, the Council of Ministers has decided to create the Oceanographic Institute of Mozambique, abbreviated as InOM, and incorporate into this Institute, the National Hydrographic Services. InOM has its headquarters in the city of Maputo. Within the Mozambican organic structure, InOM is under the minister who oversees the areas of the sea, inland waters and fisheries.

Ship (Bazaruto)

OBRIGADO!

