ISLAMIC REPUBLIC OF IRAN

Ministry of Roads and Urban Development

Ports and Maritime Organization (PMO)

National Report to the 5th ROPME Sea Area Hydrographic Commission

Final Version

Kingdom Of Saudi Arabia
04 - 06 March 2013

Executive Summary

Islamic Republic of Iran has become member of IHO Since 1961. All the hydrographic activities are organized and monitored by Iranian National Hydrographic Committee (IRNHC).
The objective of Iranian National Hydrographic Committee is to provide services in order to enhance the safety of navigation within Iranian coastal waters, territorial sea, EEZ and inland waters. The principal services are the provision of Nautical Information, including Nautical Charts, Notices to Mariners, Navigational Warnings, etc…
The provision of accurate and up to date charts provides significant economic and commercial benefits through facilitation of maritime trade and other marine activities.

Mission:

The mission of Iranian National Hydrographic Committee is to ensure the provision of adequate and timely hydrographic information, to the International maritime community and other stakeholders and purposes, nation –wide (e.g. offshore constructions, research activities etc.), through the co-ordination of local hydrographic organizations.

Objectives:

The objectives of the National Hydrographic Committee are as follows:
1 – Co-ordination of national hydrographic activities;
2- To unify the national nautical charts, documents and publications;
3- Bilateral or mutual co-operation with IHO and regional States.

1-Hydrographic Services:

Iran (Islamic Republic of)

PORTS AND MARITIME ORGANIZATION Maritime Affairs Department No. 1 PMO Building, Shahidi St., Shahid Haghani Highway, Vanak Sq. Tehran- IRAN	
Ministry of Roads and Urban Development	**Department of which the Hydrographic Officer is Part**
Safety of Navigation, Hydrographic Survey, Notice to Mariners, Chart Production, ENC Production MSI Services	**Principal functions of the H.O.**
11 February	**National Day**
+9821 8865 1116 , +9821 84932143, +9821 84932152, +9821 8493 2675 aparhizi@pmo.ir Ahmad PARHIZI Parizi@pmo.ir Saeid PARIZI	**Telephone: Fax: E-mail of Contact Person:**
June 1961	**Date of establishment and Relevant National Legislation**
Mr. Ahmad FOROUGHI Director General of Marine Operation and Maritime Safety Tel: +9821 8865 1116 Fax: +9821 8493 2675 E-mail: foroughi@pmo.ir	**Name and Rank of Director or Head**
2013 = 2,800,000 GT	**Tonnage**
€ 30, 000 ,000	**Total Budget**
Mr. S. PARIZI Mr. M.H. MOSHIRI Mr. SH. GHREDAGHI	**Staff employed- Hydrographers (Name and rank of managing staff)**

Mr. S.R. NOURBAKHSH Mr. R. RANJBAR Mr. E- KAZEMI Ms. A. MOJTAHEDI Ms. F. SALAMI Mr. A. Mr. M. MENBARI R	**Cartographers (Name and rank of managing staff)**
Mr. M.H.KHODDAM MOHAMMADI Mr. J. VAHEDI Mr. A. PARHIZI 150 Persons	**Administrators (Name and rank of managing staff)** **Other staff**
2650 Sheet Digital Charts in CARIS format 100 Cells	**No. of Paper Charts Published** **No. of ENC Charts produced**
Displacement Date Launched Crew 1188 2001 20 1288 1984 34 1188 2001 36 935 2005 15 1311 1966 20 930 2002 – 2005 20	**Surveying vessels/Aircraft** **IRAN ABNEGAR Hydro. vessel** **EKTESHAF** **NAYBAND** **PERSIAN GULF Dolphins 1-5** **AKAM** **Metal Vessels (Abnegar 1)** **Fiber glass boats (Abnegar 2 & 3)**
Ports and Maritime Organization (PMO) according to national law has responsibility of all maritime activities including : 1- Maritime Safety and the Protection of Marie Environment 2- Aids to navigation in I.R. of Iran's territorial waters and waterways. 3- Hydrographic Surveys. By establishing National Hydrographic Committee (IRNHC) in 2003 , in I.R. of Iran, all the activities related to hydrography , paper and ENC Chart production are being decided in this Committee, and will be produced by other governmental Organizations such as NCC and NGO	**Other Information of interest**

2-Hydrographic Surveys:

New Technologies and /or Equipment

- DGPS with Radio ability
- Motion sensors,
- Single beam echo sounders,
- Multibeam echo sounders
- Seabed classificator
- Side Scan Sonar
- Sub bottom profiler
- Magnetometer
- Sound velocity probes (SVP) & CTD sensors,
- Electronic tide gauges
- ADCP & Current meters
- Hydrographic data collection software
- Multibeam data processing software
- Paper , digital & ENC Charts producing software
- Physical & Chemical laboratories

3- New charts & updates:

ENCs

- Producing about 100 ENC cells (96 in Persian Gulf & Oman Sea + 4 in Caspian Sea)
- 5 charts under production

ENC Distribution Method

- An agreement in this regard had been signed with PRIMAR

RNCs

- Not applicable – Iranian charts production is mostly in vector format.

