

**ISLAMIC REPUBLIC OF IRAN**

**Ministry of Roads and Urban  
Development**



**Ports and Maritime Organization**  
**(PMO)**

**National Report to the 6<sup>th</sup> ROPME Sea Area  
Hydrographic Commission**

**Final Version**

**Abu Dhabi  
United Arab Emirates  
09 - 11 February 2014**

## **Executive Summary**

### **Background:**

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

The main task of Iranian 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 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**

<b>PORTS AND MARITIME ORGANIZATION (PMO)</b> <b>Directorate of Marine Operation and</b> <b>Maritime Safety</b> <b>No. 1 PMO Building, Shahidi St., Shahid Haghani Highway, Vanak Sq.</b> <b>Tehran- IRAN</b>	
<b>Department of which the Hydrographic Officer is Part</b>	Ministry of Roads and Urban Development
<b>Principal functions of the H.O.</b>	Safety of Navigation, Hydrographic Survey, Notice to Mariners, Chart Production, ENC Production MSI Services
<b>National Day</b>	11 February
<b>Telephone:</b> <b>Fax:</b> <b>E-mail of Contact Person:</b>	+9821 8865 1116 , +9821 84932143, +9821 84932152 +9821 8493 2675 <a href="mailto:aparhizi@pmo.ir">aparhizi@pmo.ir</a> & <a href="mailto:aph1360@gmail.com">aph1360@gmail.com</a> Ahmad PARHIZI <a href="mailto:Parizi@pmo.ir">Parizi@pmo.ir</a> Saeid PARIZI
<b>Date of establishment and Relevant National Legislation</b>	June 1961

<b>Name and Rank of Director or Head</b>	Mr. Siyamak SAHRAEE Director General of Marine Operation and Maritime Safety Tel: +9821 8865 1116 Fax: +9821 8493 2675 E-mail: sahraeisiamak@yahoo.com		
<b>Tonnage</b>	2014 = 5,500,000 GT		
<b>Total Budget</b>	30, 000 ,000 €		
<b>Staff employed- Hydrographers (Name and rank of managing staff)</b>	Mr. S. PARIZI Ms. A. MOJTAHEDI Mr. SH. GHAREDAGHI		
<b>Cartographers (Name and rank of managing staff)</b>	Mr. S.R. NOURBAKHS Mr. P. ZAREIAN Ms. A. SADEGHIAN Ms. M. ABDOL HOSSEIN Mr. R. RANJBAR Mr. E- KAZEMI		
<b>Administrators ( Name and rank of managing staff)</b>	MR. A. SOLTAN POUR Mr. J. VAHEDI Mr. A. PARHIZI  150 Persons		
<b>No. of Paper Charts Published</b>	2954 Sheet Digital Charts in CARIS format		
<b>No. of ENC Charts Produced</b>	239 Cells		
<b>Surveying vessels/Aircraft</b>	<b>Displacement</b>	<b>Date Launched</b>	<b>Crew</b>
IRAN ABNEGAR Hydro. vessel	200	2000	16
EKTESHAF	1288	1984	34
NAYBAND	1188	2001	36
PERSIAN GULF 85	935	2005	15
Dolphins 1-5	36	2001	3
AKAM	1311	1966	20
Metal Vessels (Abnegar 1)	9	2003	4
Fiber glass boats (Abnegar 2)	7	2008	4
<b>Other Information of interest</b>	Ports and Maritime Organization (PMO) according to national law has responsibility of all maritime activities including: 1- Maritime Safety and the Protection of Marine 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		

## **2. Hydrographic Surveys**

New Technologies and /or Equipment:

- DGPS with Radio ability
- Motion sensors,
- Single beam echo sounders,
- Multibeam echo sounders
- Seabed classificatory
- 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
- Monitoring maritime phenomenon
- Establishment of hydrographic model

