



NATIONAL REPORT OF KINGDOM OF SAUDI ARABIA

18th North Indian Ocean Hydrographic Commission Meeting

09 – 12 April 2018

Goa, India

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1. Hydrography Department

No changes from IHO yearbook.

2. Hydrographic Surveys

- Coverage of new surveys (2017 – 2018) in Red Sea and Gulf of Aqaba:-
 - A Memorandum of Understanding (MoU) has been signed for the acquisition of hydrographic survey data with national agencies and the supplied data will be evaluated for data accuracy as per the guidelines mentioned in ‘Guidelines for Quality Control ‘of S44 ‘Standards for Hydrographic Surveys’.
 - New surveys will be planned based on the results of the acquired data.
 - Hydrographic Survey Vessel ALMASEH ALBAHRI SULTAN has been engaged in offshore surveying. These surveys are for production of medium and small scale charts. Till now we have completed coverage from Offshore Yanbu to Offshore Al Lith (deep waters west of reef line) covering the total area of 35,000 km² approximately.
 - HSV ALMASEH ALBAHRI SULTAN is has also been engaged in full-fledged hydrographic surveying in the Gulf of Aqaba and till now 1,562 km² has been surveyed.

3. New Charts & Updates

General Commission for Survey (GCS) has produced following charts till 2018 from results of Hydrographic Survey Project (HSP) 1-5 in Red Sea:-

Chart Status	HSP-1	HSP-2	HSP-3	HSP-4	HSP-5	HSP - Sultan	Total
Area in km ²	3,956	3,819	3,490	8,164	11,426	35,000	65,855
ENCs	4	4	3	9	12	5*	37
PNCs	4	4	3	9	12	5*	37
INT charts	None	None	None	None	None	None	
Coastal Zone Management Charts	7	7	7	14	38	Nil	73

* in progress

QC/QA, encryption and distribution arrangements for the charts are under active consideration at the GCS.

4. HDM Data Population

Following the successful introduction of the Hydrographic Data Management System (HDM) as part of the Marine Spatial Data Infrastructure, within GCS, the process of data population of the HDM has continued throughout 2017. As the National Hydrographic Office of Saudi Arabia, the adaption of state of the art technology has assisted in creating a seamless database, maintaining consistency among the products and the creation of Nautical Publications like List of Lights, Sailing Directions and Tide Tables.

The Saudi Arabia National Geo Portal can be accessed from the below link:

<http://geoportal.sa/GCS/WebPages/Map/FundyViewer.aspx?language=en-US>

The loading of hydrographic surveys to and the conversion of standalone ENCs & Paper Charts within the database driven system is ongoing. This structured process will enable us to grow as a full-fledged hydrographic office. We are ready to support our neighboring countries to adapt and implement this technology should they so wish and can provide in-house training in support of technology advancements.

5. MSI

The Maritime Safety Information service commissioned by GCS, at the Makkah Branch, is presently under review.

6. C-55

A. Hydrographic Surveying*

Status of hydrographic survey of all navigable waters, including internal waters, out to the limits of the EEZ:

Survey coverage (Red Sea and Gulf of Aqaba) 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.

	A	B	C
Depths < 200m	95	0	0
Depths > 200m	98	0	0

*Note:

It is anticipated that the Saudi Marine Waters of the Red Sea and Gulf of Aqaba (namely 197,577 km²) will be fully surveyed by 2018 year end. The majority of seabed coverage being at 100% ensonification. (see map on page 4).

B. Nautical Charting*

Status of nautical charting within the limits of the EEZ.

- A = percentage covered by INT series, or a paper chart series meeting the standards in M-4.
- B = percentage covered by Raster Navigational Charts (RNCs) meeting the standards in S-61.
- C = percentage covered by ENC meeting the standards in S-57.

Purpose/Scale	A	B	C
Offshore passage/Small	-	-	-
Landfall and Coastal passage/Medium	33%	Nil	33%
Approaches and Ports/Large	30%	NA	30%
Percentage of Group A showing depths in metres	100%		
Percentage of Group A referenced to a satellite datum	100%		

**The conversion of standalone products into the database driven system is in progress and GCS will update the status to IHO after completing the conversion.*

7. Capacity Building (CB):-

Capacity Building of personnel, through in-house accredited courses, has been nil for the period since the present numbers of trained staff are sufficient for both the activities in-hand (2017/2018) and those scheduled for year 2019/2020.

