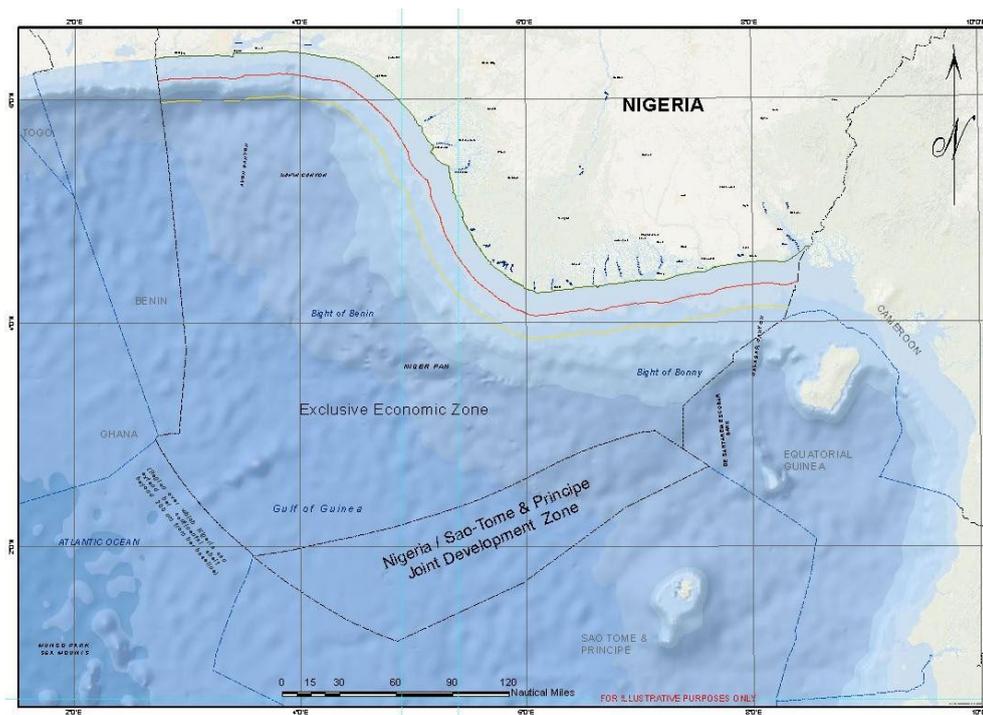




NIGERIA NATIONAL REPORT  
TO THE 16<sup>TH</sup> MEETING OF THE EASTERN ATLANTIC HYDROGRAPHIC  
COMMISSION



LISBON, PORTUGAL.

29 SEPTEMBER 1 OCTOBER 2021

## **INTRODUCTION**

1. Nigeria has continued to strive towards developing hydrography, nautical charting and safety of Navigation. In carrying out these responsibilities, the Nigerian Navy hydrographic Office (NNHO), which is the pivotal agency for hydrographic services in Nigeria, cooperates closely with other National agencies with related hydrographic survey responsibilities. These agencies include the Nigerian Maritime Administrator and Safety Agency (NIMASA), Nigerian Ports Authority (NPA) and the National Inland Waterways Authority (NIWA). The NNHO also works in partnership with other hydrographic offices such as the United Kingdom Hydrographic Office (UKHO) and the Service Hydrographique et Océanographique de la Marine (SHOM) in actualizing her objective of keeping Nigeria's maritime space safe for sea farers.

2. During the period under review, Nigeria made appreciable efforts in improving her hydrographic surveying and nautical charting capabilities. This report shall give a highlight of Nigeria's hydrographic surveying and nautical charting activities.

