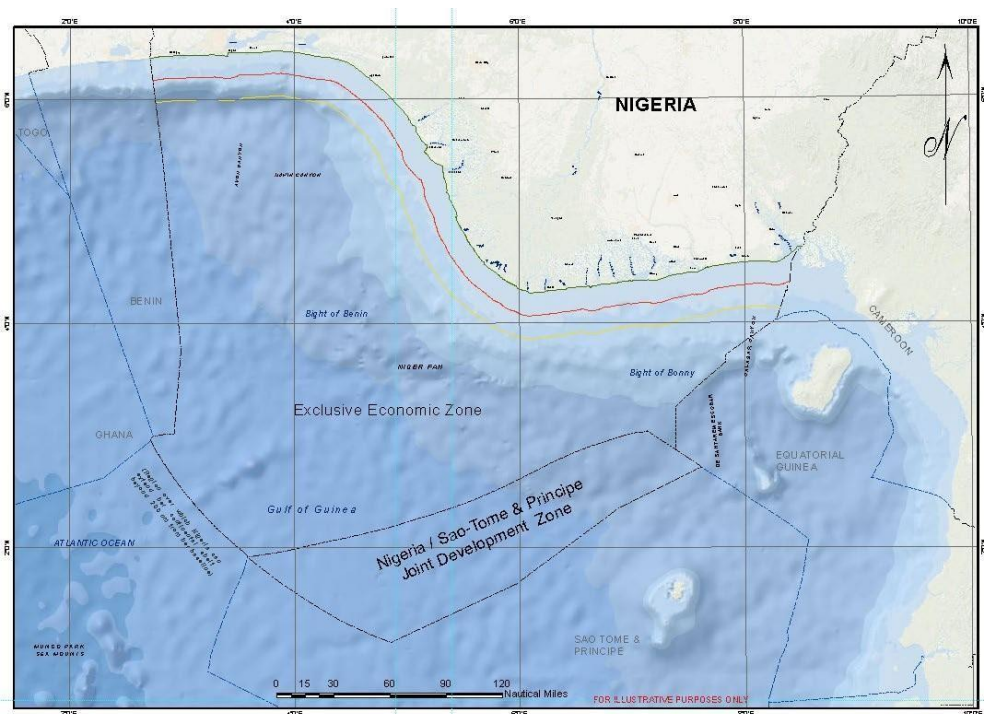




**NIGERIA NATIONAL REPORT
TO THE 17TH MEETING OF THE EASTERN ATLANTIC
HYDROGRAPHIC COMMISSION**



**MINDELO, CABO VERDE.
28 – 30 SEPTEMBER 2022**

BRIEF DESCRIPTION OF NIGERIAN NAVY HYDROGRAPHIC OFFICE

1. The Nigerian Navy Hydrographic Office (NNHO) superintends all national hydrographic survey and nautical chart production for Nigeria. It is organized into the administrative, operations and marketing units. While the administrative unit administers the personnel, the operations unit is responsible for survey and productions of nautical charts and publications for Nigeria. The marketing unit on the other hand ensures distribution of all products to the end users accordingly.

2. It is important to note that the Hydrographic Office, headed by the Hydrographer of the Nigerian Navy (NN) supervises the Hydrographic fleets and school accordingly. He exercises professional control of the Hydrographic school and the survey vessels for training of personnel and the conduct of surveys respectively. The principal functions of the department include, among others; Hydrographic/Oceanographic surveys, Charts productions, Tidal observations, production of Tidal prediction Tables for Nigerian Ports, coordination of all national hydrographic survey in Nigeria and dissemination of maritime safety to mariners operating within Nigeria's maritime domain and NAVAREA II Region.

RELATIONSHIP WITH INTERNATIONAL HYDROGRAPHIC OFFICE

3. Nigeria became a member of IHO on 31 May 1976, with the NN, represented by the NNHO designated as the focal agency. Since then, the NNHO has been working closely with IHO in all aspect relating development of hydrographic capacity in Nigeria and sub region. It is important to note that various engagements with IHO helped in no small way in building both human and material capacity in Hydrography, which recently resulted in Nigeria acquiring the competence to produce nautical charts and publications. At present, NN is working on an initiative to network IHO with African Development Bank Group (AFDB) to explore ways of leveraging the various developmental initiatives of the Bank to further develop hydrography in Africa.

