



KINGDOM OF BAHRAIN

NATIONAL REPORT FOR THE
2nd ROPME SEA AREA
HYDROGRAPHIC
COMMISSION "RSAHC"
MEETING

TEHRAN, ISLAMIC REPUBLIC OF IRAN
2nd – 3rd May 2006

1. Hydrographic Office/Service:

During the past year the Bahrain Hydrographic Survey Office (BHSO) has been busy with reorganization following the re-structuring of the Survey Directorate. The previous Section was upgraded to an Office. The new organization is proposed to include 33 staff members to reflect the present activities of BHSO. The previous organization was based on the condition of the requirement of a manual office and did no longer meet the requirements and tasks carried out today by the Office. The re-organization is urgently needed, because the office suffers from insufficient number of staff as some key personnel left the office.

2. Survey:

Since the implementation of the new SOLAS Convention (July 1, 2002) the office has carried out joint surveys with the U.S. Navy HYCOOP to ensure that waters leading to Mina' Salman, main port of Bahrain, complied with the standards of S-44, i.e. Special Order/First Order - 100% sea bed coverage and detection of all sea bed features larger than 1 m³.

3. New Charts & Updates:

Late 2004 the BHSO had finalized its first 3 ENC cell for areas leading to Mina' Salman. The cells covered the Approach Channel to the port and the port area. December 17, 2004 these cells were made available to the international maritime community through IC-ENC.

The 4 International Charts produced by Bahrain has been updated along with the national charts of Bahrain waters. All charts except chart 10001 are now converted to the WGS 84 datum.

During 2005 the printing and exchange method for charts have undergone a significant change. Manual production of plates for printing has been replaced by digital production, via PDF and postscript files. The main reason for this change is to improve the capabilities within the office and the printing press used for chart final printing. This change has also greatly improved the customer service as out-dated or out-of-stock charts can be re-produced quite quickly. A spin-out effect of this technique is that charts have now been made available to government, planners, consultants, constructors and other related organizations in PDF or other graphical format as per their request, which make them much more flexible.

The reproduction has also been improved with the UKHO. Postscript files are now exchanged instead of the previous manual produced plates, which mean a significant improved service to the international market.

4. New Publications & Updates:

During 2005 the office has worked on an English/Arabic version of INT1 and the printing of this new publication is in its final stages.

Publication of web based Tide Tables have also been exploited and a trial version might be available on an internally web page later this year.

5. **MSI:**

MENAS is carrying out this service on behalf of the Government of Bahrain.

6. **S-55:**

Survey: The primary maritime shipping route to Bahrain's main port has been surveyed to at least IHO Order 1 with multibeam echo sounder and high resolution side scan sonar.

Charting: All charts except one have been converted to WGS 84.

ENC Data: Three ENC data cells covering the main shipping lane to main port have been published through IC-ENC.

7. **Capacity Building:**

Hydrographic training is required at category A and B levels for BHSO staff. Cartographic training is also required at similar levels.

8. **Oceanographic Activities:**

The office is in the process of purchasing 12 new tide gauges for a permanent island-wide monitoring system used for various activities. The permanent tidal stations will be linked to the main office via GSM data chipset.

It has also just acquired an ADCP for tidal current measurement and plan to order 3 more of the same kind to strengthen and update the Tidal Stream Atlas.

Conclusion/Executive Summary:

The Bahrain Hydrographic Survey Office is today almost totally digital. No products are produced manually.

The office is presently being reorganized and has a great need for recruitment of professionals to undertake all the tasks of the office both nationally and internationally. This is the most urgent problem that needs to be solved.