INT Charts

Following Iranian charts are according to INT chart scheme in the area "I".

- **National chart IR 3070** → **INT 7205**
- **National chart IR 3002** → **INT 7208**
- **National chart IR 3012** → **INT 7207**
- **National chart IR 3010** → **INT 7210**
- **National chart IR 3016** **INT 7237**
- **National chart IR 3017** → **INT 7305**
- **National chart IR 3021** → **INT 7306**
- **National chart IR 3031** → **INT 7205**
- **National chart IR 3040** → **INT 7240**
- **National chart IR 3043** → **INT 7304**
- **National chart IR 3074** → **INT 7307**
- **National chart IR 3051** → **INT 7299**
- **National chart IR 3052** → **INT 7298**
- **National chart IR 3060** **INT 7260**
- **National chart IR 5001** → **INT 7001**
- **National chart IR 5003** → **INT 7190**
- **National chart IR 3058** → **INT 7234**

National Paper Charts

- Up to 1979 : Oman Sea from Gowater Bay to Sirik - 10 charts
- 1989 – 1998 : Persian Gulf and Caspian Sea 26 paper charts
- 1998 – 2012 : In all Iranian Coastal water more than 2650 sheet
- 2013 :Under production : 60 sheets of paper charts

1-Digital Nautical Charts

Scale	Persian Gulf & Oman Sea		Caspian Sea	
	Completed charts	Undergone charts	Completed charts	Undergone charts
1:25000 & larger	2600	60	36	13
Between 1:25000 & 1:100000	27	-	1	-
1:100000 & smaller	37	1	7	-
Total	**2664**	**61**	**44**	**13**

2-Electronic Navigational Charts (ENC)

Persian Gulf & Oman Sea	Caspian Sea
96 charts	4 charts

3- International Charts (Int. charts)

Persian Gulf & Oman Sea 17 charts

4 -Tidal Observation

Permanent tidal stations	Temporary tidal stations
17	**60**

4- New publications & Updates and Future Planning:

New Publications and location of tidal Stations

- Tidal software and table 2013
- Tide prediction is available on this web site: (www.iranhydrography.org)

Tidal Observation:
Permanent tidal Stations: 17 Stations
Temporary tidal stations: 60 Stations
Some of permanent tidal Stations are indicated in following Table:

NO.	Places	Lat. (N)	Long. (E)	Establishment Date
1	KHORRAMSHAHR	30 25	48 12	2001
2	BANDAR-E EMAM KHOMEINI	30 26	49 05	2001
3	BANDAR-E EMAM HASAN	29 50	50 15	1989
4	JAZIREH-YE KHARK	29 16	50 20	2001
5	BANDAR-E BUSHEHR	28 59	50 50	1989
6	KANGAN	27 50	52 03	1989
7	BANDAR –E LENGEH	26 33	54 53	2004
8	BANDAR-E SHAHID RAJAEE	27 06	56 04	1990
9	JASK	25 39	57 46	1998
10	CHABAHAR	25 17	60 37	1995

Update publications

- All charts are updated.

Future Planning

- Harbor & Berthing chart will be produced
- Completion of approaches & coastal charts
- Development of tidal stations & current observations
- Coverage of real time accurate positioning

5- Maritime Safety Information (MSI):

Existing infrastructure for transmission:

PMO (Ports & Maritime Organization) of I. R. of Iran is in the national authority of Islamic Republic of Iran for collecting and dissemination coastal and local warnings in sub – region of NAVAREA IX.

Maritime Safety Information (MSI)

1- VTS Centers : established 3 stations (2 in Persian Gulf – 1 in Caspian Sea) are working in trial mode.
2- AIS Network: All Main Ports are equipped with AIS Network.

3- Coastal warnings: Coastal MSI are promulgated by national coordinator by means of WWNWS.
4- Local warnings: These warnings cover inshore and inland waters, often within the limits of jurisdiction of harbor or port authorities.
5- The present situations regarding to the promulgation of MSI originated by I.R. of Iran as follows:

a. Broadcast systems: VHF + NAVTEX

i. VHF

Local and coastal Navigation Warnings including Meteorological Warnings and forecasts are promulgated verbally for attention of local traffic and non conventional vessels which are not equipped to NAVTEX receiver.

ii. NAVTEX

I.R. of Iran operates three NAVTEX station to broadcast MSI, in BUSHEHR and Shahid RAJAEE Port in North part of the Persian Gulf. (Within NAVAREA IX) and Freydoonkenar Port in the Caspian Sea area.