RESPONSIBILITIES OF THE NIGERIAN NAVY HYDROGRAPHIC OFFICE

4. The NNHO derives its responsibilities from relevant regulations in Nigeria, which vest the responsibility of charting and coordination of all national hydrographic survey in Nigeria on the NN. Details of these responsibilities are as follows:

- a. Hydrographic and oceanographic surveying matters for national and defence requirements.
- b. Superintendence of hydrographic and oceanographic surveys in Nigerian

waters, including the Exclusive Economic Zone.

- c. Superintendence of all land surveying and dredging matters within the Nigerian Navy.
- d. Acting as the sole National Authority on hydrographic, charting and tidal matters.
- e. Evolving a national survey programme for Nigeria's coast, harbours and all approaches, in addition to particular defence requirements.
- f. The delineation/demarcation of maritime boundaries of Nigeria.
- g. Planning and coordination of appointments, training and career planning of personnel (Naval/Civilian) into hydrographic and oceanographic specializations.
- h. Supervision and provision of training facilities and equipment at the hydrographic school.
- j. Superintendence of the formulation and review of syllabus for various courses in hydrographic school.
- k. Planning and coordination of the acquisition of hydrographic and oceanographic vessels (ships/crafts/boats), including procurement of their equipment as well as replacement/modernization, accounting and repairs of such equipment.
- l. Publication and distribution of nautical charts and publications, including Nigerian Tide Tables.
- m. Provision, custody and distribution of navigational equipment and publications in the Nigerian Navy.
- n. Promulgation of Radio Navigational Warnings and Coordination, at national level, of Navigational Area Warning Systems.
- p. Meteorology in the Nigerian Navy.
- q. Liaison with other local and international mapping, hydrographic and oceanographic organizations for the purpose of maintaining local and international standards.
- r. To represent the Federal Government of Nigeria in international bodies and forums on hydrographic and oceanographic matters.
- s. Other duties allotted to the department by appropriate authority from time to time.

HYDROGRAPHY / CARTOGRAPHY / MARITIME SAFETY INFORMATION RESPONSIBILITIES

5. **Hydrographic Survey.** Nigeria has ramped up her hydrographic capabilities during the period under review. Several hydrographic surveys were carried out through individual and collaborative efforts among government and private hydrographic stakeholders. Through collaborative efforts with the NN and joint venture partners such as the Lagos Channel Management and Bonny Channel Company, Nigerian Ports Authority (NPA) has consistently and regularly conducted dredging and hydrographic surveys of all ports and harbour facilities. This has greatly aided shipping activities by ensuring free flow of vessels in and out of the ports and through the channels. Nigerian Maritime Administration and Safety Agency (NIMASA) has also benefitted from interagency collaboration as they have also carried out surveys including bottom profiling surveys which were done to better assess the existence of guyots and other forms of navigational hazards around the Lagos Harbour entrances and other inland waterways. Several wrecks and dangers to navigation have been detected as a result of these surveys which have prompted the Federal Government through NIMASA to execute the removal of over 14 wrecks along Badagry Creek and its environs.

