



MYANMAR NATIONAL REPORT

**THE 18TH NORTH INDIAN OCEAN HYDROGRAPHIC
COMMISSION MEETING**

GOA, INADIA

9th - 12th April, 2018

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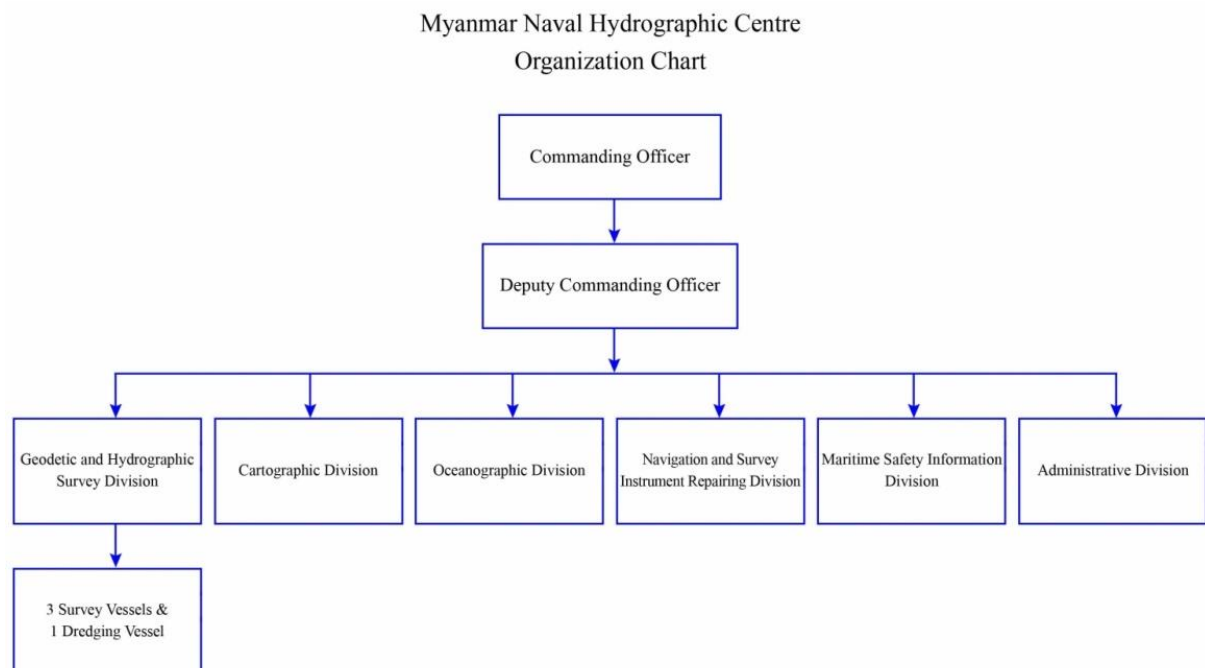
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1. Hydrographic Office/ Services

1.1 Myanmar Naval Hydrographic Centre-MNHC was founded in 1952 such a former name as Naval Hydrographic Depot. MNHC is the only government authorized organization which has solely responsibility of conducting hydrographic surveys and producing official nautical charts and publications. In the year 2003, the organization became a member of IHO- International Hydrographic Organization. Since established, it takes the role of hydrographic services, including collection and compilation of hydrographic data, production of nautical charts and publications, keeping up to date of all nautical information necessary for safe navigation, repairing and servicing of survey and navigation instruments.

1.2 Since established in 1952, MNHC was formed by follow divisions-

- (a) Geodetic and Hydrographic Survey Division
- (b) Cartographic Division
- (c) Oceanographic Division
- (d) Navigation and Survey Instrument Repairing Division
- (e) Maritime Safety Information Division
- (f) Administrative Division



1.3 Under administrative control of MNHC, the following three hydrographic survey ships are attached to No (1) Naval Fleet, Yangon, Myanmar-

(a) Coastal and Offshore Hydrographic Survey Ship “Innya”



This vessel came into hydrographic services in 2013 and was fully equipped with hydrographic instruments and systems in late 2013. It has done successfully many coastal and offshore surveys.

(b) Coastal Survey Vessel “807”



This vessel is in hydrographic services since 1962 and till now. The vessel number appears as “807”. Digital survey equipment and systems are installed on board.

(c) Near Shore Survey Vessel “115”

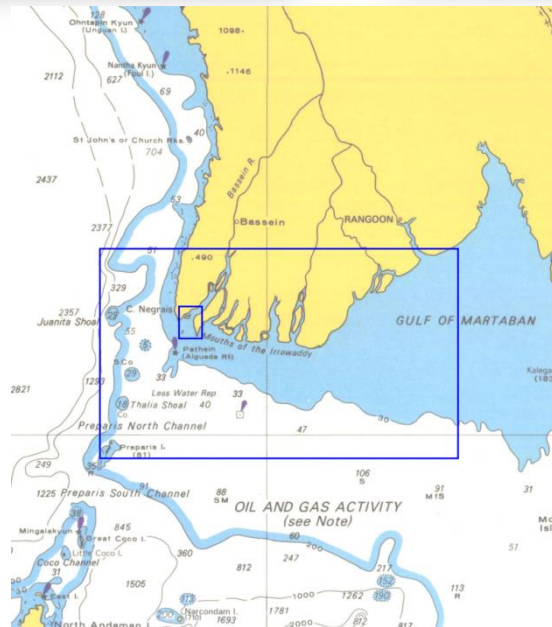


This vessel has also joined to hydrographic service in year 2013, also fully equipped with modern hydrographic survey instruments and systems. The mission of this vessel is to conduct hydrographic survey at near shore waters.

