

NATIONAL REPORT OF TURKEY
19th Meeting of the MBSHC, 30 June-02 July 2015, Batumi

1. Hydrographic Office / Service(General, including updates for the IHO Yearbook e.g. re-organization):

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*
- Paper Charts and Electronic Navigation Charts (ENC)*
- Nautical Publications*
- Weekly NtM Bulletin*
- Navigational Warnings*
- Military Geography and Operational Support for Navy (physical, chemical, geological, biological) and geophysical surveys and studies)*
- Charts and publications Supply*

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:

Year	Hydrographic	Oceanographic
2013	<i>15</i>	<i>8</i>
2014	<i>15</i>	<i>12</i>
2015 (as of 31 May)	<i>6</i>	<i>4</i>

b. New technologies and /or equipment:

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

c. New ships:

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d. Problems encountered:

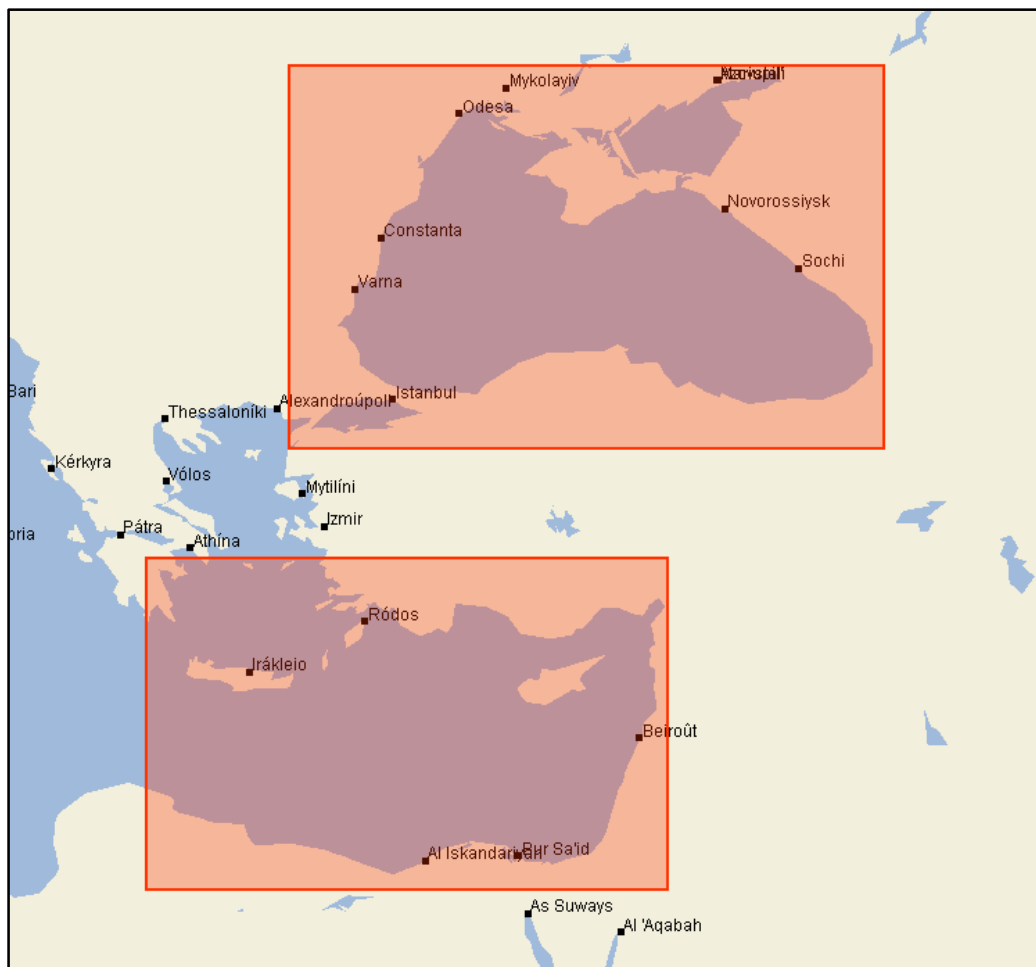
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3. New charts & updates:

