



SULTANATE OF OMAN

NATIONAL REPORT TO 4th ROPME SEA AREA HYDROGRAPHIC COMMISSION MEETING

SULTANATE OF OMAN – MUSCAT

21 - 23 MARCH 2011

Executive summary

The Hydrographic Department is under Royal Navy of Oman consists of:

- **Hydrographic Survey Unit.** This unit covers the Sultanate's requirements for hydrographic surveys by undertaking inshore and large scale surveys. Other duties include but not limited to carrying out all beach surveys, establishing tidal stations and building tidal database for the entire Sultanate's coastline as well as following up, maintaining and calibrating tidal equipment installed within the main ports of the Sultanate. This unit has a dedicated section for processing and analysis of MBES and SBES data to support operational units.
- **Oman National Hydrographic Office(ONHO).** This Office is set up to compile and issue charts covering Omani waters to the International Hydrographic Organization standards and specifications. It also provides assistance and advice on all matters related to safety of navigation of all Omani waters, maintaining the hydrographic archive which includes copies of data from all surveys carried out in the Sultanate.
- **RNOV AL MABRUKA and RNOV AL SEEB.** These are hydrographic vessels which carry out the hydrographic surveys, both are fitted with MBES systems.

The Roles of National Hydrographic Services in Oman are:

- To provide the nautical data required for safety of life at sea and enable maritime trade and other operations.
- To provide sufficient nautical data and products to support naval operations in defence for Royal Navy of Oman vessels.
- To support merchant ships and private sector on hydrographic, cartographic products and all issues related to safety of navigation.
- To provided hydrographic services in the National Interest. These include surveys or nautical products which are not conducted in support of the safety of navigation or defence but are still essential to the development of Oman.
- To support maritime boundary delimitations including the continental shelf project and enforcement of the provisions of the United Nations Convention on the Law of the Sea, (UNCLOS).

1. Hydrographic Service

The Ministry of Transport and Communications, being the authority responsible for the safety of navigation in the territorial seas, has directed the Ministry of Defence, represented by the Royal Navy of Oman, to take responsibility for all matters related to the management of and supervision over all national hydrographic issues. The Royal Navy of Oman is responsible of all the hydrographic surveys and related tasks, charting and issuing of hydrographic publications.

2. Surveys

- HI 84 (Wudam to Sohar), HI 113 (Approaches to Southern Naval Base) and HI 109 (Ad Duqm port approaches) have been completed.

- Approaches surveys to the new port of Ad Duqm were carried out by Royal Navy of Oman and UK Royal Navy vessels. The data set covers the area from the dredged channel to the 50 metre contour, an area of nearly 700 km².

3. New charts & updates

ENC's

No Omani ENCs produced yet. However, RNO is currently studying the options for converting the existing paper charts to ENCs. ENC capability in the process of being generated, dates to produce ENCs are yet to be confirmed.

RNCs

Not applicable - ONHO charts are in vector format only.

INT charts

The following Omani charts in medium and large scales published as "INT" charts in AREA "J" Indian Ocean:

INT 749	OM1	The Sultanate of Oman	Edition November 2004
INT 7173	OM250	Approaches to Port Salalah	Edition November 2009
INT 7191	OM254	Eastern Approaches to Muscat	Edition July 2004
INT 7192	OM255	Western Approaches to Muscat	Edition June 2003
INT 7201	OM257	Approaches to Mina Sohar	Edition March 2008
INT 7200	OM301	Sur to Qalhat	Edition June 2006
INT 7172	OM1201	Port Salalah to Bandar Janjari	Edition October 2004
INT 7186	OM1212	Ras Al Had to Abu Da'wud	Edition August 2004
INT 7198	OM1216	Sohar to Ras Daba	Edition November 2005
INT 7188	OM3505	Muscat to Lima	Edition June 2004

National Paper charts

ONHO has produced 23 paper charts in different scales, out of scheme of 52 charts. Charts OM 1219 and OM 1218 were published at the end of February 2011. Charts OM 1215, OM 1214, OM 1207, OM 257 and OM 252 are at final production stage. Intend to produce the following new charts OM 1202, OM 101 and OM 251 and a new edition of charts OM 100 in 2011.

