

# HELLENIC NAVY HYDROGRAPHIC SERVICE



**19<sup>th</sup> Meeting of Mediterranean and Black Seas Hydrographic Commission (MBSHC)**

## NATIONAL REPORT OF GREECE

**30 June - 2 July 2015  
Batumi, Georgia**

## 1. Hydrographic Service:

### General

The Hellenic Navy Hydrographic Service (HNHS) is the governmental body of the Hellenic Republic responsible for conducting hydrographic and oceanographic surveys for the benefit of International and National Navigation as well as for the operational needs of the Hellenic Navy. The primary purpose of conducting hydrographic surveys is to produce and update nautical charts and other nautical publications aiming at the safety of life at sea and the protection of the environment around Greece.

## 2. Surveys

### 2.1 Coverage of new surveys

During the period 2013-2014, an extensive systematic program of surveys was conducted. The three hydrographic vessels of the HNHS had been working for 414 days on surveying operations. A total area of 20.847,36 km<sup>2</sup> has been surveyed, covering national and international waters in the Aegean and Ionian seas. The main 2013-14 operations are depicted in Annex A.

### 2.2 New technologies - Marine GIS

After the implementation of a pilot project (2009-2011), a Marine GIS has been established for the centralized management of HNHS cartographic data, the automation of production and the synchronization of the products.

## 3. New charts and updates

During the last two years the cartographic program of HNHS was further continued with the production of new ENC's, updates and national and international paper charts. More specifically the HNHS cartographic production status is the following:

### 3.1 ENC's

To date 286 ENC's have been released. The ENC's are updated on a monthly basis. The present status of the HNHS ENC production program is shown in the following table:

Scale Category	Released ENCs	Target	Coverage %
1. Overview	1	1	100.00%
2. General	2	2	100.00%
3. Coastal	83	83	100.00%
4. Approach	21	32	65.63%
5. Harbour	37	45	82.22%
6. Berthing	147	169	86.98%
	<b>291</b>	<b>332</b>	<b>87.65%</b>

Charts presenting the Usage Bands coverage are attached at Annex B.

### 3.1.1. ENC distribution method

HNHS distributes its ENCs via IC-ENC where is a member.

### 3.3 National paper charts

The following paper charts have been published. The datum in all charts is WGS84.

MAP#	CHART#	TITLE	AREA	SCALE 1:
231/1	231/1	Approaches and Harbour of Aígio	Aígio	12000
	231/1A	AígioHarbour		2500
311/2	311/2	Approaches NeaMoudaniaHarbour and NeaPotidaia Canal	Thermaikos Gulf	15000
	311/2A	NeaMoudaniaHarbour		2500
	311/2B	NeaPotidaia Canal		2500
321.00	321	Srymonikos Gulf to Limnos I.	Thrakiko Sea	150000
422/2	422/2A	Samos Strait	Samos I.	50000
	422/2A1	Vathy Bay and Samos Harbour		5000
	422/2A2	PythagoreioHarbour and marina		5000
	422/2B	KarlovasiHarbour		5000
	422/2Γ	MarathokamposHarbour		5000
433/2	433/2	Approaches and Harbour of Rethymno	Kriti I.	12000
	433/2A	RehymnoHarbour		2500
451/1	451/1	Lakki Bay	Leros I.	7500
	451/1A	LakkiHarbour Marinas Lakki and Temenia		2500

A diagram of the new paper charts is attached at Annex C.

## 4. New publications & updates

### 4.1 New publications

Catalogue of Nautical Charts and Nautical Publications, Edition 15<sup>th</sup> 2014

Greek Pilot vol. A´ - Greek version - Edition 2015

Greek List of Lights – Edition 2015

Greek Pilot vol. A´ - English version – Edition 2015

### 4.2 Updated publications

Greek Pilot vol. B´ - Supplement No 6/2015

All publications are available at HNHS website [www.hnhs.gr](http://www.hnhs.gr), HNHS selling offices or through associated companies/ shops.

## **5. MSI**

### **5.1 Existing infrastructure for transmission**

HNHS is the National Coordinator for the areas covering Greek and adjacent seas (which is belonging to NAVAREA III) and collects all the relevant Maritime Safety Information (MSI) which ocean-going vessels require for (their) safe navigation. For this purpose, it collects and elaborates all the relevant navigational, meteorological and other safety and urgent information, forming the corresponding NAVTEX bulletins. These bulletins are forwarded, in English and in Greek language, to the three Hellenic NAVTEX Stations (IRAKLEIO – KERKYRA - LIMNOS), for further promulgation.

On 16<sup>th</sup> September 2009, HNHS National Coordinator authority, as part of the NAVTEX service (GMDSS – Application), informed NAVAREA III Coordinator about its intention to establish a National NAVTEX Service, broadcasting MSI by means of NBDP via our existing NAVTEX stations on International adopted FRQ 490 KHz and 4209,5 KHz using Greek language.

