

**18<sup>th</sup> Meeting of the MBSHC  
25-27 September 2013, İstanbul**

**NATIONAL REPORT OF TURKEY**

1. **Hydrographic Office / Service:** General, including updates for the IHO Yearbook e.g. reorganization

*The first official Turkish Hydrographic Organization was established in 1909 under the name of Maritime Surveying and Navigation Office. The mission of the office originally was to organize and perpetuate lighthouses, publish notices to mariners and to provide the navigation instruments to the navy. In 1956, the office moved to its present location Çubuklu, and in addition to the current equipment, modern electronic, oceanographic, geophysical and lithographic tools have been acquired. The name of the department was changed in 1972 to the Turkish Navy-Office of Navigation, Hydrography and Oceanography (TN-ONHO) so as to signify three main functions.*

*Principle functions of the TN-ONHO are hydrographic surveys, production of paper and Electronic Navigation Charts (ENC), nautical publications, weekly Notices to Mariners, Radio Navigational Warnings, Oceanographic (physical, chemical, geological, biological) and geophysical surveys and studies. Supply and maintenance of charts and publications.*

*Captain (Phd) Erhan GEZGİN has been serving as the Director of TN-ONHO as of 31st of August, 2012.*

2. **Surveys:**

- a. New surveys:

*Hydrographic/Oceanographic surveys made by TN-ONHO since XVIIth MBSHC are listed below:*

<b>Year</b>	<b>Hydrographic</b>	<b>Oceanographic</b>
2011	24	5
2012	23	19
2013 (as of 18 Sep)	15	4

- b. New technologies and /or equipment :

*One Shallow Water Side-Scan Sonar System has been procured in 2013.*

- c. New ships :

*NtR*

- d. Problems encountered :

*NtR*

3. **New charts & updates:**

- a. ENCs :

*280 ENCs have been planned and produced for the area of responsibility of TN-ONHO. 257 of them are available (Figure-1).*