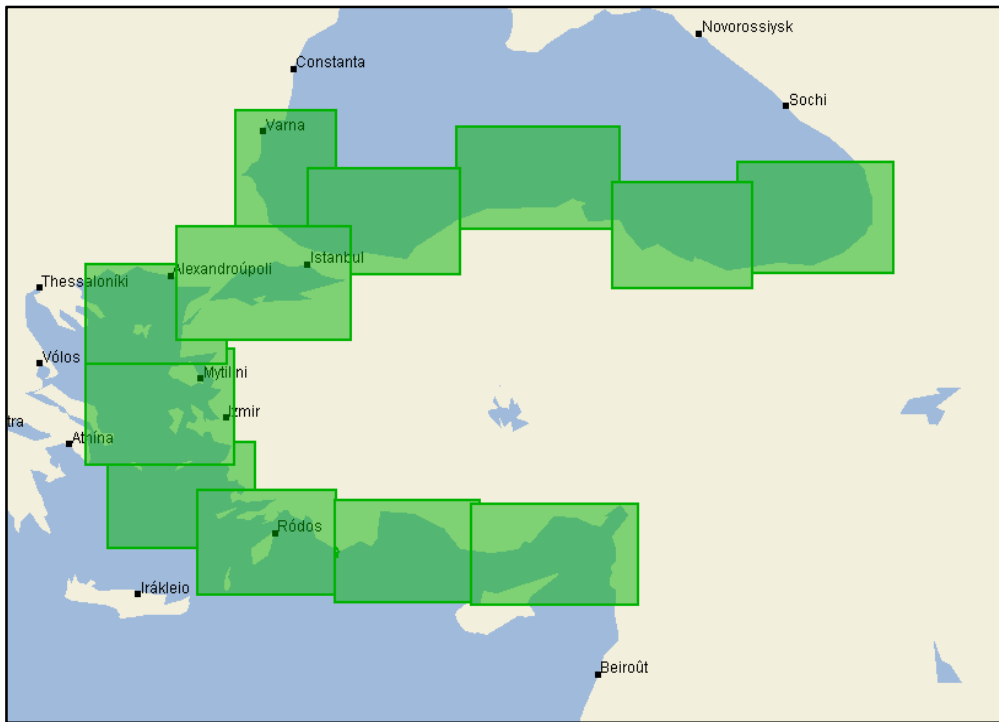
a. ENC's:

266 ENC's have been produced by Turkey.

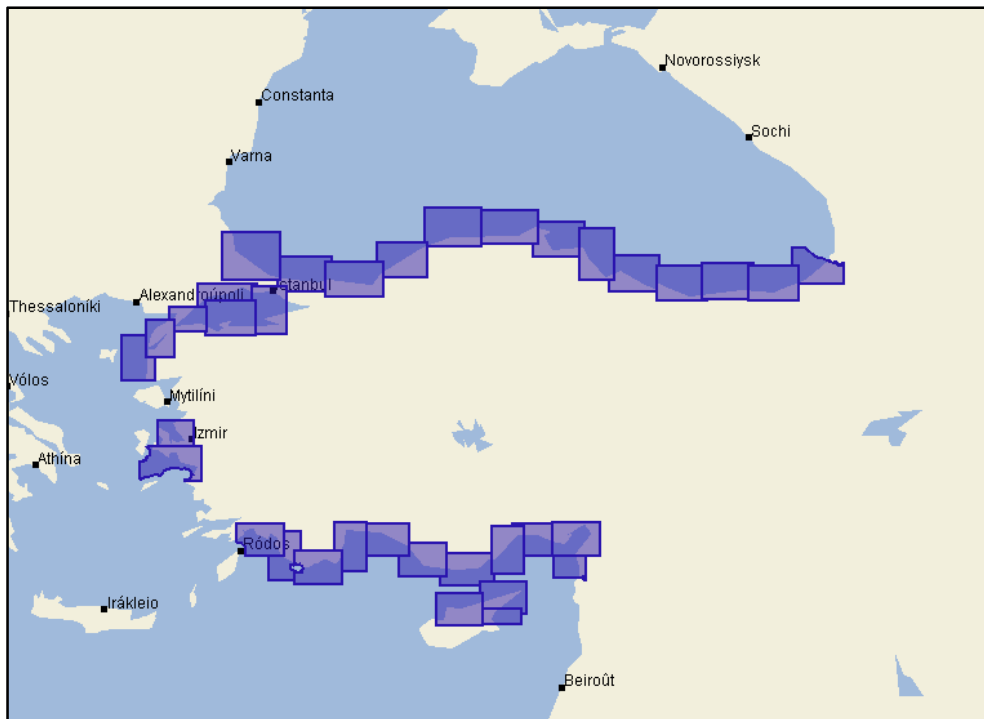
Usage Band	No of ENC's
1	2
2	12
3	35
4	70
5	110
6	37
Total	266