8. Oceanographic Activities:-

GCS collects oceanographic information from various sources. Most of this information is collected while undertaking hydrographic surveys and from the National Tide Gauge Network (NTGN) and the Marine Science Data Buoy projects.

GCS operates the NTGN of seven (7) stations in the Red Sea & Gulf of Aqaba and five (5) stations in the Arabian Gulf for advanced prediction of tides (for navigation) and sea level studies. GCS also supports collaboration projects for collecting oceanography data with Saudi Universities.

GCS has been publishing Tide Tables since 2016.

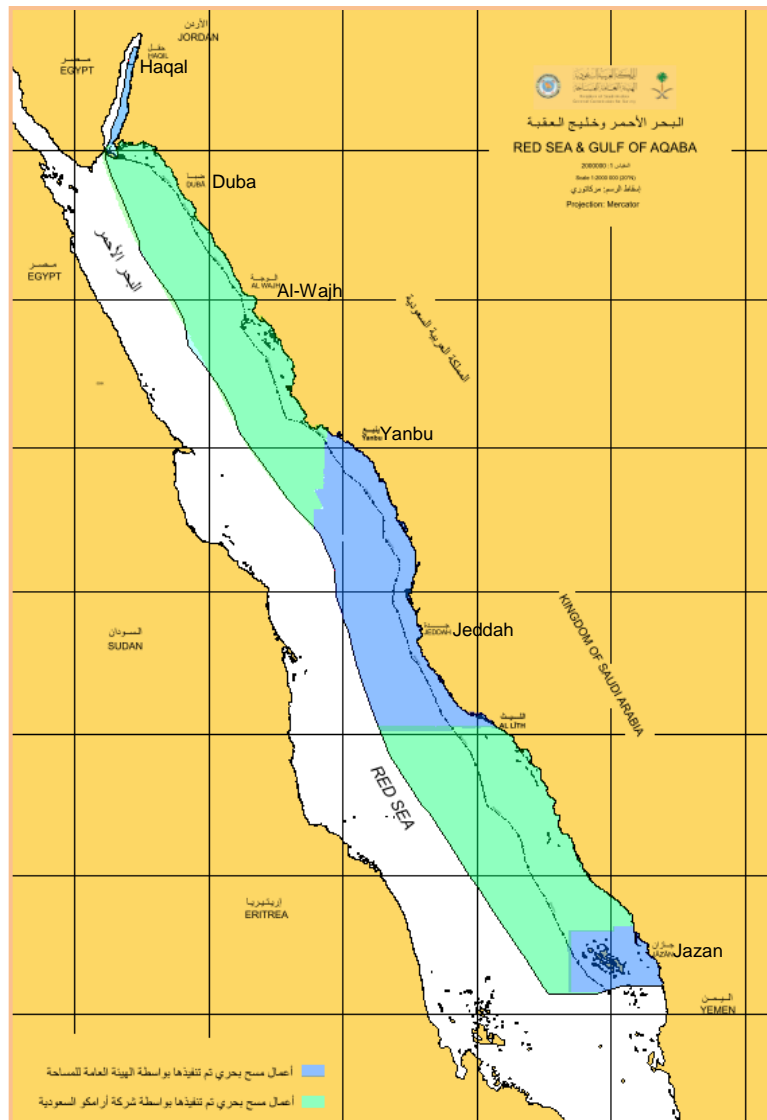
9. Other Activities:-

GCS is also preparing customized products as per the requirement of its stake holders and the Hydrographers and Cartographers are actively participating in the national exhibitions and seminars. GCS is working in integrating the HDM project with the Geographical Information Centre (GIC) to make the products available online as part of self-sustainability.

10. Conclusion:-

GCS in Kingdom of Saudi Arabia continues to develop and gain experience adapting state of the art technologies for hydrographic surveying and nautical publication, committing to assure safety of navigation under IHO/IMO regulations. It is expected that the coastal series of nautical charts will be completed by 2020/2021 for the entire KSA coastal waters.

In step with the Nation's "Vision 2030" Program, GCS is focused on participating fully with the associated objectives and goals outlined in order to present world-class nautical charting and associated products to benefit economical maritime services, trade, tourism, Coastal Zone Management and the Blue Water Economy



Overview of Red Sea and Gulf of Aqaba Hydrographic Survey Coverage (197,577 km²)