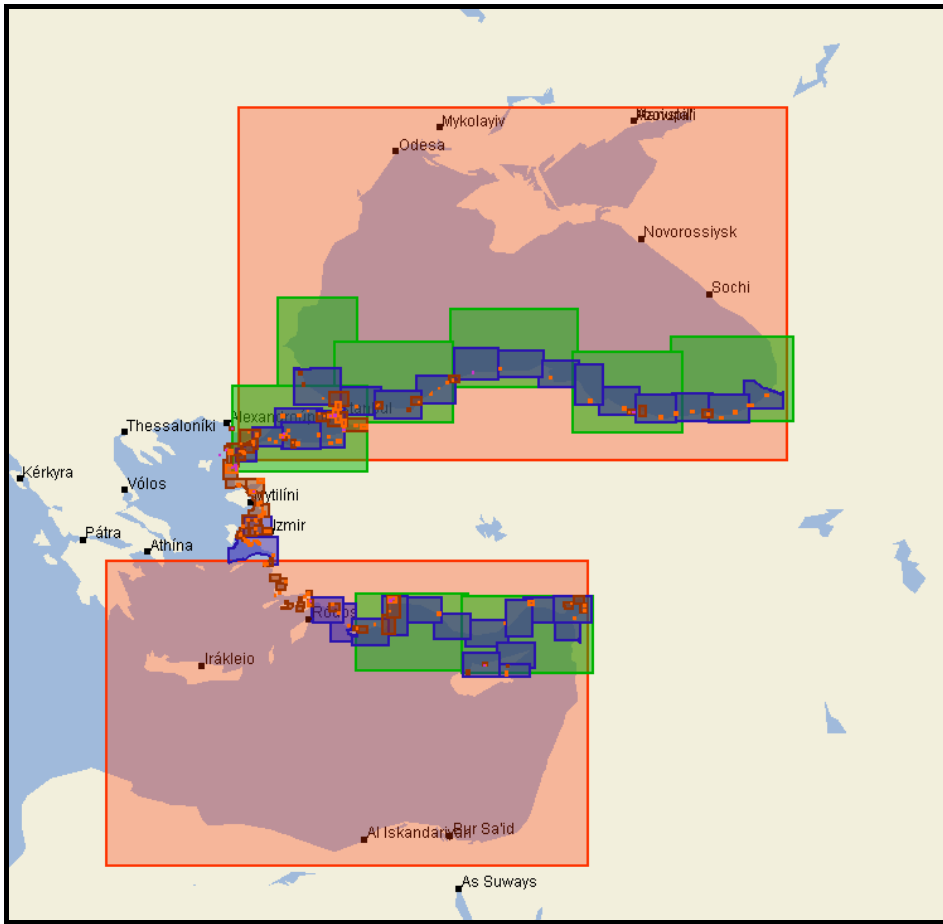


Figure-1  
Current Turkish ENC Coverage Status.

b. ENC Distribution method :

*Turkish ENCs are being distributed by IC-ENC, one of the RENCs.*

c. RNCs :

*TN-ONHO does not produce RNCs.*

d. INT Charts :

*(1) 8 new INT charts listed below proposed to be included in the MEDINTCHART scheme:*

INT No	Producer	National No	Date		Scale		Format
			Publication	N.edition	1:	Latitude	
	TR	291	1966	2003	50 000	41°00'N	A0
	TR	292	1967	2000	100 000	40°40'N	A0
	TR	293	1963	1998	100 000	40°40'N	A0
	TR	2926	2002	-	25 000	40°58'N	A0
	TR	213	1967	2000	100 000	38°00'N	A0
	TR	2147	1990	-	50 000	39°00'N	A0
	TR	2234	2009	-	25 000	37°52'N	A0
	TR	3343	2007	-	25 000	36°51'N	A0

*(2) 14 new edition of existing 25 INT charts have been issued since the XVIIth MBSHC. The list of those new editions are in article. 3.e.(2).*

e. National paper charts :

(1) 5 new paper charts listed below have been issued since XVIIth MBSHC:

<b>National No</b>	<b>Int No</b>	<b>Scale</b>	<b>Title</b>
1111		25.000	Approach to Şile Port
Plan A		5.000	Şile Port
1221		12.500	Approach to İnebolu Port
Plan A		5.000	İnebolu Port
2151		10.000	Approach to Nemrut Port
1312		25.000	Approach to Samsun Port
1432		12.500	Pazar – Ardeşen
Plan A		4.000	Pazar Fishing Harbour
Plan B		4.000	Ardeşen Fishing Harbour

(2) 59 new edition of the paper charts listed below have been issued since XVIIth MBSHC:

<b>National No</b>	<b>Int No</b>	<b>Scale</b>	<b>Title</b>
10	310	1.102.000	Blacksea
10B		750.000	West of Blacksea
15		400.000	Tuapse – Yatla
17		400.000	Mis Kinburn – Nos Kaliyakra
22B		300.000	Baba Cape – Kuşadası Gulf
29	3708	300.000	Marmara Sea
32	3600	300.000	Kaş – Anamur Cape
33	3602	300.000	Anamur Cape – Banyas
34		300.000	Cyprus Island
36		300.000	Hayfa – Bür Sa'id
111		100.000	İstanbul Strait – Kefken
141		100.000	Tirebolu – Trabzon
152		150.000	İdokopas Cape – Kerch Strait
154		150.000	Mehanom Cape – Khersones Cape
193		175.000	Taganrog Gulf
211		100.000	Gökçeada – Aleksandroupolis
212	3750	75.000	Çanakkale Strait
215		100.000	Dikili Gulf – İzmir Gulf
221	3784	75.000	İzmir Gulf
291		50.000	İzmit Gulf
294		100.000	Marmara Islands – İmralı Island
295	3752	75.000	Hoşköy – Gelibolu
311		100.000	Bodrum Channel – Marmaris
333	3656	100.000	İçek (Mersin) – Karataş Cape
334	3660	100.000	İskenderun Gulf
344		100.000	Aspro (White) Cape – Pyla (Pila) Cape
345		100.000	Aspro (White) Cape – Limniti Cape
1231		25.000	Approach to Sinop Port
1321		15.000	Approach to Ünye Port
Plan A		5.000	Ünye Port
Plan B		2.500	Ünye City Pier
1421			Blacksea Ports