## **SURVEYS**

3. In the last 2 year, Nigeria has carried out several surveys in support of safety of navigation. The NPA in conjunction with its joint venture partners, the Lagos Channel Management and Bonny Channel Company has carried out periodic survey and maintenance dredging of the Lagos and Bonny channels. Four hydrographic surveys are carried out yearly in both channels to monitor the depth of the channels. NIMASA on the other hand has commenced the removal of over 14 wrecks identified along part of Badagry creek during the survey of the area. In the same vain, the NNHO carried out the survey of Badagry Creeks from Tincan Island to Navy Town and Lagos channel, in support of increased shipping activities in the area. Currently, the NNHO is surveying Ikorodu channel from Apapa to Ikorodu with a view to producing the chart coverage of the channel to improve safety of navigation along the channel. Before the end of the year, NNHO, in collaboration with NIWA will commence the survey of Lower Rivers Niger and Benue, in order to produce inland charts that will open up Nigeria's navigable inland waters for increased maritime activities. The NNHO has completed the scheming of Nigeria's waters for systematic survey and charting in the coming years.



Figure 1. Dredging and wreck removal in Lagos Channel.

### **NEW CHART PRODUCTION**

4. The NNHO has successfully utilized the various survey activities within Nigeria's waters to produce Nigeria's National and International charts. The office also provided information to the UKHO for update of British Admiralty charts covering areas where NNHO has no charts coverage. The new national and International charts produced by the office are NG4401, NG3306 and NG2501 as well as INT 2891. These charts, except NG3306 has both paper and electronic versions, which has been published by IC-ENC.

### **NIGERIA'S MARITIME SAFETY INFORMATION (MSI) FACILITY**

5. The Nigeria's Maritime Safety Information (MSI) facility at NNHO has continued to disseminate safety-related information to vessels within NAVAREA II, via a collaborative effort between NNHO and SHOM. Nigeria's NAVTEX stations are yet to come on stream, as NIMASA; the agency responsible for its construction is yet to complete the process. Until this is done, broadcast of coastal warning emanating from Nigerian waters will be done through SHOM. Notwithstanding, all bulletins of coastal warnings are available at the NNHO's portal at <https://www.nnho.ng/NavareaIIBulletin.php>.

## **PUBLICATIONS**

6. Annually, the NNHO publishes tidal prediction table for major ports and river entrances in Nigeria. During the last 2 years some of the tidal constituents were recalculated using more recent tidal observations. In addition, the office has published its own version of INT1 (Symbols and Abbreviation used on Nigeria Paper Chart) to guide mariners using its nautical charts and related products. The office has also produced a handbook on international Regulations for Preventing Collision at Sea, 1972 to improve safety of Navigation within Nigeria's waters.