On 24<sup>th</sup> Dec 2014 HNHS informed NAVAREA III and IMO NAVTEX Coordinating Panel that GREECE announces full operation on NATIONAL NAVTEX Service on FRQ 4209,5 KHz from IRAKLEIO NAVTEX Station [S] using Greek language.

In the last two years (2014 - 2015) a total of 28 Navigational Warnings (NAVHELLEN) were delivered to the NAVAREA III Coordinator for further promulgation.

#### **5.1.1 IRAKLEIO NAVTEX STATION [H] – [Q] – [S]**

During its operation in 2014 and 2015 a total of 7290 NAVTEX bulletins have been transmitted, containing 1486 Navigational warnings (NAVWARNS), 3015 Meteorological – Forecasts, 706 Meteorological warnings (GALEWARNS) and 41 Search and Rescue messages (SARWARNS).

#### **5.1.2 KERKYRA NAVTEX STATION [K] – [P]**

During its operation in 2014 - 2015 a total of 6366 NAVTEX bulletins have been transmitted, containing 557 Navigational warnings (NAVWARNS), 3015 Meteorological – Forecasts, 490 Meteorological warnings (GALEWARNS) and 7 Search and Rescue messages (SARWARNS).

#### **5.1.3 LIMNOS NAVTEX STATION [L] – [R]**

During its operation in 2014 and 2015 a total of 6497 NAVTEX bulletins have been transmitted, containing 834 Navigational warnings (NAVWARNS), 3015 Meteorological – Forecasts, 492 Meteorological warnings (GALEWARNS) and 12 Search and Rescue messages (SARWARNS).

Annex D describes the HELLENIC NAVTEX STATIONS SERVICE AREAS.

## **6. C-55**

2015 update as follows:

1.1 Status of hydrographic survey of all navigable waters, including internal waters, out to the limits of the EEZ: (Please refer to the guidance given in the introductory text “Analysis of the Status of Surveys”.)

Survey coverage, where:

A = percentage which is adequately surveyed.

B = percentage which requires re-survey at larger scale or to modern standards.

C = percentage which has never been systematically surveyed.

	A	B	C
Depths < 200m	<b>36</b>	<b>55</b>	<b>9</b>
Depths > 200m	<b>11</b>	<b>60</b>	<b>29</b>

## 2.1 Status of nautical charting within the limits of the EEZ

Coverage of charts published by your organisation, where:

A = percentage covered by INT series, or a paper chart series meeting the standards in M-4.

B = percentage covered by Raster Navigational Charts (RNCs) meeting the standards in S-61.

C = percentage covered by ENC's meeting the standards in S-57.

Purpose/Scale	A	B	C
Offshore passage/Small	-	-	<b>100</b>
Landfall and Coastal passage/Medium	<b>100</b>	-	<b>100</b>
Approaches and Ports/Large	<b>95</b>	-	<b>83</b>
Percentage of Group A showing depths in metres	<b>100</b>		
Percentage of Group A referenced to a satellite datum			

## 7. **Capacity Building**

HNHS personnel joined in July 2014 an IHO Technical Visit Team, with the aim to provide Capacity Building services to Israel.

### 7.1 **Domestic training**

HNHS personnel has been trained in various ENC production issues and Quality Control procedures.

### 7.2 **Foreign training**

HNHS personnel attended the following training courses:

- ENC Validation Training Course (IC-ENC)
- Hydrographic Data Processing and Marine Cartography (UKHO)
- ENC production using DKART s/w (Jeppessen)

### 7.3 **Status of national, bilateral, multilateral or regional development projects with hydrographic component**

HNHS has signed bilateral arrangements with the HOs of Slovenia, Cyprus, Georgia, Romania, Germany, Italy, Jordan, Korea, Norway, Russia, Serbia, Slovenia, Tunisia, UK, Ukraine, Bulgaria and USA. Discussions are in progress with Bulgaria, Croatia, Egypt, France and Israel.

In 2014, HNHS took part in a consortium consisting of fifteen European HOs plus academia partners to bid the Coastal Mapping project (MARE/2014/10) tender. The acceptance of this bid is still pending.

## **8. Oceanographic Activities**

### **8.1 General**

The mission of the HNHS in the area of Oceanography includes:

- Conducting oceanographic surveys in the Hellenic seas and the Eastern Mediterranean Sea and embodying the results into relevant studies.
- Supporting the Greek Navy and other national defense bodies by providing the required data and information for the tactical exploitation of the marine environment.
- Supplying oceanographic data and conduction of surveys on behalf of third parties both from the private and public sector.
- Prediction of the wave field in Greek waters.