Plan A		12.500	Approach to Sürmene Port
Plan B		12.500	Approach to Rize Port
1431		25.000	Approach to Hopa Port
Plan A		5.000	Hopa Port
1722		25.000	Köstence Port
1811	3758	50.000	Approach from North to İstanbul Strait
1822			Bulgaria – Romania Ports
Plan A		25.000	Varna
Plan B		7.500	Varna Port
Plan C		30.000	Sulina
Plan D		20.000	Mangalia
1911		50.000	Kerch Strait
2134		50.000	Anafartalar Bay – Tavşan Islands
2147		50.000	Çandarlı Gulf
2148		7.500	Ege Gaz and Total Oil Piers
2150		7.500	Aliağa Port
2211		25.000	North of Uzunada
2212	3785	25.000	Approach to İzmir Port
Plan A		12.500	Yenikale Channel
Plan B		10.000	İzmir
Plan C		10.000	İzmir Port
2213		25.000	Entrance to İzmir Gulf
Plan A		5.000	Urla Pier
2214		25.000	Gülbağçe Gulf
2215			Ports of İzmir Gulf and Eğriliman Channel
Plan A		12.500	Eğriliman
Plan B		25.000	Ormos Channel and Ormos Pahsa
Plan C		10.000	Karaburun
Plan D		5.000	Foça
2223		25.000	Gerence Gulf – Ildır Gulf
Plan A		12.500	Dalyanköy
2246		25.000	Kazıklı Port – Asin Gulf
2911		15.000	İzmit Port
2921	3756	30.000	İstanbul Strait
2921A		20.000	North of İstanbul Strait
2921B		20.000	South of İstanbul Strait
2927		7.500	Haydarpaşa Port – Salıpazarı Quay
2929		12.500	Anchorage of Southern Entrance of İstanbul Strait
3110		25.000	Bodrum Channel
3121		25.000	Approach to Marmaris Port
3122		25.000	Fethiye Gulf
Plan A		10.000	Göcek Port
3212		25.000	Ulu Cape – Geyikova Cape
3221	3653	25.000	Antalya
Plan A		5.000	Antalya Port
Plan B		2.500	Antalya Marina
3341		25.000	Yumurtalık Bay
Plan A		5.000	Yumurtalık
3342	3661	25.000	İskenderun - Yakacık

g. Problems encountered :

NtR

#### 4. **New publications & updates:**

a. New publications :

<b>Type</b>	<b>Title</b>
NP	Annual Notice to Mariners 2011
NP	Annual Notice to Mariners 2012
NP	Nautical Almanac 2012
NP	Nautical Almanac 2013

b. Updated publications :

<b>Type</b>	<b>Title</b>
NP	List of Lights and Fog Signals

c. Means of delivery :

*Publications are being delivered in paper form.*

d. Problems encountered :

NtR

#### 5. **MSI:**

a. Existing infrastructure for transmission :

*Turkey, with its four NAVTEX stations (İstanbul, Samsun, İzmir and Antalya) has been a reliable provider of Maritime Safety Information (MSI) since 1987. HF NBDP system has been used in Istanbul NAVTEX station in order to increase its coverage area. Modernization of NAVTEX stations and MF systems were accomplished in 2004, rendering these infrastructures capable for remote control from Istanbul Control Center.*

*MSI Services are provided on 7/24 basis. NAVTEX Stations are transmitting MSI warnings both in English and Turkish on 518 KHz and 490 KHz/4209,5 KHz respectively.*