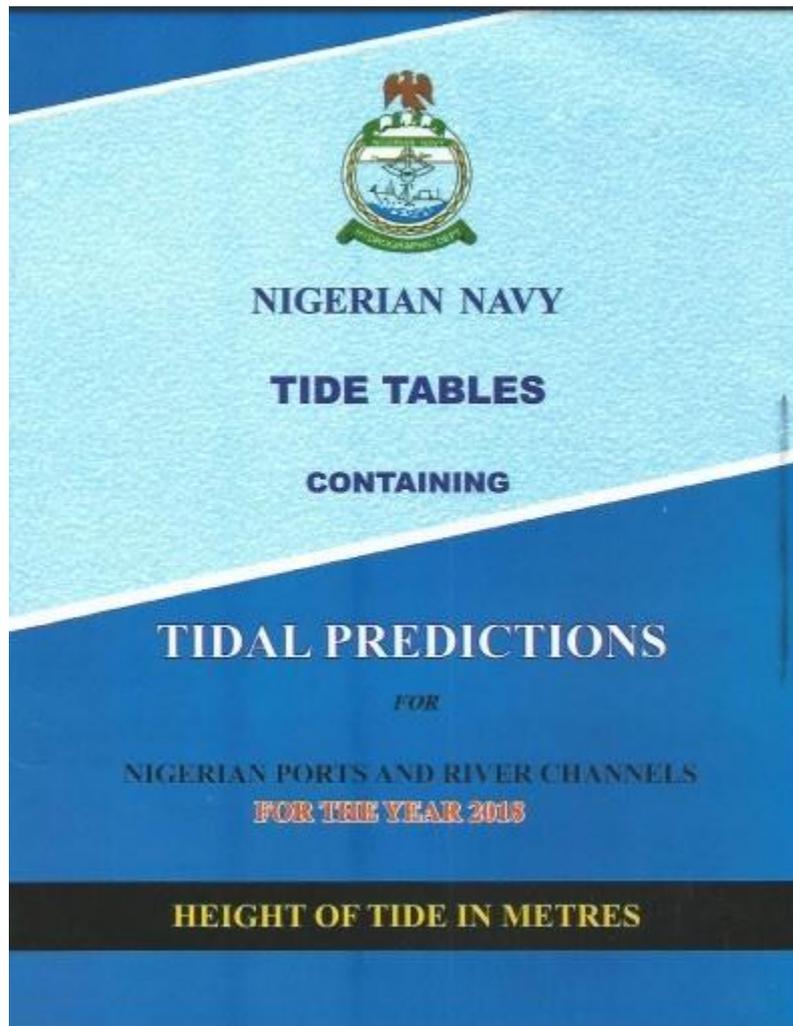


Figure 2. NNHO Tide Table.

7. As earlier stated, NNHO has commenced publication of both National and International charts. Within the last 2 years, the office has published 3 National and one International paper charts as well as 3 cells of ENC's, duly validated and distributed by IC-ENC. More charts will be produced by the Office in the coming years.

## **CAPACITY BUILDING**

8. **Training.** Nigerian Navy has been vigorously training its personnel in related field at relevant training institutions both locally and internationally. In this regards, the Nigerian Navy Hydrographic School, Port Harcourt has commenced training of officers in Basic Hydrographic Course, in addition to the Survey Recorder II and III courses offered to the Non – Commissioned Officers. Other training conducted during the period under review includes:

- a. Category B Hydrographic Courses in Bangladesh and India.
- b. Category A Hydrographic Courses in India.
- c. M.Sc. in Geodesy and Geoinformatics in Germany and M.Sc. in Hydrography and Oceanography in Italy.
- d. NIPPON Foundation – GEBCO Course in Ocean Mapping in University of New Hampshire.
- e. M.Sc. in Geomatics Engineering in Indonesia.

In spite of the progress made in hydrography training, Nigeria still lacks sufficient number of nautical cartographers to keep up the increased charting activities going on in the office. Within the period under review, NNHO did not get any training opportunity in cartography. Therefore, NNHO requests assistance both from IHO and other IHO member states to develop capacity in nautical cartography in the coming years.

9. **Acquisition of Survey Vessel.** The Nigerian Navy recently acquired a 60-meter offshore survey vessel christened NNS LANA, from the French Shipyard, Ocea. The OSV 190 class survey vessel, which is an integral part of hydrographic department will commence survey of Nigerian waters in September 2021. This brings to fore the needs to train more cartographers to meet up with charting activities of NNHO, which is envisaged to increase when LANA commences survey operations.



Figure 3. OSV 190 Class Survey Vessel, NNS LANA.

NNHO still has 3 Epenal E-27 Survey boats which she uses for survey of inland navigable waters and other creeks with little or no wave action.



Figure 4. Specially modified EPENAL E-27 Survey Boat

10. **Accreditation of IHO Category 'B' Course at The Nigerian Navy Hydrographic School.** After the failed attempt in 2019 to secure IBSC accreditation of CAT B Hydrographic Course at the Nigerian Navy Hydrographic School (NNHS), the school has embarked on massive infrastructural development and equipment acquisition to meet the recommendations of the Board. Whenever these efforts are completed, the school will once again approach IBSC for accreditation of its Category B course. It is pertinent to note that accreditation of Cat B course at the NNHS will present a unique opportunity, as it would provide a cheaper, qualitative and easily accessible training for hydrographic surveyors in Nigeria and the West African Sub region.