2. Surveys

2.1 MNHC has been focusing and conducting hydrographic surveys as per priority of shipping volumes in national waters in accordance with MNHC’s own chart scheming. Since last survey year, MNHC had undertaken 6 hydrographic surveys- 1 new survey, 1 edition survey and 4 site plan surveys in Yangon River. MNHC had implemented many hydrographic surveys by using new

hydrographic equipment and systems. The organization had extended its ability of achieving quality data in accordance with IHO standards.



2.2 **New Technologies and Equipment** MNHC has acquiring the necessary equipment and tools for implementing hydrographic activities. New technologies and equipment in hand are as follows:

- (1) Single beam Echosounder Bathy 500
- (2) Kongsberg Geoswatch Plus Multibeam Echosounder
- (3) EM2040C Multibeam Sonar
- (4) EM 712 Multibeam Sonar
- (5) Leica DGPS Master (GS-10) and Rover (GS-15)
- (6) Trimble DGPS Master and Rover
- (7) Hypack Software
- (8) CARIS HIPs & SIPs
- (9) Automatic Tide Gauge
- (10) TOTIS Tidal Prediction Software
- (11) Automatic Recorder
- (12) C-Max Side Scan Sonar
- (13) Sub Bottom Profiler
- (14) Current Meter
- (15) Sound Velocity Profiler (SVP)

2.3 **New Ships** Nil.

3. New Charts and Updates

3.1 **ENCs** MNHC efforts to produce ENCs which reflect from some existing paper charts which are of country's important navigable waters and major port area. So far, MNHC could produce totally 4 ENC cells and are available in commercial uses. To accelerate ENC production, MNHC still requires more trainings and experiences in the field of ENC Production, Distribution and Maintenance.

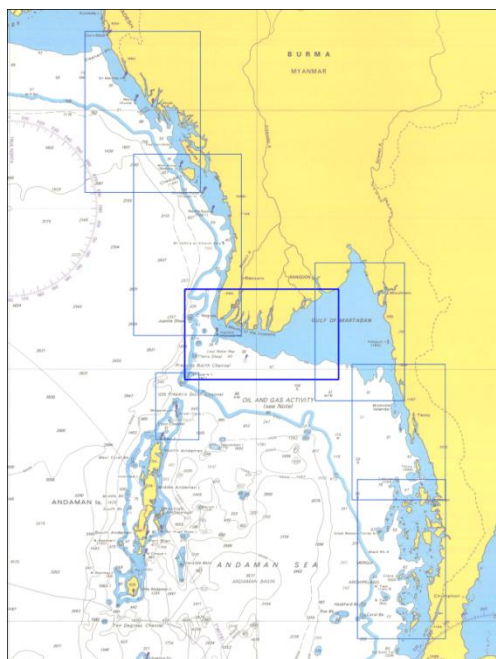


No	ENC	Usage Band	Remark
1	MM4009a0	Approach	Released
2	MM4009a1	Approach	Released
3	MM40024a	Approach	Released
4	MM40024b	Approach	Released

3.2 **ENC Distribution Method** MNHC distributes its 4 ENC cells through UKHO VAR.

3.3 **RENCs** Nil.

3.4 **INT Chart** MNHC had already executed to conduct survey as its future plan and to produce INT charts in Myanmar national waters. The INT number 7438 area had been successfully conducted hydrographic surveys and its compiled data will soon be appeared as both paper and electronic versions.



3.5 National Paper Charts Since established, MNHC had produced 132 nautical paper charts but most of them are not in commercial uses before and also need updating. As per priority of safety of navigation, MNHC plan to produce paper charts for commercial available. In last year, MNHC had produced 3 updated charts as per priority.

No	Chart	Scale	Remark
1	07a	1:40000	2 nd Edition
2	22a	1:80000	3 rd Edition
3	21d	1:25000	2 nd Edition

3.6 Production Systems MNHC use the following systems for paper chart and ENC production-

- (a) Caris GIS
- (b) Caris S-57 Composer
- (c) Dkart Office
- (d) Dkart Publisher