### **8.2 Activities**

- Oceanographic cruises using the HNHS hydrographic/oceanographic vessels for the assessment of the marine environment including the acquisition of physical and geological data along a network of sampling stations designed for the areas of interest to the Hellenic Navy. All data and information gathered is processed and used in order to support naval operations in relation to anti-submarine, mine and amphibious warfare.
- Continuous measurement of sea level with tide gauges in a network of 22 permanent stations, located at several Greek ports around the coastline of Aegean and Ionian Seas. Three stations have been upgraded to output the data in digitized form, in order to be able to transmit in real time. One new station has been established.
- Prediction of the wave field based on the prevailing wind speeds and directions in a specific area in order to provide the Ministry of Mercantile Marine with information to assess the navigational conditions for specific vessel types in different areas.

The HNHS tide gauge network is depicted in Annex E.

## **9. Other activities**

### **9.1 Participation in IHO Working Groups**

HNHS participates in the following IHO Commissions, Committees, Sub-Committees and Working Groups: IRCC, HSSC, MBSHC, HCA, WWNWS, CSPCWG, LAWG, TSMAD.

### **9.2 Disaster prevention**

Following the decision of IOC / UNESCO to develop a Regional Tsunami Warning Center (RTWC) at the Northeastern Atlantic, Mediterranean and Connected Seas area, Greece has started working on the creation of a National Tsunami Warning Center (NTWC). A number of National Agencies and Institutions contribute to this effort under the supervision of the Seismological Institute of the National Observatory of Athens.

### **9.3 Environmental protection**

HNHS in cooperation with other national organizations is responsible for the collection of any new mammal observation data in order to update the existed database.

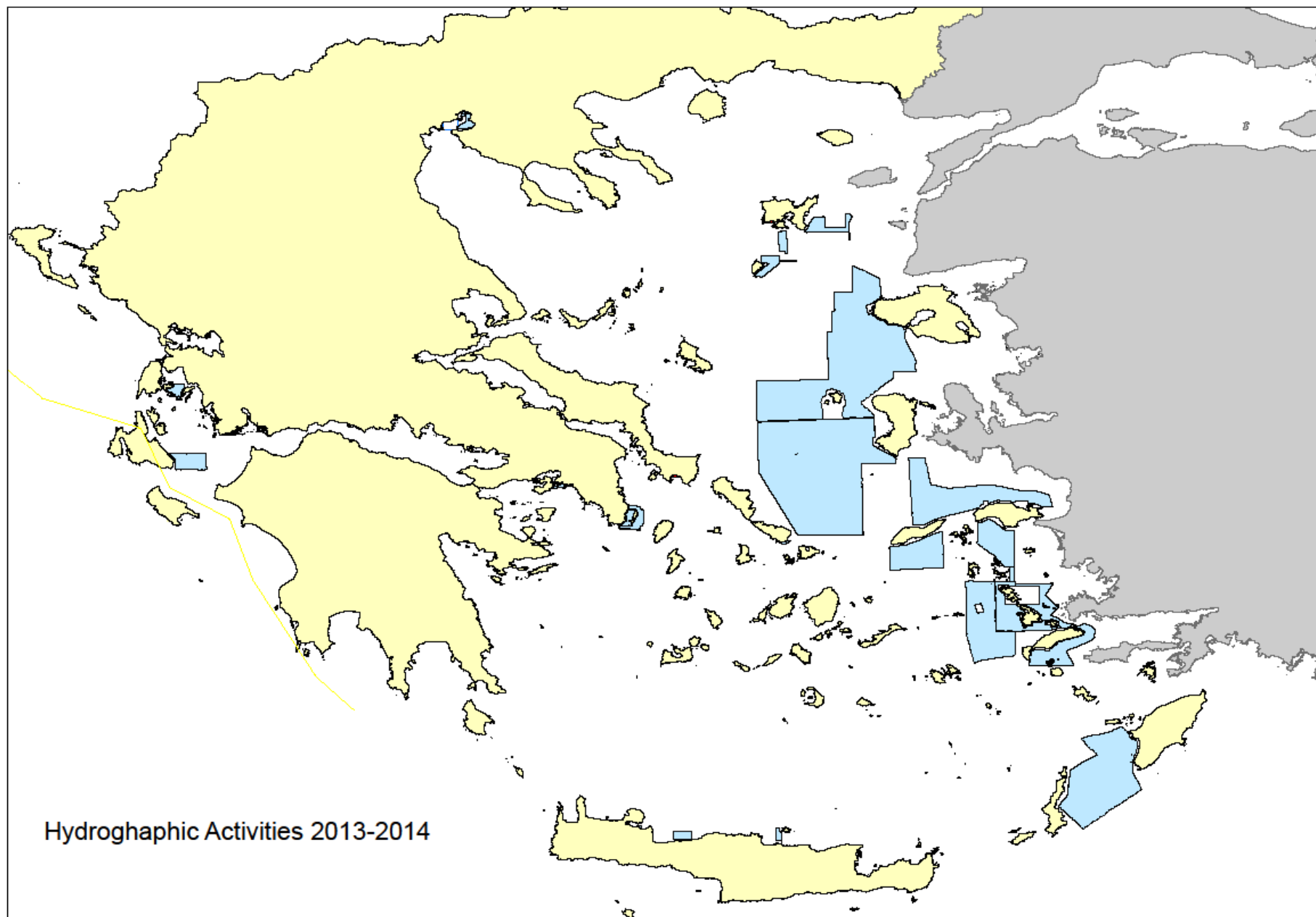
#### **9.4 National SDI**

HNHS participates in the national SDI of Greece, which was established in 2010 under the Environmental Ministry, contributing mainly with bathymetric data.