### **INTERNATIONAL COOPERATION**

11. In an effort to fulfil its mandate of providing improved hydrographic services to mariners within the Nigerian maritime environment, the NNHO cooperates with other hydrographic offices and some international organisations. Some of these organisations are the SHOM and UKHO. The cooperation with SHOM and UKHO provided the professional support for daily operation of the MSI portal at the NNHO. The NAVAREA II coordinator provide training as well as technical support that saw to the actualisation of the project. Similarly, the NNHO and NPA cooperates with the UKHO for the production and update of charts covering Nigeria's waters, where NNHO has no chart coverage. The NNHO is also working towards increased formal cooperation with the National Hydrographic Offices of Italy, USA and Portugal.

## **PARTICIPATION IN IHO WORKING GROUPS**

12. Despite the restriction imposed by Covid-19, Nigeria took part in several IHO committees and working groups. Some of these include:

- a. Crowd Source Bathymetry Working Group.
- b. Capacity Building Sub-committee.
- c. World-Wide Navigational Warning Service – Sub-Committee.

The NNHO also contributes to the GEBCO Cookbook publication.

## **STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING**

13. **Hydrographic Surveying**. The hydrographic surveying coverage where:

A = percentage which is adequately surveyed.

B = percentage which requires re-survey at larger scale or to modern standards.

C = percentage which has never been systematically surveyed.

	<b>A</b>	<b>B</b>	<b>C</b>
Depths < 200 m	25	65	10
Depths > 200 m	10	10	80

14. **Nautical Charting**. Status of nautical charting within the limits of the EEZ

A = percentage covered by INT series, or a paper chart series meeting the Standards in S-4.

B = percentage covered by Raster Navigational Charts (RNCs) meeting the standards in S-61.

C = percentage covered by ENC's meeting the standards in S-57.

<b>PURPOSE/SCALE</b>	<b>A</b>	<b>B</b>	<b>C</b>
Offshore Passages/ Small	100	100	100
Landfall and Coastal Passages/ Medium	100	100	100
Approaches and Ports/Large	100	100	60

15. **Maritime Safety Information.**

**Navigational Information (S-53)**

<b>Service</b>	<b>Yes</b>	<b>No</b>	<b>Partial</b>	<b>Notes</b>
Local Warning	X			Via NPA
Coastal Warning	X			Via NAVAREA II Coordinator
NAVAREA II Warnings	X			Via NAVAREA II Coordinator
Port Information	X			Via NPA

**GMDSS IMPLEMENTATION (IMO Publication 970-GMDSS Manual)**

<b>Service</b>	<b>Yes</b>	<b>No</b>	<b>Partial</b>	<b>Notes</b>
Master Plan	X			
Area A1		X		
Area A2		X		
Area A3		X		
NAVTEX		X		
SafetyNet		X		

**CONCLUSION**

16. Nigeria has made appreciable improvement in her survey and charting during the period under review. Maintenance surveys were carried out regularly in the Lagos and Bonny Channels with new paper and electronic charts produced by NNHO. Also various survey equipment and software have been acquired. Furthermore, a number of officers have been trained while others are currently undergoing various programmes in hydrography. Despite the progress made so far, Nigeria still lacks nautical cartographers, oceanographers and

database managers. With the induction of a new 60-metre survey vessel, more systematic survey activities will be undertaken by the NNHO in the coming years. This call for more Capacity Building efforts in nautical cartography to be able to translate the survey data expected from the new ship into nautical products that would further improve safety of Navigation within Nigeria's waters.

### **RECOMMENDATION**

17. The EAtHC is invited to:

- a. Note the report.
- b. Support Nigeria's efforts in survey and charting by offering more capacity building opportunities, especially in cartography to NNHO in this regard.