



SULTANATE OF OMAN NATIONAL REPORT

TO 16th NORTH INDIAN OCEAN
HYDROGRAPHIC COMMISSION MEETING
(14 - 16 MARCH 2016, BANGALADESH)

Oman National Report 2016

Executive summary

1. **Hydrographic Office/Services in Oman:** The Royal Navy of Oman is taking the responsibilities of providing hydrographic services in all sectors Nationally and Internationally through the following directorates:

a. **Directorate of Hydrography (DOH-RNOHQ).** It is basically responsible for giving consultancy and advice in hydrography and any other related subjects to all RNO branches. It is also the source for all plans/ policies and other matters concerning hydrographic affairs.

b. **Directorate of Oman National Hydrographic Office (DONHO).** The main tasks and duties of this directorate remains the same, it provides safety of navigation to all Omani waters, which is achieved by producing and maintaining navigational charts covering Omani waters in different scale, assisting Omani maritime boundaries delimitation including continental shelf extension project, giving advice on all matters related to Maritime Safety Information, and maintaining the National Hydrographic Archive which includes copies of data from all surveys carried out in Sultanate of Oman.

c. **Hydrographic Unit (HU).** This unit is under the Directorate of Hydrography and it is responsible of various duties including but not limited to, carrying out all beach surveys, establishing tidal stations and analysing tidal data as well as, processing of MBES and SBES data and finally supporting other operational units and maintaining survey equipments.

d. **The National Hydrographic Archive (NHA). This Archive (NHA)** contains several types of Hydrographic surveys old and new some of which been collected/compiled by RNO Hydro Units and others by friendly countries through a given supports and through a bilateral agreements or joint surveys and it includes surveys executed through specialized hydro-survey companies which are authorized to do the surveys in behalf of related/concerned ministries for their coastal projects. all of these data are systemically indexed and referenced to ease and facilitate the process of obtaining/provision of the data/information for all users at all time.

2. **Surveys:**

2.1. **coverage of new surveys.** All hydrographic surveys are tasked to RNOVs through Hydrographic Instructions (HIs) as schedule by the directorate of hydrography where a number of new Hydrographic surveys were carried out recently by Survey Vessels and Hydrographic Unit to date along the coast of the Sultanate of Oman to support the national interests as well as enhancing the safety of navigation, these surveys were delivered/received and indexed by the Oman National Hydrographic Archive.

2.2. **New technologies and equipments.**the hydrographic unit and all of the Survey Vessels are equipped and fitted with MBES systems and other sophisticated surveying equipments and softwares in order to perform hydrographic surveying to the IHO standards and specifications.

2.3 **New survey ships.** After the decommissioning of RNOV Al Seeb and the postponing of the project Morjan which ordain the constructing of new Hydro/Ocean/Scientific (multirole) ship; where now Hydrographic surveys are carried out only by RNOV.alMakhirah however a new survey ship will be enrolled shortly (RNOV. Al Rahmaniya) which will be replacing RNOV. Al Seeb (funds have allocated to equip the new ship with new survey equipments).

2.4. **Problems encountered.** (survey capabilities; currently Ships are limited to only 1 survey ship and the cancellation of project "Morjan" is confirmed)

3. **New charts & updates:**

3.1. **ENCs.** The process of production Oman ENC's is an ongoing process; where the priority is to convert large scale existing navigational paper charts first to ENC's then the medium and small scales to follow. The details of converting, updating and quality control (Verification and Validation) are as follows:

- a. ONHO sent a number of cells to IC-ENC for further QC checks, those cells now undergo final QC process in ONHO according to IC-ENC reports; they are expected to be ready soon.
- b. A number of cells will be ready soon to be sent to IC-ENC for final QC process as planned/agreed; this is expected by the end of 1st quarter 2016.

3.2. **ENC Distribution method.** Recently, Oman signed the letter of intention to distribute Omani ENC's through IC-ENC since then progressive steps were taken to ease the QC process/distribution of the new cell.

3.3. **RNCs.** ONHO is not producing any of these charts so far but checking the possibilities (the feasibility and methodology of producing such charts or equivalents).

3.4. **INT. Charts.** The Omani INT. Charts scheme which cover both area "I" and "J" has been revised, according to national needs, coastal development, and other requirements, accordingly the list of Omani INT. charts in S11 are proposed for updating where most updates are in area "I" once this is done changes will be reported through proper channels .

3.5. **National Paper charts.** Oman producing a number of national paper charts as planned and according to national requirements in different scales as schemed, these charts are continuously maintained. Recently ONHO published a new chart of Khasab Port (Om101) in 23 July 2015 and planning to publish a number of new charts during this year 2016.

3.6. **Problems encountered.** (NIL)

4. New publications & updates:

4.1. Oman national hydrographic office (ONHO) published recently the Annual Oman Maritime Book, this book provides valuable information to the mariners such as (Tide Tables, List of Radio Signals, List of Lights, National List of Wrecks).