*Other communication systems (VHF, MF and HF) are also available to promulgate MSI warnings if needed. Turkish Coastal Radio Stations broadcast instant warnings and 24-72 hours weather forecasts both in written and verbal on VHF, MF and HF bands.*

*Turkey has also fully implemented the distress and safety communication requirements of the GMDSS by establishing VHF-DSC system in 1995 and MF-HF-DSC system in 2004 and making possible HF-DSC ship-to-shore tests on 4,6,8,12,16 MHz bands for vessels on long range. Furthermore, modernization projects of these systems have also been accomplished.*

*The establishment of AIS Base stations along the entire Turkish coastline constitutes another major asset for ensuring maritime safety in surrounding seas.*

*TN-ONHO has been national coordinator for navigational warnings since 23 June 2010.*

*Number of Coastal and NAVAREA Warnings disseminated last three years by TN-ONHO listed below :*

<b>Year</b>	<b>NAVTEX</b>	<b>NAVAREA-III</b>
2011	877	178
2012	863	168
2013 (as of 18 Sep)	581	68

- b. New infrastructure in accordance with GMDSS :

*NtR*

- c. Master Plan :

*NtR*

- d. Problem Encountered :

*NtR*

**6. C-55:**

*Latest update is on 18 September 2013.*

**7. Capacity Building:**

- a. Offer of and/or demand for Capacity Building :

*NtR*

- b. Training received, needed, offered :

*(1) In the 1<sup>st</sup> of October 2011, TN-ONHO's "Turkish Navy Hydrographic Course" recognized Category-B level by FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC).*

*(2) The first round of the course was held in the period 05 November 2012-12 April 2013 with participation of 11 trainees (6 from Turkey, 3 from Azerbaijan and 2 from Turkmenistan).*

*(3) The second round of the course will be held in the period 11 November 2013-18 April 2014 with participation of 12 trainees (5 from Turkey, 2 from Azerbaijan, 2 from Turkmenistan, 2 from Kazakhstan and 1 from Albania expected. ).*

- c. Status of national, bilateral, multilateral or regional development projects with hydrographic component (In progress, planned, under evaluation or study):

*TN-ONHO has bilateral agreements with UKHO (UK), SHOM (FR), BSH (DE) and MHD (RO); and bilateral agreements with Russian Federation and Ukraine are under progress.*

- d. Definition of bids to IHO CBSC :

*NtR*

**8. Oceanographic activities:**

- a. General :

*Currently TN-ONHO has an active oceanographic branch that can conduct oceanographic, geological and geophysical surveys. Collected data is processed and used for navigational purposes. The equipment inventory can be found at TN-ONHO web site ([www.shodb.gov.tr](http://www.shodb.gov.tr)). TN-ONHO has a geology lab as well to analyze the sediment samples for particle size.*

*TN-ONHO provides operational environmental support to the end users recently.*

b. GEBCO/IBC's activities :

NtR

c. Tide gauge network :

*There are three tide gauges operated by TN-ONHO. They are located in the southern and northern entrances of the Istanbul Strait and one in the Golden Horn (an estuary in the European side of Istanbul). The locations of the gauges can be seen in Figure 2. They are leveled with respect to the National datum, and transmit the collected water level data in real time thru GPRS connection. Additional meteo data (ie. atmospheric pressure and wind) and some physical oceanographic data is collected at the tide gauges as well.*