Other Charts

A large number of special **military** and **civil** products were made to meet the requirements of the military and other public and private sectors.

4. New publications & updates

ONHO issued the 7th edition of the annual Oman Maritime Book. The information contained in the book is intended to provide the mariner with comprehensive information regarding tide

and wrecks in Oman, as well as navigational lights and radio signal information and distance table for Oman and selected adjacent waters. It is planned to produce the book in a digital format next year.

5. **Maritime Safety Information (MSI)**

- MSI provides services such as drafting and broadcasting the Navigation warnings through Muscat Radio, covering Sea of Oman and Arabian Sea areas. Oman is operating with one NAVTEX station located at Watayah, it is remotely controlled from Al Amirat in the Muscat Area.
- The Ministry of Transport and Communications is the authority for GMDSS in Oman. The Telecommunications Regulations Authority (TRA) is responsible to the Ministry of Communications for all radio and satellite communications aspects of GMDSS. The Royal Air Force of Oman operates the national rescue coordinate centre (RCC) and is responsible for coordinating search and rescue operations in Oman

6. **S-55** Latest update (Tables).

Survey 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.

Depth	A	B	C
< 200 m	50 %	40 %	50 %
> 200m	30 %	10 %	70 %

7. **Capacity Building**

- Training of hydrographic technicians is being undertaken ‘in-house’. Currently there are two groups of trainees at different stages of training. This is a large commitment for a small office but there is no alternative available, which meets the needs of the Royal Navy of Oman.
- All these groups, except one, have received a 2 week basic marine cartography course, which was presented by two visiting trainers from the UKHO as part of the close cooperation between the two offices within the bi-lateral agreement. The last group received this course in March 2011, which was followed by 1 week of basic Caris training.
- Use is made of other Oman institutions for relevant parts of the training, for instance foundation course subjects for which the new survey technicians are sent to colleges of technology for the math, sciences, English and AutoCAD courses.
- One cartographic technician received a 5 weeks ENC course in UKHO in 2010.
- One officer completed HM(H) CAT B course at FOST-HM in UK in 2010, presently one officer undertaking the HMAS Cat A course and one the HM(H) Cat B course at FOST-HM. One further officer is booked onto the HM(H) Cat B course later in 2011.

- In country FOST-HM MBES training by MBM was planned for March 2011; however this has been postponed until later in the year.
- For all training, particularly our hydrographic technicians course, we are short of qualified instructors, thus any outside assistance which can be given, particularly by visiting trainers, would be immensely useful.
- RNO is always keen to search for suitable courses in different countries to increase the experience and knowledge level of Hydro specialists.

8. Oceanographic activities

No oceanographic activities exist yet in Oman. Planning training by FOST-HM was cancelled due to an overseas activity moratorium by Flagship Training.

9. Other activities.

Publicity

The national press in Oman printed several articles highlighting World Hydrographic Day, with the assistance of the ONHO. A meeting of RSAHC is going to be held in the Sultanate between 21–23 Mach 2011, attendance by a number of international, regional and national hydrographic related organisations, personnel and companies.

Equipment

Fugro SeaSTAR and OmniSTAR dGPS systems added to the two hydrographic ships and short support team replacing the old systems. Valeport Tidemeter and tide gauges also are replaced in the two main ports in the Sultanate. A number of other minor equipments have been purchased, including the Starfish side scan sonar for harbour and beach surveys. Investigations are underway on the procurement of a gGPS system for minor geodetic work.

Participate in IHO Working Group

- Attended 2nd HSSC meeting in Rostock in October 2010.
- Attended 10th Hydro 2010 conference in Rostock November 2010.
- Formally an associated member of the NIOHC.
- A member of S23 WG.

10. Conclusions

Hydrographic Service in Oman continues to develop and gain experience in the latest hydrographic and cartographic technologies. Oman NHO produced 21 paper charts and no Omani ENC's produced yet. However, one officer has now completed a 21 week ENC course and we are currently studying the options for converting our existing paper charts to ENC's in preparation for the issuing of the Sultanate's first organic ENC.