

HELLENIC TIDE GAUGE NETWORK

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Hellenic Navy Hydrographic Service is responsible for the National Marine Operational System, concerning the observation of the sea level variations in the Aegean and Ionian Seas.

Hellenic Navy Hydrographic Service operated the first tide gauge in 1933. It was a float type tide gauge in stilling well, with weekly record on paper chart.

PERMANENT HELLENIC TIDE GAUGE NETWORK - HNHS

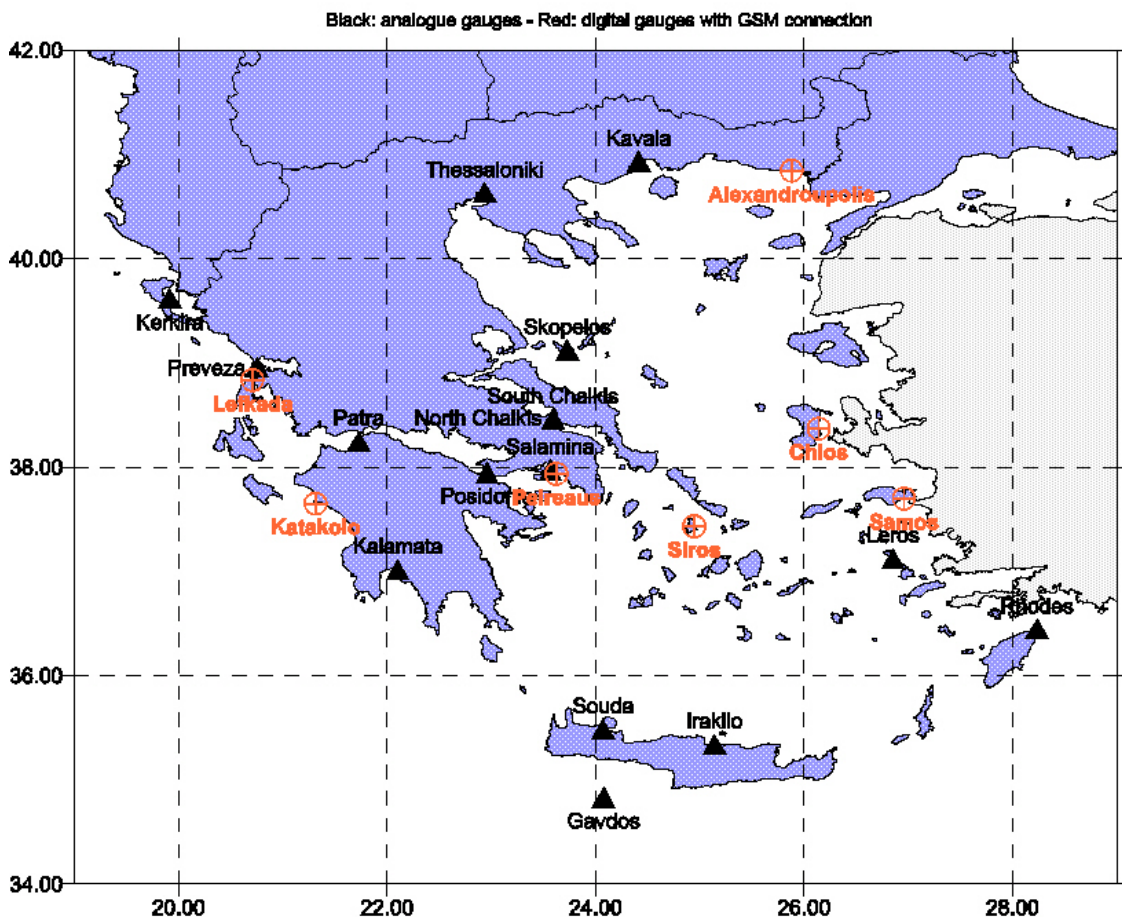


Figure 1.