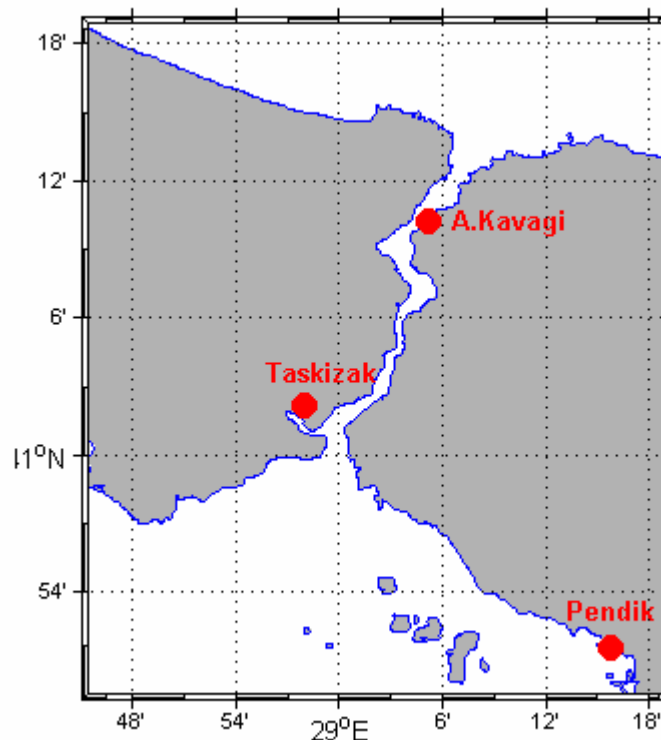


Figure-2

*The locations of the Mareograph stations in the Strait of Istanbul.*

b. New equipment :

*TN-ONHO has deployed three wave buoys in the surrounding seas to monitor the environmental conditions. The buoys are placed to Black Sea entrance of Istanbul Strait, entrance of Izmir Bay and Marmaris Bay. An automatic meteorological station is also placed to a land location near each wave buoy. All the METOC data is stored in a computer in the field and transmitted to TN-ONHO headquarters in real time.*

b. Problems encountered :

NtR

## 9. Other activities:

### a. Participation in IHO Working Groups:

*TN-ONHO has participated the following IHO events since XVIIth MBSHC Conference:*

- 3<sup>rd</sup> HSSC meeting (November 2011)
- 3<sup>rd</sup> WWNWS meeting (September 2011)
- 23<sup>rd</sup> TSMAD meeting (January 2012)
- 10<sup>th</sup> CBSC meeting (June 2012)
- 6<sup>th</sup> DQWG meeting (July 2012)
- 2<sup>nd</sup> WENDWG meeting (September 2012)
- 4<sup>th</sup> HSSC meeting (September 2012)
- 4<sup>th</sup> WWNWS meeting (September 2012)
- 9<sup>th</sup> CSPCWG meeting (November 2012)
- 25<sup>th</sup> TSMAD meeting (January 2013)
- 3<sup>rd</sup> WENDWG meeting (May 2013)
- 11<sup>th</sup> CBSC meeting (May 2013)
- 5<sup>th</sup> IRCC meeting (June 2013)
- 11<sup>th</sup> BASWG meeting (June 2013)

### b. Meteorological data collection :

*TN-ONHO has meteo stations on her survey ships and collects basic meteorological parameters. Meteorological atlases of the seas around Turkey have been published. As the data sets get bigger the atlases are renewed with latest statistical analysis.*

### c. Geospatial studies :

*The CORS-TR project is operational since 2009. With this project, Turkey is now covered with 147 fixed GPS stations which transmit RTK corrections to the GPS receivers via GSM line for geodetic surveys.*

### d. Disaster prevention :

*Turkey participates the Tsunami Warning System efforts conducted under the Intergovernmental Oceanographic Commission of UNESCO frame.*

### e. Environmental protection

*Ministry of Environment conducts long term monitoring activities around Turkish Coasts to monitor the physical, chemical, biological and environmental parameters. The purpose is to observe the current situation, to detect the possible changes, and to assist the decision makers in coastal zone management.*

### f. Astronomical observations

*NtR*

### g. Magnetic/Gravity surveys

*NtR*

### h. Other :

*Establishment of TSS and VTS are underway in the Izmit Bay, Izmir Bay, Iskenderun Bay, Mersin Harbour and the Aliaga/Nemrut Harbour in order to coordinate and control the vessel traffic and to improve the safety of navigation in accordance with national and international rules and regulations.*