#### **10. Conclusions**

HNHS invests in people and utilise modern tools to keep its rate of growth steadily ascending for the sake of the safety of Navigation.

### Hydrographic Activities 2013-2014





## Usage Band 1 Coverage



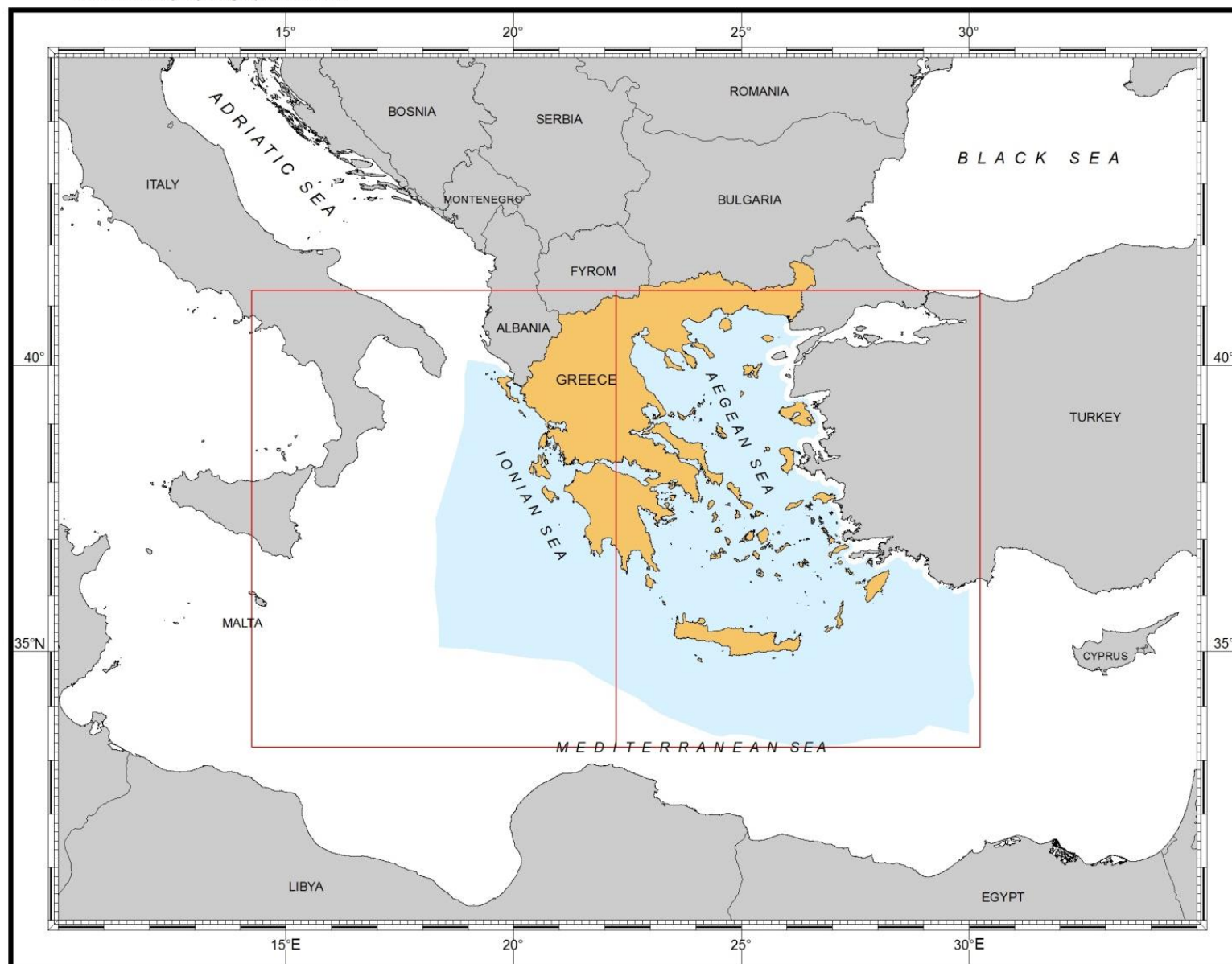
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### Overview