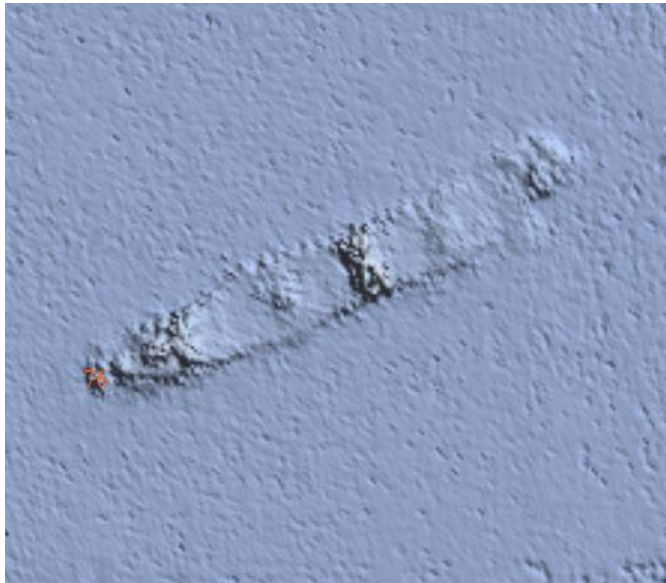
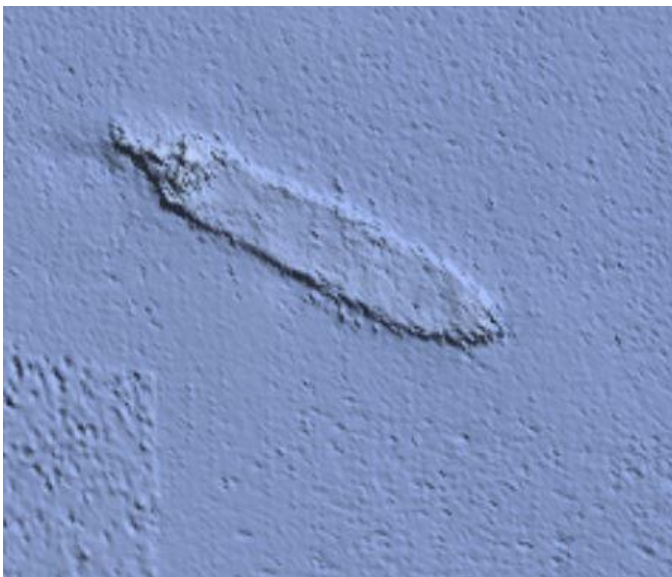
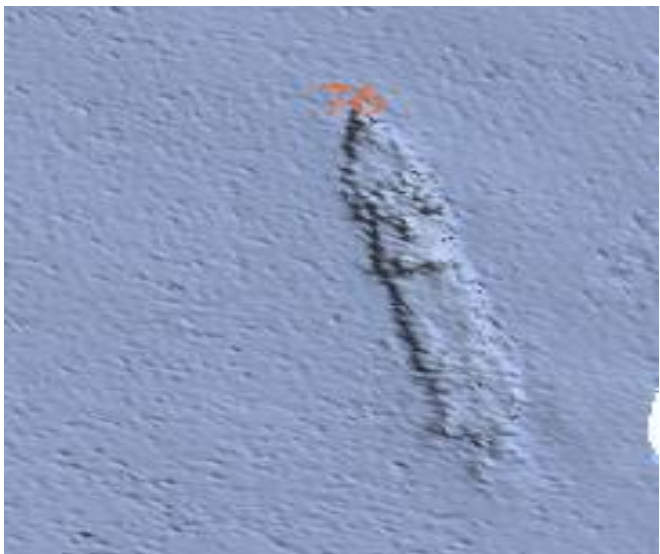
6. Additionally, the NNHO carried out the hydrographic survey of Lagos Lagoon from Apapa to Ikorodu to improve safety of navigation in support of ferry services, barge operations and other marine activities. The ultimate objective is to ensure complete chart coverage along the Lagos inland waterways, which will be utilized by mariners within the area. Also, the NNHO, in collaboration with (National Inland Water Ways Authority) NIWA commenced the survey of Lower Rivers Niger and Benue on 2 October 2021, with the Phase 1; Lokoja to Onitsha, of the survey and corresponding charts already completed. The survey of Phase 2; Onitsha to Burutu/Open Sea is currently ongoing. The survey is intended to open up that section of Nigeria's inland waters, which connects the North to the South of Nigeria, for improved maritime economic activities.

7. Furthermore, the newly acquired Ocean Survey Vessel (NNS LANA) began the systematic survey of Nigeria's coastal and offshore waters in January 2022. The ship commenced the survey with Approaches to Lagos and is already nearing completion with over 80 per cent of the approaches already surveyed. It is noteworthy to mention that several wrecks which were hitherto uncharted in the current British Admiralty chart covering this area have been discovered during the survey operations. The plan is that LANA will continue survey until all Nigeria's offshore areas are covered.