4.2. **Problems encountered.** (NIL)

5. Maritime Safety Information:

5.1. Oman National Hydrographic Office is responsible of all navigational warning in the sea of Oman and Arabian Seathis including drafting and broadcasting the Navigational warnings and MSI services as needed through Muscat Radio, Oman isoperating with one NAVTEX station located at Al Amirat and OHHO is in close cooperation with all concerned authorities/parties including NAVAREA IX Coordinator (Pakistan) to facilitate the Promulgating of all navigational warning through safety net.

5.2. Oman National Hydrographic Office (ONHO) also issuing the monthly Oman Notice to Mariners to provide timely marine safety information for the correction of all Omani navigational charts and publications from a wide variety of sources.

5.3. 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) which is responsible for coordinating search and rescue operations in Sultanate of Oman.

5.4. **Problems encountered.** (Oman NAVTEX Station encountered some problems and currently is un operational)

6. C-55:

The latest updates on the status of hydrographic surveying in Omani water are shown below, where the survey coverage is in percentages as following:

Depth	A (adequately surveyed)	B (requires re-survey)	C (not systematically surveyed)
< 200 m	45 %	15 %	55 %
> 200m	60 %	10 %	40 %

Where:

A = Percentage which is adequately surveyed.

B = Percentage which requires re-survey at larger scale.

C = Percentage which has never been systematically surveyed.

7. **Capacity building:**

To maintain the required level of efficiency and effectiveness at all times for all employees, rehabilitation of the hydro-staff (technician and officers) to efficiently engage in their future work is considered to be a must. Qualification is a continuous operation regardless of the many hurdles in delivering proper training. At present it is achieved by both In-house and overseas training, the recent capability building is observed in the following:

- a. Completion of the basic hydro-training for a group of hydrographic technician in Hydrographic School in the Naval Sultan Qaboos Academy on 13th August 2015.
- b. Two Officers attending a Cat. B course in Basic Marine Cartography and ENC's in IIC-ENC (India) for six months another two Officers are now in Malaysia for Cat.A course in Hydrographic surveying for a period of one year.

7. **Oceanographic activities:**

7.1. **General.** Different sectors and organizations are dealing or responsible for most of oceanographic activities in Oman where the RNO (The Hydrographic Office/ Services) is not fully in charged in acquiring/collecting nor processing oceanographic data but only limited to archiving this kind of data.

7.2 **Tide Gauge Network.** Oman monitors Tides over the Omani coast through a number of permanent stations where the Tide Gauges in these stations are fully automated, highly precise and with satellite connectivity. The network then is connected by a number of Standards, Secondary and Minor Tidal stations. Seven new permanent tide gauges are now installed by DGCAM covering the coast of Sultanate as part of MSL observation.

8. **Other Activities:**

8.1. **Participation in IHO working Groups.** Oman National Hydrographic Office (ONHO) is an active member in Ropme Sea Area Hydrographic Commissions (RSAHC) and associate member in the North Indian Ocean Hydrographic Commission (NIOHC), and it is strongly participating in IHO-WG Such as S23 and WENDWG the ONHO participation is observed in the following:

- a. Oman hosted the last meeting of (NIOHC) in Muscat (15 - 18) March 2015 and ONHO held a meeting of Ropme-SAHC International Charts Co-ordination Working group (RSAHC-IICWG) (29-30) April 2015.
- b. ONHO participated in a Steering Committee meeting of the International Center for Electronic Navigational Charts (IC-ENC) during the period 06 - 09 September 2015 in (Munich) Germany.
- c. ONHO attended the Advisory Board on the Law of the Sea (ABLOS) conference in Monaco during the period 20 - 22 October 2015

8.1. According to disaster prevention, environmental protection, astronomical

observation there are different organisations observing and monitoring and dealing with these issues and Oman Hydrographic Office/ Services is always cooperating and it is in close contact with these organisations especially in related field and common interest/areas.

9. Contact Information:

Directorate of Hydrography (DOH-RNOHQ)
Tel: +968 24322832
Fax: +968 24337037

Directorate of Oman National Hydrographic Office (DONHO)
Tel: +968 24312350
Fax: +968312460
E-Mail: nhooman@omantel.net.om

10. Conclusions:

10.1 Oman National Hydrographic Office (ONHO) recognizes the importance of Hydrography worldwide and it works hand on hand with other national and international organisation to provide hydrographic services and other relevant/vital information to all mariners/users for a safer navigation in Omani waters and in addition to that its contributes through Royal Navy of Oman and other concerned sectors to increase safety awareness in marine affairs and other relate fields i.e. including and not limited to anti piracy operations, search and rescue, preventing marine disasters and protecting marine environment.

10.2 ONHO through the National Hydrographic Requirement Committee (board) - not entirely active - is making/revising the strategic plan of both hydrographic surveying and production of Nautical publications to fulfill the National requirements for better Hydrographic services in Omani waters and despite the problems/issues encountered the ONHO had another successful year and it will save no effort to continue developing and coping with the trends and the new technologies in all sectors in order to deliver better Hydrographic services to all sectors/users at all times.