Since then HNHS increased the Hellenic network with tide gauges of the same type (analogous floating). Nowadays tide gauges are operating in ports of Alexandroupolis, Kavala, Thessaloniki, Chios Isl, Skopelos Isl., Syros Isl., Samos Isl., Leros Isl., Rhodes Isl., Crete Isl (Souda and Heraklion), Chalkida

(North port and South port), Poseidonia, Salamina, Peiraeus, Kalamata, Preveza, Lefkada, Patra, Katakolo and Kerkira (figure1). All tide gauges are float gauges in stilling well.

In 1999, the existing network has started to be upgraded by establishing digital systems. Thus, seven gauges have been upgraded with digital recorders (red in figure 1). Three of them (Alexandroupolis, Lefkas and Chios) have been upgraded during the ESEAS-RI project. Data from the upgraded stations are collected and sent to HNHS via GSM modem.

In November 2004 a permanent operating GPS station (CGPS) has been established in Lefkas tide gauge and is operating since then.

LIST OF STATIONS

Station	Latitude	Longitude	Start/end dates	Digitized data	International Data Banks
<i>Aegean Sea</i>					
Alexandroupoli	40° 50' 42.5"	25° 52' 43.8"	1981-today	1990-today	PSMSL(monthly means)
Kavala	40° 56' 08.2"	24° 24' 45.6"	1969-today	1969-today	»
Thessaloniki	40° 38' 0.7"	22° 56' 08.1"	1967-today	1990-today	»
Skopelos	39° 7' 28.8"	23° 43' 48.2"	1999-today	1999-today	»
North Chalkida	38° 28' 24.1"	23° 35' 35.5"	1977-today	1990-today	»
South Chalkida	38° 27' 43"	23° 35' 24.1"	1977-today	»	»
Chios	38° 22' 21.4"	26° 08' 30"	1978-today	»	»
Salamina	37° 58' 46.4"	23° 32' 03.1"	1967-2000	1990-2000	»
Posidonia	37° 57' 08"	23° 57' 38.6"	1975-today	»	»
Peireaus	37° 56' 08.4"	23° 37' 27.3"	1967-today	»	»
Siros	37° 26' 28"	24° 56' 46.6"	1979-today	»	»
Leros	37° 07' 50.8"	26° 50' 54.7"	1981-today	»	»
Rhodes	36° 26' 45.9"	28° 13' 44.3"	1981-today	»	»
Souda (Crete)	35° 29' 19.1"	24° 04' 59.1"	1973-today	»	»
Iraklion (Crete)	35° 20' 37.1"	25° 08' 09"	1970-today	1970-today	»
Samos	37o 45'	26o 58'	2005-today	2005-today	»
<i>Ionian Sea</i>					
Preveza	38° 57' 38.3"	20° 45' 20.4"	1975-today	1990-today	»
Lefkada	38° 50' 08"	20° 42' 32"	1979-today	»	»
Patras	38° 14' 55.5"	21° 43' 43.3"	1975-today	»	»
Katakolo	37° 38' 42.7"	21° 19' 15.4"	1981-today	»	»
Kalamata	37° 01' 29.2"	22° 06' 59.3"	1967-today	»	»
Kerkira	39o 36'	19o 55'	2004-today	2004-today	»

The Hydrography Division of HNHS is responsible for the establishing of the tide gauge and CGPS systems whereas the Oceanography Division of HNHS is responsible for processing, quality control and presentation of these data, according to IOC and ESEAS recommendations.

Digital tide gauges are operating collecting data at the intervals of 15 minutes averages with 5 minutes sampling rate of sea level data and temperature. Data are collected in data loggers and 15 minutes averages are calculated from 5 minutes samples. quality control, made by using TASK software and other appropriate tools, resulted sea level time series and CGPS Rinex data are published in HNHS web page (www.hnhs.gr) in electronic form and also forwarded in ESEAS FTP site for further usage by ESEAS partners.