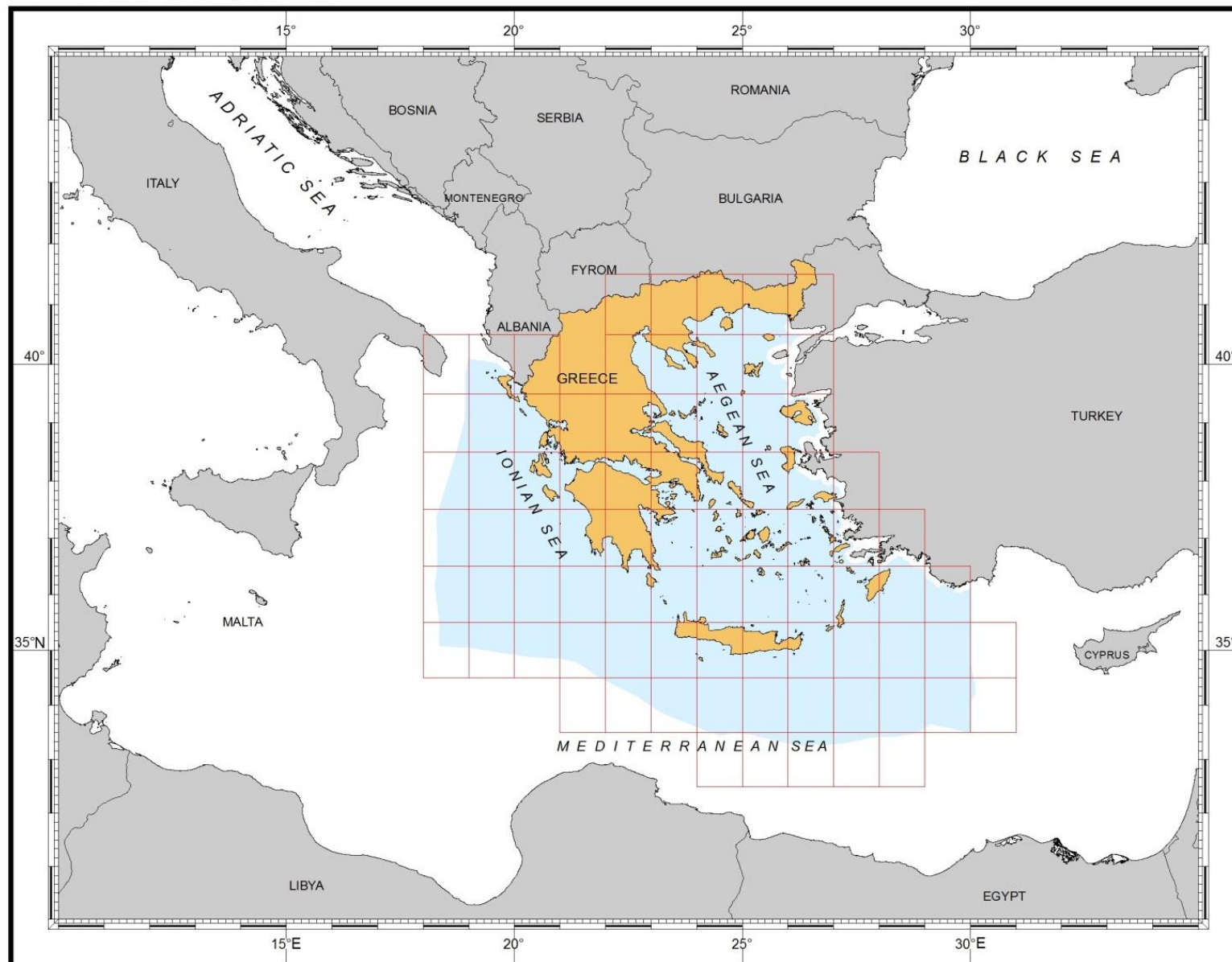
**Usage Band 2 Coverage**