b. NAVTEX in Persian Gulf and Gulf of OMAN:

i. Bandar Bushehr

Duration: 10 Min. Meteorological Information 0400, 1600
Coverage: 150 NM
Frequencies: 518 KHz for international services & 490 KHz for national services.
Transmitting hours for 518 KHz: 0000, 0400, 0800, 1200, 1600, 2000UTC
Transmitting hours for 490 KHz: 0030, 0430, 0830, 1230, 1630, 2030UTC

ii. Bandar Abbas

Duration: 10 Min. Meteorological Information 0450, 1650
Coverage: 150 NM
Frequencies: 518 KHz for international services & 490 KHz for national services.
Transmitting hours for 518 KHz: 0050, 0450, 0850, 1250, 1650, 2050UTC
Transmitting hours for 490 KHz: 0120, 0520, 0920, 1320, 1720, 2120UTC

c. Maritime Safety Information in Caspian Sea:

At present local and coastal navigational warnings are transmitted by VHF and a NAVTEX station in Freydoonkenar Port in the Caspian Sea

i. Bandar Freydoonkenar

Duration: 10 Min. Meteorological Information 0500, 1700
Coverage: 150 NM
Frequencies: 518 KHz for international services & 490 KHz for national services.
Transmitting hours for 518 KHz: 0100, 0500, 0900, 1300, 1700, 2100UTC
Transmitting hours for 490 KHz: 0130, 0530, 0930, 1330, 1730, 2130UTC

d. Type of messages transmitting by the NAVTEX stations:

i. Navigational Warnings
ii. Meteorological Warnings
iii. Meteorological Forecast
iv. Search & Rescue Information and parrot attack Warnings
v. Shooting Warnings

Trainings:

- Courses of hydrography & nautical cartography in NCC & NGO Academic Centers
- MSc. Courses of hydrography in Tehran University and Azad University in Tehran

6- IHO C-55: 29 Feb. 2013

Basic Data:

Maritime Nation / Area: Islamic Republic of Iran
Nation or Area code: IR
Region ID: AS
Nation or Area (N or A): N
Length of Coastline (Km): about 5700 Km (Including Estuaries and Islands)
Data for C-55 Edition No.: 5

Status of Hydrographic Surveys:

A1/A2 = % adequately surveyed 0-200m / >200m
B1/B2 = % requiring re-survey at larger scale or to modern standards 0-200m / >200m
C1/C2 = % which has never been systematically surveyed 0-200m / >200m

A1	A2	B1	B2	C1	C2
93	73	10	0	0	30

Status of Nautical Charting:

A = % covered by INT Charts, B = % covered by RNC, C = % covered by ENC

Offshore passage /Small			Landfall Coastal passage/Medium			Approaches Ports/Large		
A	B	C	A	B	C	A	B	C
80	80	20	95	95	70	90	80	90

Percentage of metric paper charts 100 Percentage of paper charts on a satellite datum 0

7- Capacity Building:

- MSc. Course of hydrography in Tehran University are available, also recently Azad University in Tehran has been established the same courses.
- Oceanography and Marine physics courses are being offered in Azad University in Tehran and Ahvaz branches.
- In addition, to promote technical hydrographic knowledge between RSAHC States short courses can be carry out in English, by Islamic Republic of Iran.

8- Oceanographic Activities

- Establishment of Sea Level Monitoring Net work of Persian Gulf, Oman Sea & Caspian Sea
- Current Metering
- Sea bed Classification
- Collecting physical and chemical parameters of the characteristics
- Modeling & Monitoring of coastal of I. R. of IRAN

9- Other activities

- Participate in IHO Conference and its other committees, subcommittees and working groups(recently we faced with some problems from inviting States)
- Receive collected meteorological data via Iran Meteorological Organization to enhance the safety of navigation through the Persian Gulf and Caspian Sea by the means of VHF and NAVTEX.
- Member of S23 Working group
- Establishment of MSDI Committee
- ICOPMAS Conference (bi-annual Session)

10- Conclusions

Iranian National Hydrographic Committee (IRNHC) is in charge of publishing the charts for Coastal and territorial waters of I. R. of Iran (the Persian Gulf, Oman Sea & Caspian Sea), INT charts will be published accordingly, and as a national coordinator of NAVAREA IX, (navigational warnings are timely promulgated in the area of jurisdiction).

All hydrographic surveying activities are within the requirements of IHO Standards.

ENC production also has been established and efforts are concentrated to produce ENCs for Coastal and territorial waters of I. R. of Iran (the Persian Gulf , Oman Sea & Caspian Sea), in the near future .

There are capabilities for providing all hydrographic services to other RSAHC Member States.

Thank you for your attention.