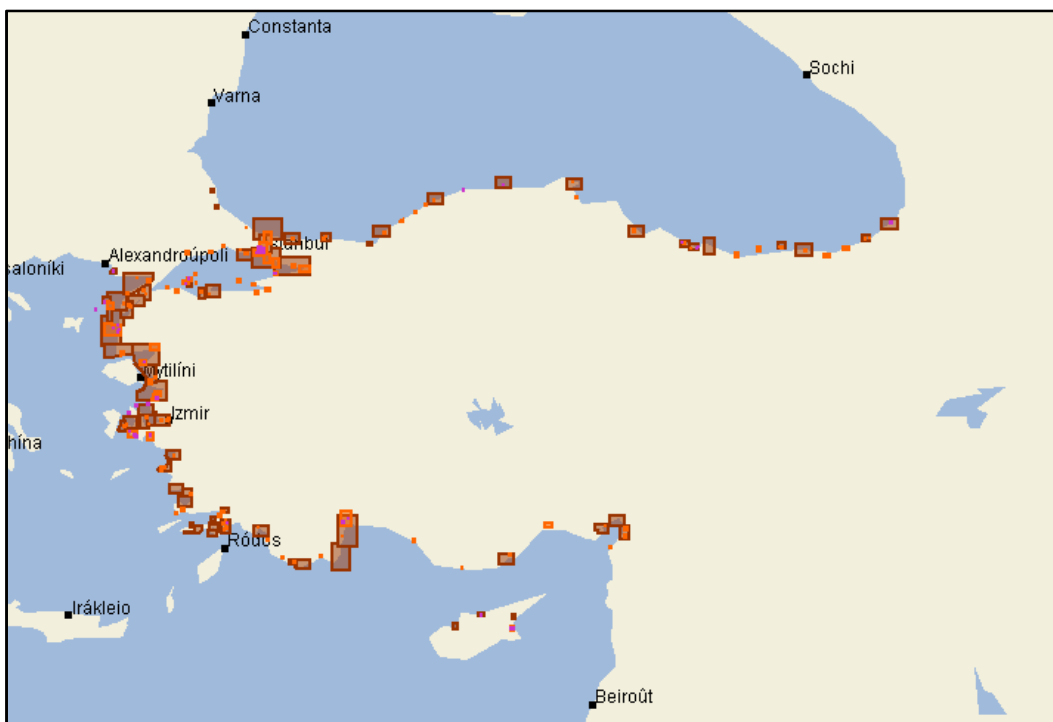
Turkish UB-1 ENC Coverage



Turkish UB-2 ENC Coverage



Turkish UB-3 ENC Coverage



Turkish UB-4,5,6ENC Coverage

b. ENC distribution method:

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

c. RNCs:

No RNC production.

d. INT Charts:

3 new edition of existing 28 INT charts have been issued since the XVIIIth MBSHC.

INT No	National No.	Scale	New Edition Date
3808	14	300,000	11/04/2015
3794	3343	25,000	09/05/2015
3757	2929	12,500	04/04/2015

e. National paper charts:

(1) 1 new chart has been issued since the XVIIIth MBSHC.

Chart No.	Scale	IssueDate
2943	25,000	27/12/2014

(2) 8 new edition charts have been issued since the XVIIIth MBSHC.

Chart No.	Scale	New Edition Date
312	100,000	09/05/2015
2144	50,000	04/04/2015
113	100,000	07/03/2015
342	100,000	13/12/2014
2922	Plans Chart	12/04/2014
2224	25,000	09/11/2013
142	100,000	21/09/2013
143	100,000	26/10/2013

g. Problems encountered:

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4. New publications & updates:

a. New publications:

No.	Type	Title
1	NP	<i>Annual Notice to Mariners 2014</i>
2	NP	<i>Annual Notice to Mariners 2015</i>
3	NP	<i>Nautical Almanac 2014</i>
4	NP	<i>Nautical Almanac 2015</i>
5	NP	<i>Ports Regulation</i>

b. Updated publications:

No.	Type	Title
1	NP	<i>Catalogue of Charts and Nautical Publications</i>
2	NP	<i>International Sea Buoyage System (A-B)</i>

c. Means of delivery:

Publications are being delivered in paper form.

d. Problems encountered :

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5. MSI:

a. Existing infrastructure for transmission:

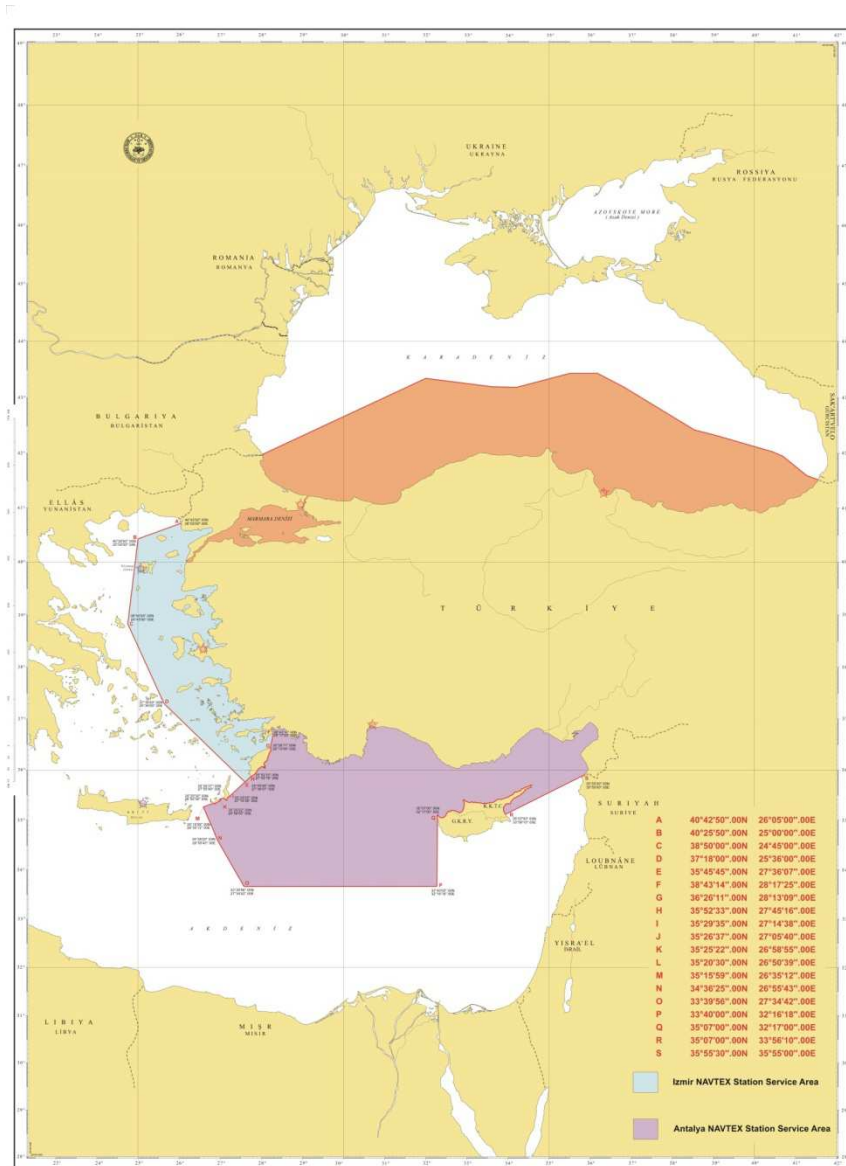
Turkey, with its four NAVTEX stations (İstanbul, Samsun, İzmir and Antalya) has been a reliable provider of Maritime Safety Information (MSI) since 1987. HF NBDP system has been used in Istanbul NAVTEX station in order to increase its coverage area. Modernization of NAVTEX stations and MF systems were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

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:

Year	NAVTEX Warnings	NAVAREA-III Warnings
2013	853	99
2014	1081	74
2015 (as of 31 May)	527	30



Turkish NAVTEX Service Areas

b. New infrastructure in accordance with GMDSS:

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c. Master Plan:

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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:

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b. Training received, needed, offered :

(1) In 2009 Middle East Technical University and in 2011 TN-ONHO's Hydrography Course CAT-B were recognized by FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC).

(2) Since last meeting one course in TN-ONHO and one course in Middle East Technical University were held. 10 officers from Turkmenistan followed the CAT B course in Middle East Technical University.