Figure 1. Dredging and wreck removal in Lagos Channel.

Selected Wrecks Discovered by NNS LANA.



8. **Cartography.** The acquisition of high-resolution hydrographic datasets through the numerous hydrographic survey operations conducted within the inland and offshore waters by the NNHO and her strategic partners have boosted the charting efforts of the Office. This has led to the production of more paper and electronic charts within the period under review. These include NG4402, Lagos Lagoon; Apapa to Ikorodu and NG4406 Dangote Refinery. Additionally, the ongoing survey of the Lower Niger River has resulted in the production of 5 paper charts spanning from Lokoja to Onitsha. These charts include NG4412, NG4413, NG4414, NG4415 and NG4416. The Office has also produced 5 additional cells of ENC's covering the aforementioned areas and has also provided information to the UKHO for update of British Admiralty charts covering areas where NNHO has no charts coverage.

9 **NIGERIA'S MARITIME SAFETY INFORMATION FACILITY.** 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 continue to be done through SHOM. Notwithstanding, all bulletins of coastal warnings are available at the NNHO's portal which can be accessed through the link, <https://www.nnho.ng/NavareaIIBulletin.php>.

RELATIONSHIP WITH OTHER RELEVANT NATIONAL ORGANIZATIONS

10. In an effort to fulfill its mandate of providing improved hydrographic services to mariners within the Nigerian maritime environment, the NNHO cooperates with other hydrographic offices and some international organizations. Some of these organizations 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 and production/update of charts. The NAVAREA II coordinator provides training as well as technical support that saw to the actualization of the project. Similarly, the NNHO and NPA cooperate 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.

COOPERATION / PROTOCOLS ESTABLISH WITH OTHER COUNTRIES WITHIN SAFETY OF NAVIGATION

11. The NNHO has established protocols with the United Kingdom Hydrographic

Office (UKHO) and IC-ENC in order to encourage cooperation in the areas of hydrography, marine geospatial information and other related disciplines, to avoid duplication of effort and to enhance maritime safety and support the protection of the marine environment. Accordingly, NNHO has signed MoUs with UKHO and IC-ENC in this regard. Additionally, discussions have reached advanced stage for NNHO to collaborate with NIPON Foundation/GEBCO Seabed 2030 project, with necessary approvals gotten for signing of MoU to guide such collaboration. Once a suitable venue is agreed by both parties, the MoU will be signed.

TOP ACHIEVEMENTS OF THE NNHO

12. In the period under review, NNHO has recorded some commendable achievements. These include establishment of a National Hydrographic Agency (NHA), conduct of survey operations and production of navigational charts, as well as construction of a 35m survey boats for NNHO. These achievements are discussed subsequently.

13. **Establishment of a National Hydrographic Agency.** NNHO's continued engagement with the political masters has led to the establishment in, February 2022, the National Hydrographic Agency (NHA) by the Nigeria Government. The Agency, which is an independent budget cost Agency, will operate as a national body, staffed with both civilians and naval personnel in a ratio 80:20. It will replace the NNHO in function, as it will carry out hydrographic and oceanographic surveys, including ocean meteorology for national defence and civil-related matters. Modalities and budget for its operationalization is being worked out and as soon as budget is approved, it will take off, with my humble self at the helm.

14. **Conduct of Survey Operations and Production of Navigational Charts.** The NNHO has conducted several surveys to meet both defence and civil requirements. Although the various survey operations engaged in by the NNHO has already been mentioned earlier, suffice it to state that NNHO additionally conducts re-survey of areas where it has chart coverage for the purpose of acquiring vital hydrographic information to update existing charts. To this end, NNHO has re-surveyed part of Badagry and Ikorodu Creeks, as well as Lagos Harbour between 2021 and 2022 for update of NG2501-Lagos Harbour Chart, NG4401 and NG4402, in line with international charting standard. Again, the NNHO has developed a National Charting Scheme (NSC) for charting of the entire Nigeria's maritime environment. This Scheme is guiding all the survey and charting efforts of the Office, as additional 9 paper charts and 5 cells of ENC's have been produced within the period under review. The Office also publishes tidal prediction table for major ports and river entrances in Nigeria in addition to other

nautical publications. Of particular interest is the publication of a maiden hydrographic magazine christened ‘The Gondola’. The magazine chronicled all the activities of NNS LANA, including their challenges and how they surmounted them. The idea is to use the magazine to educate many practitioners in Nigeria on survey practices, using systems organic to the Navy with our local environment for easy comprehension. We intend to continue with the publication and perhaps it could serve as our own local ‘Hydro International’ in future.



