

ISLAMIC REPUBLIC OF IRAN

Ministry of Roads and Transportation



**Ports and Maritime Organization
(PMO)**

**National Report for the 4th ROPME Sea Area
Hydrographic Commission**

Final Version

**Sultanate of
Oman
21 and 22 March
2011**

Exclusive Summary

Background:

Iranian Hydrographic activities are organized by National Hydrographic Committee (NHC). Islamic Republic of Iran has become member of IHO Since 1961.

The objective of National Hydrographic Committee is to provide services to enhance the safety of navigation within Iranian coastal waters, territorial sea, EEZ and inland waters. The principal service is 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 National Hydrographic Committee is to ensure the provision of adequate and timely hydrographic information, international marine navigation and other 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, South Didar St., Shahid Haghani Highway, Vanak Sq. Tehran- IRAN	
Ministry of Roads and Transportation	Department of which the Hydrographic Officer is Part
Safety of Navigation, Hydrographic Survey, Notice to Mariners, Chart Production, ENC Production	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 Affairs Tel: +9821 8865 1116 Fax: +9821 8493 2675 E-mail: foroughi@pmo.ir	Name and Rank of Director or Head
2010 = 978,757 GT	Tonnage
€ 25,000,000	Total Budget
Mr. S. PARIZI Mr. M.H. MOSHIRI Mr. S.R. NOURBAKHSH Mr. R. RANJBAR	Staff employed- Hydrographers (Name and rank of managing staff)

Ms. A. MOJTAHEDI Ms. F. SALAMI Mr. A. MEMBARI Mr. H. RASOULI	Cartographers (Name and rank of managing staff)																		
Mr. M.H.KHODDAM MOHAMMADI Mr. M. BODAGHI Mr. A. PARHIZI	Administrators (Name and rank of managing staff)																		
126 Persons	Other staff																		
172 Sheet Digital Charts in CARIS format 60 Cells	No. of Paper Charts Published No. of ENC Charts produced																		
<table border="1"> <thead> <tr> <th>Displacement</th> <th>Date Launched</th> <th>Crew</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>2000</td> <td>16</td> </tr> <tr> <td>40</td> <td>2003</td> <td>5</td> </tr> <tr> <td>120</td> <td>2001</td> <td>15</td> </tr> <tr> <td>85</td> <td>2005</td> <td>15</td> </tr> <tr> <td>36</td> <td>2002 – 2005</td> <td>20</td> </tr> </tbody> </table>	Displacement	Date Launched	Crew	120	2000	16	40	2003	5	120	2001	15	85	2005	15	36	2002 – 2005	20	Surveying vessels/Aircraft
Displacement	Date Launched	Crew																	
120	2000	16																	
40	2003	5																	
120	2001	15																	
85	2005	15																	
36	2002 – 2005	20																	
<p>Ports and Maritime Organization (PMO) according to national law has responsibility of all maritime activities including :</p> <ol style="list-style-type: none"> 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. <p>By establishing National Hydrographic Committee (NHC) 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</p>	Other Information of interest																		
	IRAN ABNEGAR Hydro. vessel EKTESHAF NAYBAND PERSIAN GULF Dolphins 1-5 Metal Vessels (Abnegar 1) Fiber glass boats (Abnegar 2 & 3)																		



2-Surveys:

New Technologies and /or Equipment

- DGPS with Radio ability
- Motion sensors,
- Single beam echo sounders,
- Multibeam echo sounders
- Seabed classifier (Roxann)
 - Side Scan Sonar
 - Sub bottom profiler
 - Sound velocity probes (SVP) & CTD sensors,
 - Mechanical tide gauges, Electrical tide gauges & Electronic Seabed tide gauges, Bathythermograph sensors

3- New charts & updates:

ENCs

- Producing about 60 ENC cells (57 in Persian Gulf & Oman Sea + 3 in Caspian Sea)
- 10 charts under production

ENC Distribution Method

- Is under process

RNCs

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

INT Charts

Following Iranian charts are according to INT chart scheme in the area "I". Meanwhile it is decided to change method of national chart numbering. IR will be shown before chart numbers instead of PG.

- **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 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 Paper Charts

- Up to 1979 : Oman Sea from Gowater Bay to Syric Surveyed by 4 UK Vessels
- 1989 – 1998 : Producing 26 paper charts
- 1998 – 2011 : Producing more than 172 sheet
- 2011 :Under production : 37 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	84	26	32	11
Between 1:25000 & 1:100000	18	-	1	-
1:100000 & smaller	30	-	7	-
Total	132	26	40	11
2-Electronic Navigational Charts (ENC)				
Persian Gulf & Oman Sea			Caspian Sea	
57 charts			3 charts	
3- International Charts (Int. charts)				
Persian Gulf			10 charts	
4 -Tidal Observation				
Permanent tidal stations			Temporary tidal stations	
15			50	

4- New publications & Updates and Future Planning:

New Publications and location of tidal Stations

- Tide table 2011
- Tide prediction is available on this web site: (www.iranhydrography.org)

Tidal Observation:

Permanent tidal Stations: 15 Stations

Temporary tidal stations: 50 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 RAJAEI	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

- Hydrographic plans of 60 harbors in scale of 1:5000 & larger
- ENC production compatible with standards of S-57 & S-52
- Completion of approaches & coastal charts
- Development of tidal stations & current observations
- Coverage of real time accurate positioning

Means of delivery e.g. paper – digital

- Means of delivery are paper and digital form

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- Coastal warnings: Coastal MSI are promulgated by national coordinator by means of WNWNS.
- 2- Local warnings: These warnings cover inshore and inland waters, often within the limits of jurisdiction of harbor or port authorities.
- 3- 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 RAJAEI 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

Trainings:

- 1984 , 1985 & 1991: Courses of hydrography & nautical cartography in India
- 1984 & 1996 : Hydrography courses in Japan
- 2001 & 2004 : Hydrography and nautical cartography in Italy
- 2004 :ENC Production in U.K.
- Cooperation to establish MSc. Courses of hydrography in Tehran University and granting scholarship to 6 students for these courses.
- To promote the technical knowledge of hydrographic department staff, different courses have been conducted.

6- IHO C-55: 31 January 2010

Basic Data:

Maritime Nation / Area: Islamic Republic of Iran

Nation or Area code: IR

Region ID: AS

Nation or Area (N or A): N

EEZ (Sq. Km): 190.000

Length of Coastline (Km): 4049 Km

Data for C-55 Edition No.: 4

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
90	70	10	0	0	30

State 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:

Training received:

- 1984 , 1985 & 1991: Courses of hydrography & nautical cartography in India
- 1984 & 1996 : Hydrography courses in Japan
- 2001 & 2004 : Hydrography and nautical cartography in Italy
- 2004: ENC Production in U.K.
- Cooperation to establish MSc. Courses of hydrography in Tehran University and granting scholarship to 6 students for these courses.
- To promote the technical knowledge of hydrographic department staff, different courses are carried out.
- We had 2 delegation participate at the Capacity Building for the period 2009 -2011
- Marine Cartography Courses in Tehran (2009).
- Hydrographic Course in Bandar Shahid RAJAEI (2008) and all the expenses were paid by PMO.
- ENC Production Course in Tehran (2007). Offered:
- 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

- Tidal observation by 70 Stations along Persian Gulf, Oman Sea & Caspian Sea
- Current Metering
- Sea bed Classification
- Collecting physical and chemical parameters of the characteristics

9- Other activities

- Participate in IHO Conference and its other committees, subcommittees and working groups
- 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

10- Conclusions

National Hydrographic Committee (NHC), 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 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 Regional States.

Thank you for your attention.