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:

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8. Oceanographic activities:

a. General :

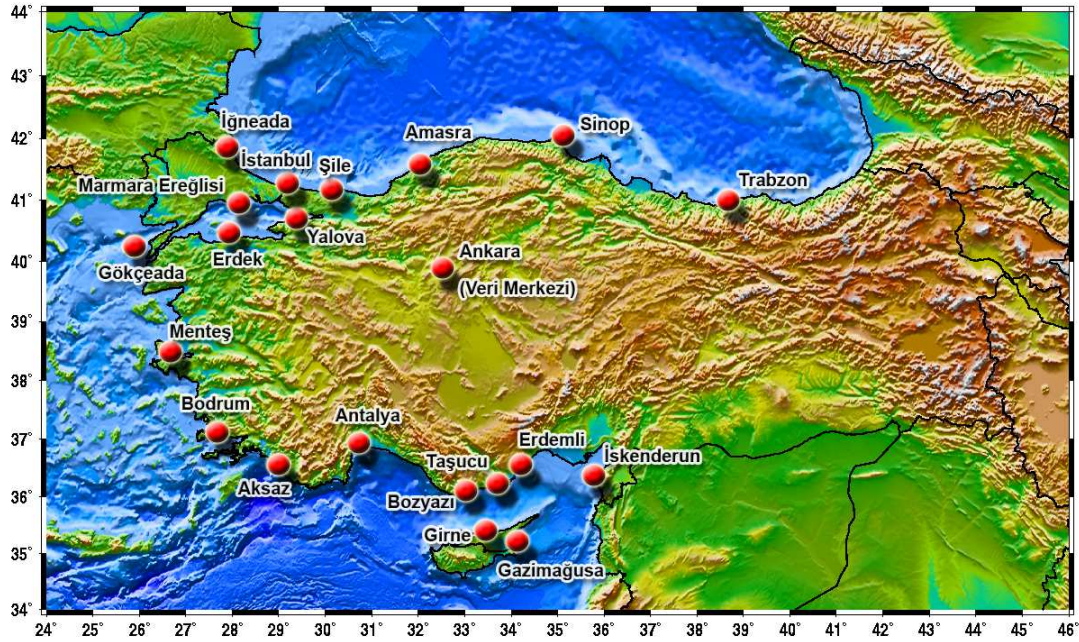
Currently TN-ONHO has an active oceanographic branch that can conduct oceanographic, geological and geophysical surveys. Collected data is processed and used for navigational purposes. TNONHO has a geology lab as well to analyze the sediment samples for particle size. TN-ONHO provides operational environmental support to the end users recently.

b. GEBCO/IBC's activities:

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c. Tide gauge network :

There are 20 tide gauges operated by General Mapping of Agency. The locations of the gauges can be seen below.



Since the last meeting there is a new project of fixed GNSS integrated RADAR level measuring tide gauge. One of them is established and in the test process.

b. New equipment :

Turkish Navy has a new survey vessel project. The new survey vessel will replace TCG ÇUBUKLU. Writing the technical specifications of the vessel is completed in 2015.

A new regional class research vessel TUBITAK MARMARA came into service in 2013 to support applied research projects in Turkish seas. The vessel owned by the Scientific and Technological Research Council of Turkey (TÜBİTAK) and operated by its newly established Marine Research Center for oceanographic research studies. She was designed, developed and built in Turkey within one year to a cost of ₺13.8 million.

The detailed information can be found in <http://ctue.mam.tubitak.gov.tr/en/rv-tubitak-marmara> .



b. Problems encountered :

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9. Other activities:

a. Participation in IHO Working Groups:

TN-ONHO has participated in the following IHO events since XVIIIth MBSHC meeting:

- WWNWS-5 meeting (October 2013)
- HSSC-5 meeting (November 2013)
- CBSC-12 meeting (May 2014)
- IRCC-6 meeting (May 2014)
- BASWG-12 meeting (June 2014)
- HSSC-6 meeting (November 2014)
- WENDWG-5 meeting (March 2015)
- CBSC-13 meeting (May 2015)
- IRCC-7 meeting (June 2015)

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 datasets get bigger the atlases are renewed with latest statistical analysis.

c. Geospatial studies:

Chart Display and Information System (DEHABSUS) has been established in March 2015. DEHABSUS is a "google earth" like GIS displaying charts, vector Layers, navigational warnings and other geospatial data on a 3D globe. By the time being, it is open only to military users.

d. Disaster prevention :

Turkey participates in the Tsunami Warning System efforts conducted under the Intergovernmental Oceanographic Commission (IOC) of UNESCO frame. Kandilli Observatory and Earthquake Research Institute (KOERI) provides online 7 sea level stations (Sinop, Marmara Ereğlisi, Gökçeada, Bodrum, Taşucu, Erdemli and İskenderun) data to IOC under the NEAMTWS project.

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

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g. Magnetic/Gravity surveys

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h. Other :

TSS was established in the Bay of Izmit, Bay of Izmir, Bay of Iskenderun and the Aliğa/Nemrut Harbour.