## **3. New Charts & Updates**

### **ENCs**

- Producing about 139 ENC cells (135 in Persian Gulf & Oman Sea + 4 in Caspian Sea)
- 12 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 No.	INT Chart No.	Modification	Area	Titles on the Chart
IR 3002	7208	✓	Shahid Bahonar Port to Hormoz Island	Bandar-e Shahid Bahonar to Jazire-ye Hormoz
IR 3010	7210	✓	Qeshm Island to Hormoz & Larak Islands	Jazire-ye Qeshm to Jazayer-e Hormoz & Larak
IR 3012	7207	✓	Approaches to Shahid Bahonar & Shahid Rajaei Ports	Approaches to Bandar-e Shahid Bahonar and Bandar-e Shahid Rajai
IR 3016	7237	INT. No 7237 should be assigned.	Lengeh Port	Bandar-e Lengeh
IR 3017	7305	✓	Bushehr Port	Bushehr
IR 3021	<del>7306</del>	INT. No. is not correct, Should be assigned a new No.	Approaches to Genaveh Port	Approaches to Bandar-e Genaveh
IR 3031	7306	✓	Khark Island	Jazire-ye Kharg
IR 3040	7240	✓	Nayband Bay & Approaches to Port of Pars	Khalij-e Nayband and Approaches to Bandar-e Pars
<del>IR 3043</del>	<del>7304</del>	Withdrawn from the list of national Chart.	<del>Khark Island To Genaveh</del>	<del>Jazire-ye Khark to Ghavaneh</del>
<del>IR 3044</del>	<del>7307</del>	Withdrawn from the list of national Chart.	<del>Boushehr Port to Rostami Port</del>	<del>Bandar-E Bushehr to Bandar-E Rostami</del>
IR 3051	7299	(GB 1269), The Producer & Printer Nation is I.R. of IRAN.	Emam Khomeini Port Khowr-e- Musa Plan A: The Bar to Mahshahr Port Plan B: Emam Khomeini Port & Approach To Mahshahr Port Plan C: Mahshahr Port	Bandar-E Emam Khomeini Khowr-E Musa Plan A : The Bar to Bandar-E Mahshahr Plan B : Bandar Khommeyni and Approaches to Bandar-E Mahshahr Plan C : Bandar-E Mahshahr
IR 3052	7298	(GB 1268), The Producer & Printer Nation is I.R. of IRAN.	Khowr-e- Musa (Middle Part) Approach to Khowr-e- Musa Plan A: The Bar of Khowr-e- Musa	Khowr-e- Musa Middle Part Approaches to Khowr-E Musa Plan A : Khowr-E-Musa-The Bar
<del>IR 3058</del>	<del>7234</del>	Withdrawn from the list of national Charts.	<del>Lavan Island to Nakhilu</del>	<del>Jazire-ye Lavan to Nakhilu</del>
IR 3059	No INT No.	Should be assigned an INT No.	Approaches to Javadol Aemmeh Port	Approaches to Bandar-E Javadol Aemmeh
IR 3060	7260	(GB 2883), The Producer & Printer Nation is I.R. of IRAN.	Approaches to Kish Island	Jazire-ye Kish
IR 3070	<del>7205</del>	7306	Shahid Rajaei Port	Bandar-E Shahid Rajai
IR 3072	No INT No.	Should be assigned an INT No.	Bahregan to Oil Field to Emam Hassan	Bahregan Oil Field to Bandar-e Emam Hassan
IR 3073	7304	INT. No 7304 should be assigned.	Bandar-e Genaveh to Khark Island	Bandar-e Genaveh to Jazireh-ye Kharg
IR 3074	7307	INT. No 7307 should be assigned.	Boushehr Port to Rostami port	Bandar-e Bushehr to Bandar-e Rostami
IR 3075	No INT No.	Should be assigned an INT No.	Rostami to Kangan Oil Field	Bandar-e Rostami to Kangan Oil Field
IR 3076	No INT No.	Should be assigned an INT No.	Kangan Oil Field to Kangan	Kangan Oil Field to Kangan
IR 3077	No INT No.	Should be assigned an INT No.	Port of Pars to Tombak & Teben	Bandar-e Pars to Tombak & Teben
IR 3078	No INT No.	Should be assigned an INT No.	Javadol_Aemmeh to Lavan Island	Bandar-e Javadol_Aemmeh to Jazireh-ye Lavan
IR 3079	No INT No.	Should be assigned an INT No.	Kish Island to Hendurabi Island	Jazireh-ye Kish to Jazireh-ye Hendurabi
IR 3080	No INT No.	Should be assigned an INT No.	Lengeh Port to Siri Island	Bandar-e Lengeh to Jazireh-ye Siri
IR 3081	No INT No.	Should be assigned an INT No.	Tonb-e- Bozorg Island To Abu Musa Island	Jazireh-ye Tonb-e Bozorg to Jazireh-ye Abu Musa
IR 3082	No INT No.	Should be assigned an INT No.	Khuran & Qeshm Island (East Part)	Khuran & Jazireh-ye Qeshm (East Part)
IR 5001	<del>7001</del>	INT. No. is not correct, Should be assigned a new No.	Chabahar Bay (East Part)	Khalij-E Chabahar East Part
IR 5002	No INT No.	Should be assigned an INT No.	Chabahar Bay (West Part)	Khalij-E Chabahar Wes Part
IR 5003	7190	The Producer Nation is I.R. of IRAN.	Jask	Jask

