



# PAKISTAN PAKISTAN

## NATIONAL REPORT

7<sup>th</sup> MEETING

North Indian Ocean Hydrographic Commission (NIOHC)

Pattaya, Thailand  
27 Feb – 02 March 2007

**PAKISTAN NAVY HYDROGRAPHIC DEPARTMENT**

## **HYDROGRAPHIC DEPARTMENT OF PAKISTAN**

1. The Pakistan Navy Hydrographic Department (PNHD) was established in 1949 and became member of IHO in 1957. As a national Hydrographic organisation, the department is primarily responsible for conducting Hydrographic surveys of coastal and offshore waters of Pakistan and publishing nautical charts and relevant publications to fulfil national and international requirements. The department is well equipped to undertake surveys as per international standards and has already published a series of charts for the entire coast of Pakistan. PNHD comprises of Charting Centre, HQ Navarea-IX, Chart Depot, ENC Division, Survey Vessel/boats and Hydrographic School. Pakistan is also shouldering the responsibility of coordinator for promulgation of Maritime Safety Information in Navarea IX since 1976.

### **HYDROGRAPHIC SURVEYS**

2. Hydrographic department is responsible for undertaking hydrographic survey activities in Pakistani waters. SV BEHR PAIMA (hydrographic survey ship) has carried out the survey of the entire coast of Pakistan. The department has taken up the survey work in a systematic way in order to meet both, national and international requirements. Continuous efforts have been made to adequately survey the critical areas for navigation within Pakistani waters. The department is also undertaking deep sea surveys. Further information in this regard is as under:

a. Coverage of New Surveys. Survey activities for 0 – 200 m depth areas continued to improve the coverage in A1 category area. A1 surveys are near completion and expected to be completed in 2 years time. Survey activities in A2 category areas (> 200m) are progressing at a moderate pace due to commitment of survey assets in high priority areas.

b. New Technologies / Equipment. SV BEHR PAIMA is well equipped to undertake all kind of hydrographic surveys. State-of-the-art equipped/sensors like multi-beam echo sounder, deep sea echo sounder and other modern equipment have been added to the ship's inventory. ENC division have also been established in 2005 in PNHD and since than considerable headway has been made in ENC production.

- c. Acquisition of New Ship. In view of the ever-increasing marine sciences and survey activities, requirement of another survey vessel has become necessary. Efforts are in hand to acquire a multidisciplinary survey vessel.

### **NEW CHARTS AND UPDATES**

3. Pakistan Hydrographic Office has produced the charts covering the North Arabian Sea of which 6 are designated as INT charts. Further, efforts are in hand to print new edition of following charts that will be included in the INT chart series.

- a. Harbour Chart for Gwadar Port (PAK 40).
- b. Jiwani to Sir Creek (PAK 33).

### **ENC PRODUCTION & STATUS**

4. ENC production line equipped with CARIS modules has produced 04 inland ENCs as a pilot project to streamline the production flow and gain experience. Presently, efforts are in hand to produce ENCs covering commercial shipping routes of our area. Moreover, under the bilateral agreement, UKHO has developed 03 ENCs of our area, which will be maintained by PNHD. First 03 complete ENCs with updates will be available to commercial shipping by March/April 2007 through IC-ENC authorised VARs.

### **NEW PUBLICATIONS & UPDATES**

5. Following publications are printed by the hydrographic department on annual, half yearly and weekly basis.

- a. Weekly Notices to Mariners (NTMs).
- b. Annual Summary of NTMs
- c. Pakistan Tide Table.
- d. SUN & Moon rise / set table.

6. In addition to the printed version of above mentioned documents, up-to-date information on navigational warnings and NTMs is also maintained / available on website for online / swift access.

## **MARITIME SAFETY INFORMATION**

7. Pakistan is the coordinator of Navarea-IX. Navigational warnings are promulgated through the Xantic satellite services, while the coastal warnings are promulgated through NAVTEX services. All warnings are maintained / available on website as well. Navigational hazards occurring in the region are effectively communicated for further issuance of Nav warnings through Fax, email and telephone. The most effective mean has been through e-mail. However, few countries are not maintaining communication through e-mail and use other means such as fax and post, which at times causes delays.

## **HYDROGRAPHIC SURVEYING & NAUTICAL CHARTING WORLD WIDE (S-55)**

8. Pakistan has submitted online questionnaires regarding S-55 Hydrographic Surveying and Nautical Charting World Wide. Status of hydrographic surveying & nautical charting of all navigable water within the limits of national jurisdiction and the EEZ have been updated. Maritime Safety Information and GMDSS implementation have also been mentioned.

## **CAPACITY BUILDING**

9. Pakistan Hydrographic Department can offer assistance to regional countries in following areas:

- a. Hydrographic surveys.
- b. Data processing for the production of charts.
- c. Basic Survey Recorder / Technician Course.
- d. Assistance in ENC production line procedures and quality management system.

## **OCEANOGRAPHIC ACTIVITIES**

10. Oceanographic activities in Pakistan are carried out in collaboration with National Institute of Oceanography (NIO). During the survey season, oceanographic cruises are arranged in which scientist from both the organisations participate actively for various oceanographic observations and data collection. The processing of data is carried out at NIO, which is adequately equipped for undertaking such tasks. Both organisations are

actively pursuing various projects including the 'Extension of Continental Shelf Project'. Following were availed through IHO / IOC assistance:

- a. GEBCO Postgraduate diploma in Ocean Bathymetry.
- b. IOC / UNESCO - Provision of a satellite linked telemetric Tide gauge for Karachi port.
- c. A short course on MBES at Singapore under IHO capacity building work programme.

### **OTHER ACTIVITIES**

11. Pakistan actively participates in IHO working groups. Commodore Muhammad Zafaryab, the Hydrographer of Pakistan Navy is a member of IHO working group on the Manual of Hydrography. He has prepared Chapter No 1. IHO Manual on Hydrography that have been published and circulated to the member states. Further, he is also Chairman of ROPME Sea Area Hydrographic Commission (RSAHC).

### **METEOROLOGICAL DATA COLLECTION**

12. Metrological data acquired from various sources is maintained at hydrographic department. A comprehensive database for the met information of Arabian Sea is also maintained. A permanent weather station is installed at department to cross check monitor the weather changes.

### **CONCLUSION**

13. PN Hydrographic department is carrying out the surveys of Pakistani waters of international standards. In addition, PNHD is actively participating in all national, regional and international level maritime activities / forums. Further, PNHD has published the charts for the entire coast of Pakistan in addition to 6 INT charts. Deep-sea surveys are also planned. The department is maintaining all requisites IHO standards for the hydrographic surveys and actively participate in all IHO and regional activities. As a coordinator of Navarea IX, navigational warnings are timely promulgated. PN ENC division has already produced 04 inland ENCs to support naval operations and 03 complete ENCs with updates will be available to commercial shipping by March/April 2007.