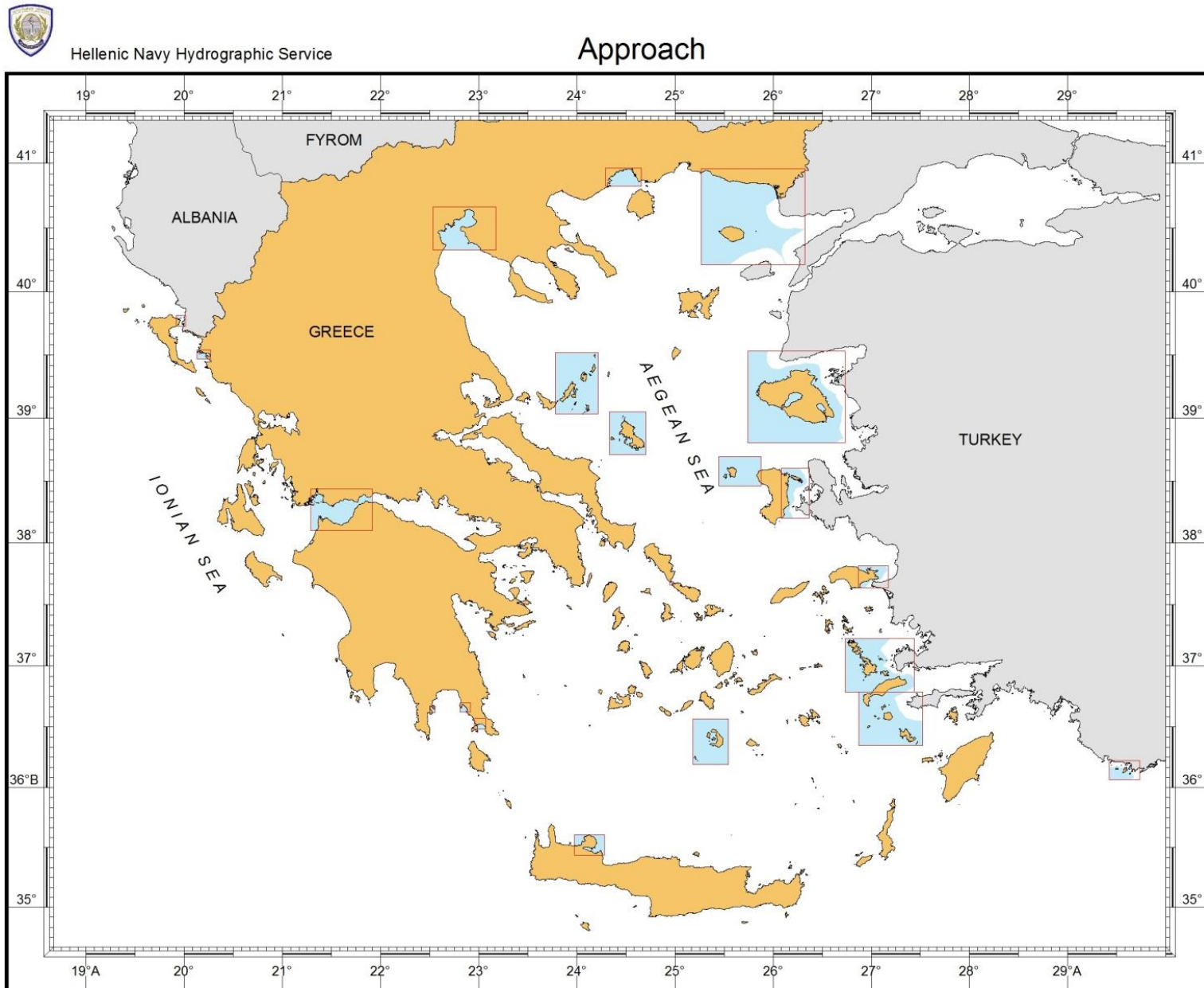
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**General**

