



**BANGLADESH**  
**NATIONAL HYDROGRAPHIC REPORT**  
**FOR THE 8<sup>TH</sup> NIOHC MEETING**

**GOA, INDIA**  
**14 – 17 Apr 2008**

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## 1. HYDROGRAPHIC OFFICE

a. Bangladesh Navy (BN) hydrographic department was established in 1980. Since then BN has been conducting hydrographic surveys at sea and coastal belt areas of Bangladesh. With the aid of French Government, digital surveying system was introduced in BN in 1996. Simultaneously, with an aim to provide shore based supports to the survey units old Naval Chart Depot underwent substantial transformations, through enabling digital data handling capabilities and renamed as BN Hydrographic and Oceanographic Center (BNHOC). Bangladesh Inland Water Transport Authority (BIWTA), a government organization, conducts hydrographic surveys in our huge river system, which is playing a vital role to the national economy. They are mostly focusing on the inland water ways, used by the smaller cargo vessels and passenger liners.

b. Under the jurisdiction of Ministry of Defence (MOD), BN Hydrographic Directorate at Naval Headquarters deals with the hydrographic affairs of BN. To coordinate and regulate the Hydrographic activities of the country, a National Hydrographic Committee (NHC) has been formed chaired by a senior BN officer. BN is the key member (member secretary) call as well as the country. BN Hydrographic department has 24 officers specialized in hydrographic surveying (CAT A/ CAT B) and 190 sailors as survey recorders.

c. BN Hydrographic and Oceanographic Center (BNHOC) situated in the Naval Base Chittagong, acts as the nerve centre for the entire survey department. It provides technical and instrumental supports to the survey ships and responsible for the verification of field data, production and distribution of nautical charts, storage of data, tidal prediction and many other survey related activities. Along with service personnel, there are numbers of civilian staffs working in BNHOC. Besides BNHOC, there are 03 survey ships and crafts, 02 Survey Motor Boats and 01 training centre (BN Hydrographic School).

## 2. SURVEYS

a. **Coverage of New Surveys:** Check survey conducted in the anchorage area of Chittagong Port Authority (CPA). The data will be used for updating **INT 7428**. In addition, special drives have been taken to update the coastline data of critical areas of coastal belt including the surrounding area of the Hariabhangha River mouth.

b. **New Technologies or Equipment:** Hydrographic data acquisition software HYPACK® MAX 6.2a, Caris GIS 4.4a, and Caris HOM ENC S 57 version 3.3 have been introduced newly.

c. **New Ships:** Nil.

d. **Problems Encountered:**

(1) The Caris HOM ENC software could not be utilized effectively due to the limited knowledge and lack of expertise in ENC production. Training on ENC is very much required at this stage.

(2) Owing to complete dependency on overseas hydrographic institutions for Hydrographic CAT A courses it has become difficult to provide necessary training to the BN survey officers and ensure quality survey.

3. **NEW CHARTS & UPDATES**

a. **ENCs:** BN Hydrographic department feels the necessity of ENC project, however, the department could not yet formulate the ENC charting scheme as per the requirement of IHO.

b. **RNCs:** Nil.

c. **INT Charts:** A copy of INT chart 7428 have been forwarded to UKHO for necessary verification. The verification procedure is completed by now and the observations will be forwarded soon. Consequent steps will be initiated without delay for final publishing. Subsequently INT 7425 and 7426 will also be published.

d. **Problems Encountered.** South-western coast of Bangladesh is highly unstable due to the erosion and enormous silt deposition. Therefore, tremendous efforts are needed for keeping the INT Chart 7425 and 7426 reasonably updated.

4. **NEW PUBLICATIONS & UPDATES.** A tide table (paper) for local water has been published by BNHOC for the first time. The tide table has covered the shipping routes and both the port limits of the country. The areas included are, various parts of Karnaphuli River, Pussur River including Pussur River Entrance, St Martin's Island, Cox's bazaar, Kutubdia Island etc.

5. **MARITIME SAFETY INFORMATION (MSI).**

a. **Existing infrastructure for transmission:** Director General of Shipping and Principle Officer Mercantile Marine Department (POMMD) have already introduced a MSI system to all sea going vessels including warships.

b. **GMDSS:** DG Shipping, POMMD and both the port authorities of Chittagong and Mongla have taken necessary steps to introduce GMDSS equipments.

c. **Problems Encountered:** Nil.

6. **S-55 LATEST UPDATE** The S-55 database for Bangladeshi areas of responsibilities is updated by Bangladesh Navy Hydrographic Department on a yearly basis.
7. **CAPACITY BUILDING.** Following assistance in the field of Hydrography is highly solicited:
- a. **ENC:** Adequate training is required for BN personnel to develop ENC producing capability which will in turn fulfil the regional as well as global requirement of ENC production.
  - b. **Cat-A Course.** BNHD is facing tremendous problem to train BN officers as Class 1 surveyor (H1 or Charge Surveyor grade). Due to the absence of CAT A training in the country, BN is solely dependant on other competent countries to provide such training to the survey officers. Thus, maintaining the quality of survey has become difficult. At the same time, BN officers are also found reluctant to join the hydrographic services. Hence, the issue needs to be addressed with due importance. At present, India is kindly providing 01 course every year and UK has generously offered 01 course for this year. Future continuation of this support of UK and India is highly solicited for ensuring quality survey. Other countries can also extend their kind assistance to BN for surmounting this hurdle.
  - c. **Tsunami Warning System.** Under the close supervision of IOC, as a part of GLOSS programme of Indian Ocean Tsunami Warning System, a Tide Gauge at Chittagong has been upgraded to a Global Sea Level Observation Station of IOC. However Bangladesh Meteorological Department needs appropriate assistance to develop real time data retrieval capability from this station as well as other neighbouring stations along with processing tools and procedure so that it can independently assess the local affect of any incoming Tsunami well in time. This will be quite helpful for achieving maximum reaction time which is critical for the safety of our vast coastal population.
8. **OCEANOGRAPHIC ACTIVITIES.** A CLIVAR (Climatic Variation) cruise was conducted by Scripps Institution of Oceanography in the Bay of Bengal where one officer from Bangladesh Navy also participated. Various profiling of temperature, salinity, pressure, dissolved organic & inorganic carbon, CFC, trace metals etc were carried out in that cruise.
9. **OTHER ACTIVITIES.** Nil.
10. **CONCLUSION.** Bangladesh is one of the largest deltaic states in the world. Her coastline is highly unstable, therefore frequent data updating is essential for the coastal charts of Bangladesh. However, Bangladesh Government has taken all out efforts to update her prime navigational channels to keep her Sea Lines of Communications open and safe. BN has taken effective measures to produce the INT series charts. The National Hydrographic Committee of Bangladesh is devoted to achieve the national goal in coordination with our various maritime agencies.