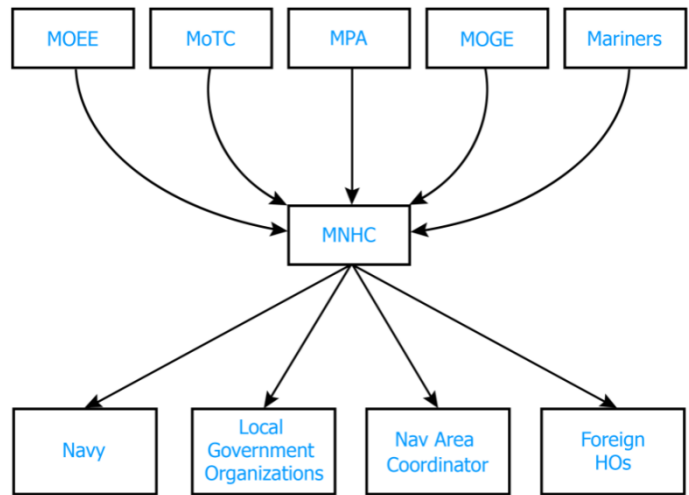
4. New Publications and Updates

4.1 As its responsibility and function, MNHC has producing NtM Year book, inland water directory in local language and annual tide table.



5. Maritime Safety Information (MSI)

5.1 As MSI concerns, MNHC is working together with International Hydrographic Community nowadays and other local government organizations such as Myanmar Port Authority-MPA, Myanma Oil and Gas Enterprise-MOGE, Ministry of Transportation and Communication- MoTC, Department of Marine Administration-DMA and Directorate of Myanmar Inland Waterway, etc.



MSI Flow Chart

5.2 MNHC shares the maritime safety information in the form of Notices to Mariners which are promulgated on NAV AREA WARNING issued by Coordinator and also this information is given to other Foreign HOs. Total (49) Notices to Mariners were promulgated in 2017 and so far (11) NtMs have been promulgated in this year 2018.

5.4 **Existing infrastructure for Transmission** MNHC is also working together with Maritime Rescue Coordinating Centre-MRCC which is operating under Myanmar Navy. MRCC is also one of the focal points for MSI which is in the network of Regional Navies. MRCC had installed NAVTEX receiver and GMDSS equipment with VHF, MHF and HF. AIS and GMDSS systems are monitoring the regional seas and the information is shared between Regional Navies. The following focal points are to be contactable-

- Telephone [+953131642](tel:+953131642), [+953131651](tel:+953131651)
- Fax [+951202417](tel:+951202417)
- E-mail mrcc.yangon@mptmail.com.mm



MSI Network

5.5 The proposal to establish new GMDSS and coast radio stations had been forwarded to the government and the project includes to be provided with 9 coast radio stations together with AIS, 3 NAVTEX stations and 3 radar stations along the coast.

6. C-55

6.1 Status of Hydrographic Surveying:

A= Percentage which is adequately surveyed.

B= Percentage which requires resurvey at larger scale or to modern standards.

C= Percentage which has never been systematically surveyed.

	A	B	C
Depth< 200 m	80%	15%	20%
Depth>200 m	-	-	100%

6.2 Status of Nautical Charting

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 Electronic navigational Charts (ENCs), meeting the standards in S-57.

	A	B	C
Offshore Passage/ Small Scale	-	-	-
Landfall and Coastal	60%	-	-
Approaches and Ports/ Large Scale	100%	-	60%

6.3 Status of Maritime Safety Information

6.3.1 Navigation Information

Service	YES	NO	Partial	Remarks
Local Warning	✓			MRCC
Coastal Warnings	✓			MRCC
NAVAREA Warnings	✓			Sent/ Received from India
Port Information	✓			Myanmar Port Authority

6.3.2 GMDSS Implementation

Service	YES	NO	Partial	Remarks
Master Plan	✓			MRCC
A1 Area	✓			MRCC
A2 Area	✓			MRCC
A3 Area	✓			MRCC
NAVTEX	✓			Received by MRCC
Safety Net		✓		

7. Capacity Building

7.1 MNHC is occasionally receiving CAT B and CAT A hydrographic courses from regional coordinator, India. In last year, MNHC received the following CB courses/workshops -

- (a) Paper Chart Production and Maintenance Workshop – Myanmar.
- (b) ENC Production Workshop- India.
- (c) Meteorological Workshop- Myanmar.
- (d) Customized Oceanographic Course- India.



7.2 **Training Needed** Though MNHC has received the trainings and workshops occasionally, MNHC still requires more trainings and workshops in Hydrographic and Cartographic fields and also MSI training.

8. Oceanographic Activities

8.1 MNHC's representatives had been onboard Chinese Research Vessel and participated in the oceanographic research activities in early this year 2018.



8.2

9. Other Activities

9.1 **Aids to navigation activities:** MNHC involves and cooperates with MPA in the maintenance activities of aids to navigations.

9.2 **Meteorological activities:** MNHC collects meteorological data from navy ships along the coast and then shares to DMH- Department of Meteorology and Hydrology for future weather predictions.

10. Conclusion

10.1 MNHC has been conducting many hydrographic surveys and producing nautical charts- Paper Charts and ENCs to fully cover its national waters in accordance with IHO standards. MNHC cooperated with local organizations, NAV AREA COORDINATOR and Foreign HOs for MSI concerns. MNHC also aims to participating in International Hydrographic Events and Hydrographic Communities at different levels.

Yangon, April 2018