15. **Construction of 35m Survey Boat.** The engagement of the NN with the Nigerian Government has led to the award of contract for the construction of a 35m survey boat in France, which has reached advanced stage. All things being equal, the boat will join NN

flees in 2023. It is intended that the boat will compliment NNS LANA, by surveying the coastal approaches, while LANA engages in the survey within the deeper offshore waters. This would ensure more coverage of Nigeria's maritime space.

TOP ISSUES / CHALLENGES

16. The NNHO have some challenges, which includes, insufficient manpower development in the field of Hydrography and cartography, lack of accredited training institution and funding among others. The current manpower holding of the NNHO is not sufficient to meet the increased surveying and charting requirements of the Office. With the 35m survey boat due to be delivered in 2023, more human capacity needs to be developed in hydrographic surveying and cartography. While appreciating the training supports received from the IHO and other allied hydrographic offices, we still solicit for more training supports from the EAtHC, member states' Hydrographic Offices. Principally, the lack of adequate human capacity in hydrography and charting could be attributed to lack of accredited hydrographic training institution in Nigeria and within the region. If and when the NN Hydrographic School is accredited, it would address some of these training needs. Although the issue of poor funding for hydrographic development may not be within the purview of the EAtHC to address, however, I have to mention it as one of the topmost challenges that affected our developmental strides within the period under review. With the establishment of a NHA, with direct budget cost, I hope the effect of funding for hydrographic development in Nigeria would be reduced in the nearest future.

TOP PLANS THAT AFFECT THE REGION

17. The top plans that affect the region includes:
- a. Accreditation of NN Hydrographic School to aid hydrographic training in the sub-region.
 - b. Establishment of hybrid permanent automatic tide gauge to facilitate real time transmission of vertical (tide) and horizontal (position) datum corrections to vessels engaged in hydrographic survey within Nigeria waters.
 - c. In-house/local Cartographic training, which has started at NNHO. This would be developed for accreditation in future to address the cartographic manpower needs of the NNHO and ultimately other HOs within the region.

CONCLUSION

18. Nigeria has made appreciable strides in her hydrographic survey and charting

efforts during the period under review. Relevant hydrographic stakeholder, including NPA and NIMASA have conducted maintenance surveys and wreck removals respectively. The NNHO has also increased hydrographic survey capacity, leading to the production of additional paper and electronic navigational charts which have greatly aided maritime operations both within the inland waterways and offshore areas. The recent acquisition of NNS LANA and her subsequent deployment to conduct systematic survey of Nigeria's coastal and offshore waters is already yielding results with a number of new wrecks being discovered and updated on both Admiralty and Nigerian navigational charts. It is expected that the proposed addition of a 35m survey boat to the NN inventory will increase survey and charting operations of the NNHO in the coming years.

19. Despite the progress made so far, Nigeria still lacks adequate human capacity, especially in nautical cartography, oceanography and database management. This calls for more capacity building efforts in nautical these fields to be able to translate the survey data acquired from the various ongoing survey projects into nautical products that would further improve safety of Navigation within Nigeria's waters.

RECOMMENDATIONS

20. It is recommended that EAtHC should:

- a. Provide more supports to NNHO in areas such as Cartography, data acquisition, analysis, processing and management.
- b. Render more technical support to NNHO to facilitate the Accreditation of NNHS Programme.
- c. Render technical support to develop the in-house cartographic training being organized by NNHO to international standard.

ACTION REQUESTED FROM EATHC17

21. The EAtHC is invited to:

- a. Note the report.
- b. Support Nigeria's efforts in survey and charting by considering the recommendation in Paragraph 19.