**Usage Band 3 Coverage**

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**Coastal**

**Usage Band 4 Coverage**

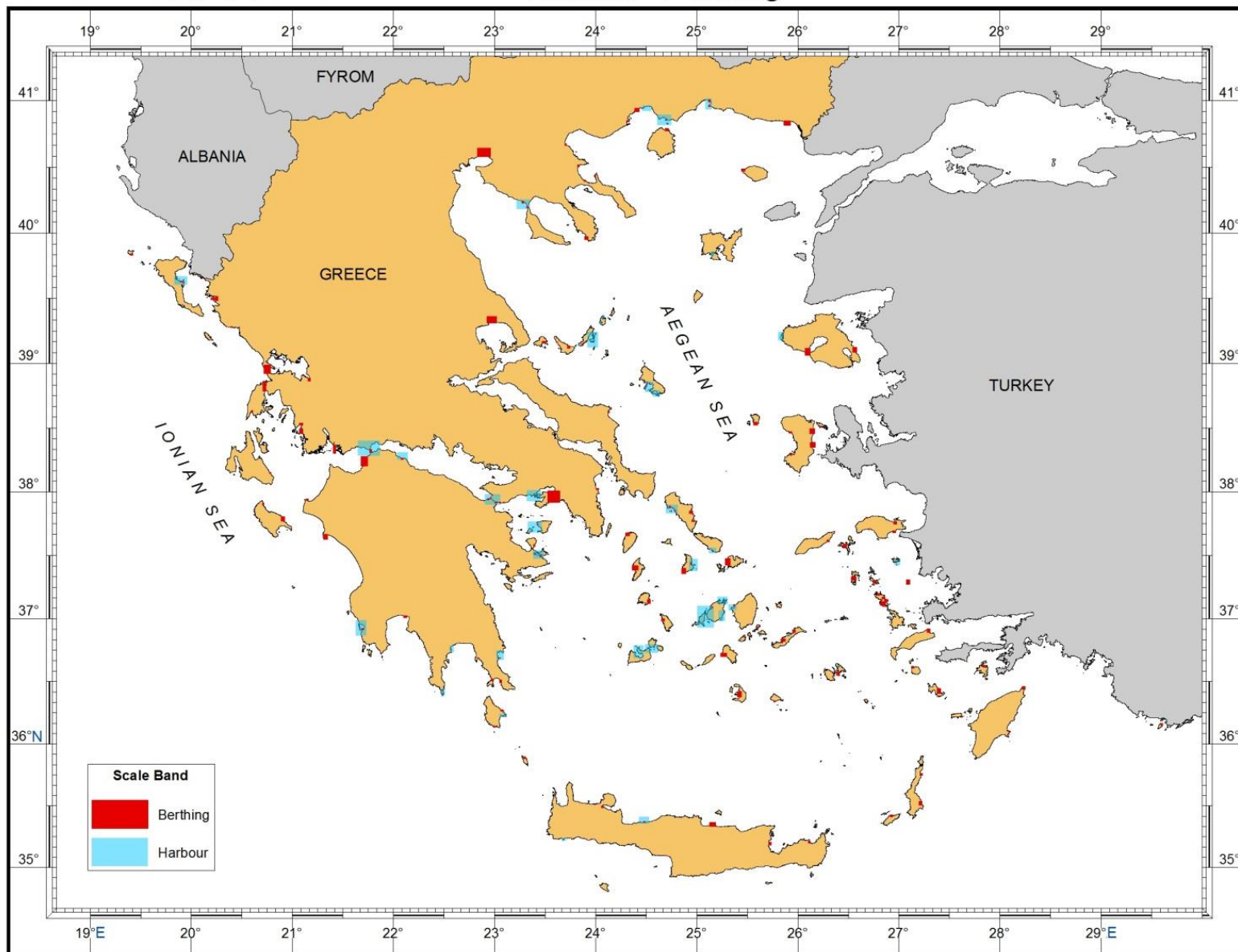


## Usage Band 5,6 Coverage

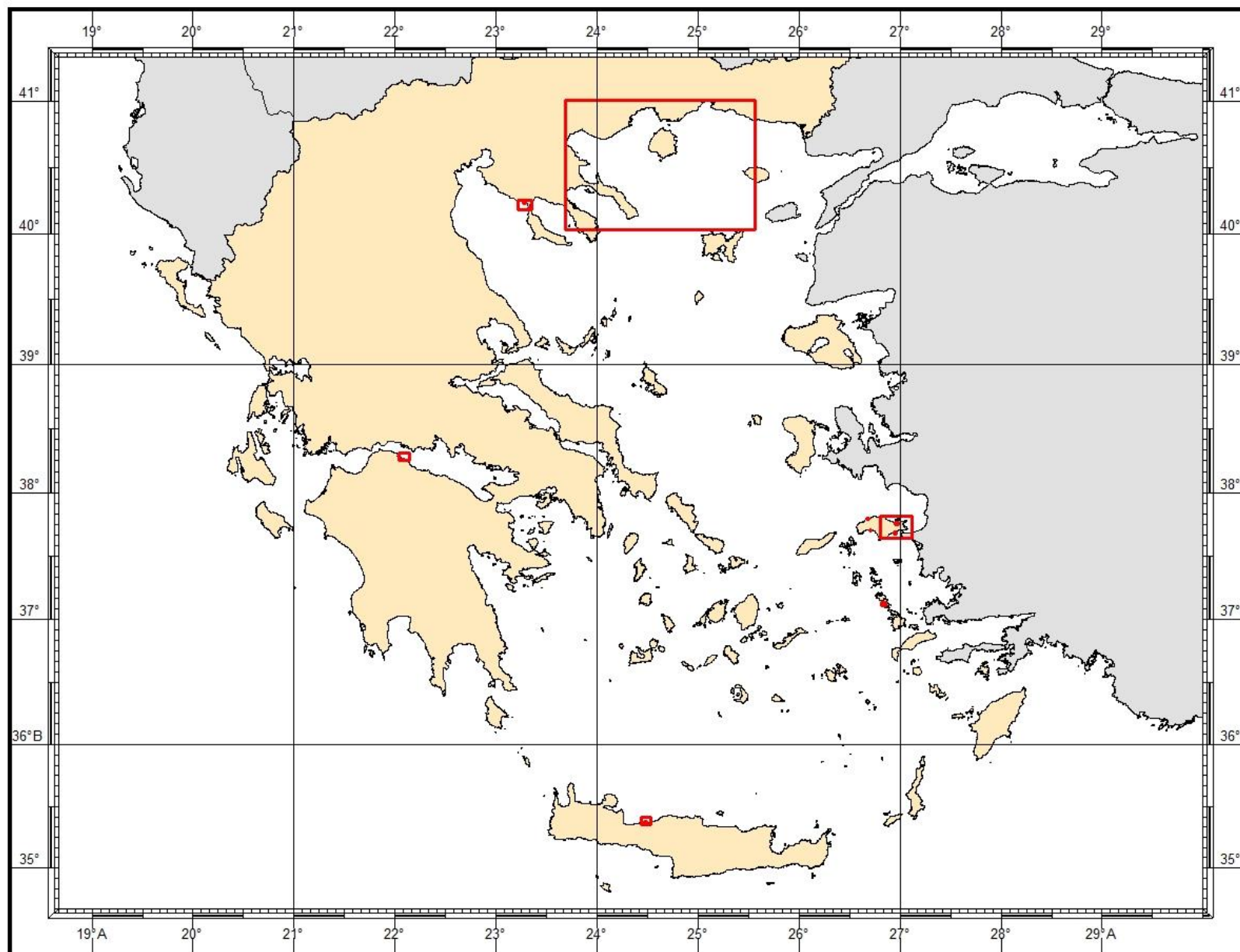