## 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 – 2014: In all Iranian Coastal water more than 2954 sheet
- 2015: 16 sheets of paper charts are under production

<b>1-Digital Nautical Charts</b>				
<b>Scale</b>	<b>Persian Gulf &amp; Oman Sea</b>		<b>Caspian Sea</b>	
	Completed charts	Undergone charts	Completed charts	Undergone charts
1:25000 & larger	2604	64	36	13
Between 1:25000 & 1:100000	191	-	1	-
1:100000 & smaller	37	1	7	-
<b>Total</b>	<b>2832</b>	<b>65</b>	<b>44</b>	<b>13</b>
<b>2-Electronic Navigational Charts (ENC)</b>				
<b>Persian Gulf &amp; Oman Sea</b>			<b>Caspian Sea</b>	
<b>235 charts</b>			<b>4 charts</b>	
<b>3- International Charts (Int. charts)</b>				
<b>Persian Gulf &amp; Oman Sea</b>			<b>26 charts</b>	
<b>4 -Tidal Observation of Persian Gulf &amp; Oman sea</b>				
<b>Permanent tidal stations</b>			<b>Temporary tidal stations</b>	
<b>17</b>			<b>60</b>	
<b>5- Caspian Sea level Monitoring</b>				
<b>6 Station</b>				

#### **4. New publications & Updates and Future Planning**

##### **New Publications and location of tidal Stations**

- Tidal software and table 2015
- Tide prediction is available on this web site: ([www.iranhydrography.ncc.org.ir](http://www.iranhydrography.ncc.org.ir))

Tidal Observation:

Permanent tidal Stations: 17 Stations

Temporary tidal stations: 60 Stations

Some of permanent tidal Stations are indicated in following Table:

<b>NO.</b>	<b>Places</b>	<b>Lat. (N)</b>	<b>Long. (E)</b>	<b>Establishment Date</b>
<b>1</b>	<b>KHORRAMSHAHR</b>	<b>30 25</b>	<b>48 12</b>	<b>2001</b>
<b>2</b>	<b>BANDAR E EMAM KHOMENI</b>	<b>30 28</b>	<b>49 05</b>	<b>2001</b>
<b>3</b>	<b>BANDAR-E EMAM HASAN</b>	<b>29 50</b>	<b>50 15</b>	<b>1999</b>
<b>4</b>	<b>JAZIREH-YE KHARK</b>	<b>29 18</b>	<b>50 20</b>	<b>2001</b>
<b>5</b>	<b>BANDAR-E BUSHEHR</b>	<b>28 59</b>	<b>50 50</b>	<b>1999</b>
<b>6</b>	<b>KANGAN</b>	<b>27 50</b>	<b>52 03</b>	<b>1999</b>
<b>7</b>	<b>BANDAR -E LENGEH</b>	<b>26 33</b>	<b>54 53</b>	<b>2004</b>
<b>8</b>	<b>BANDAR-E SHAHID RAJAEI</b>	<b>27 06</b>	<b>56 04</b>	<b>1999</b>
<b>9</b>	<b>JASK</b>	<b>25 39</b>	<b>57 46</b>	<b>1999</b>
<b>10</b>	<b>CHABAHR</b>	<b>25 17</b>	<b>60 37</b>	<b>1995</b>

##### **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
- Producing MSL Model for Persian Gulf and Oman Sea
- Producing SST Model for Persian Gulf and Oman Sea
- Producing Marine Geoid for Persian Gulf and Oman Sea
- Producing Tidal Model for Persian Gulf and Oman Sea

#### **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.

- 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 is promulgated by national coordinator by means of WNWNS.
- 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 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
- 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. 2014

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	0	20	95	0	70	90	0	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
- 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.**