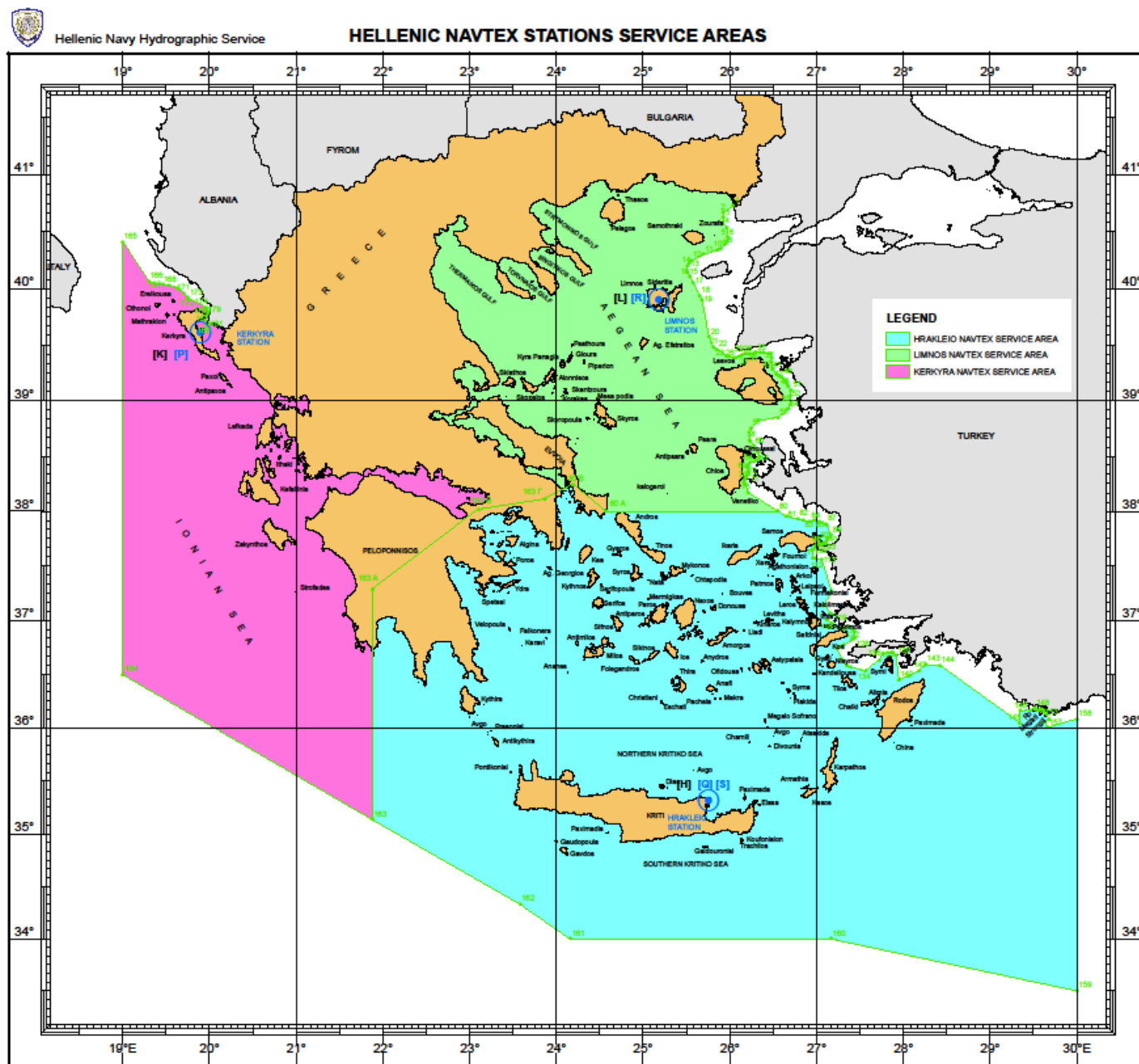
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## Harbour - Berthing



## National Paper Charts







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## Analogue and Digital Gauges

