

# Sea level data at BODC

BODC is involved in a variety of national, European-wide and international projects covering many aspects of sea level data.

## National Tidal & Sea Level Facility

<http://www.pol.ac.uk/ntsif/>

The UK tide gauge network, part of the National Tide & Sea Level Facility, was set up in 1953, as a result of severe flooding along the east coast of England. Today it is funded by the Department for Environment, Food and Rural Affairs (Defra) and consists of over 40 gauges (see location map). Data are collected, processed and banked centrally to provide long time series of reliable and accurate sea levels. The data are used for tidal analysis and prediction, oceanographic research, coastal defence and storm surge warning systems. Daily checks are kept on the performance of the gauges and the data are downloaded weekly. The British Oceanographic Data Centre (BODC) performs quality control checks and archives the data, which are then made freely available via the web after a 3 month lag.



## European Sea Level Service

<http://www.e seas.org/>



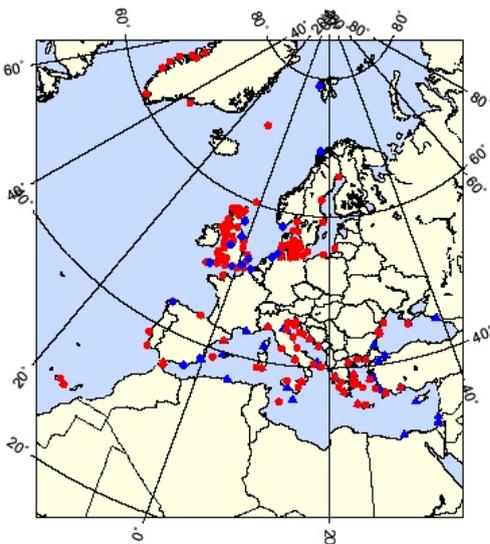
The European Sea Level Service (ESEAS) is an international collaboration of governmental and non-governmental organizations operating tide gauges along European coasts or providing sea-level related information originating from other sources such as satellite altimetry, GPS and absolute gravity measurements at tide gauges.

The ESEAS aims to provide quality-assured sea-level and sea-level related information for European waters to a broad range of scientific and non-scientific users.

To do this, the ESEAS will maintain user-friendly interfaces to databases and stimulate research in order to improve observation and analysis methods.

The EU funded ESEAS-RI project was established by ESEAS to support the research infrastructure of ESEAS and facilitate full scientific exploitation of European sea level observations.

In the construction of ESEAS, it was recognised that a common set of procedures should be adopted for the quality-control of tide gauge data. BODC is one of the partners involved in the quality control workpackage, which hopes to standardise methods for quality control of sea-level data. This will result in data sets of sea level which have been acquired and processed to agreed standards and which have thereby obtained ESEAS quality endorsement. The workpackage also hopes to improve availability of tide gauge records from certain areas like the Eastern part of the Baltic Sea and the Adriatic by carrying out 'data archaeology' and digitising older analogue records.





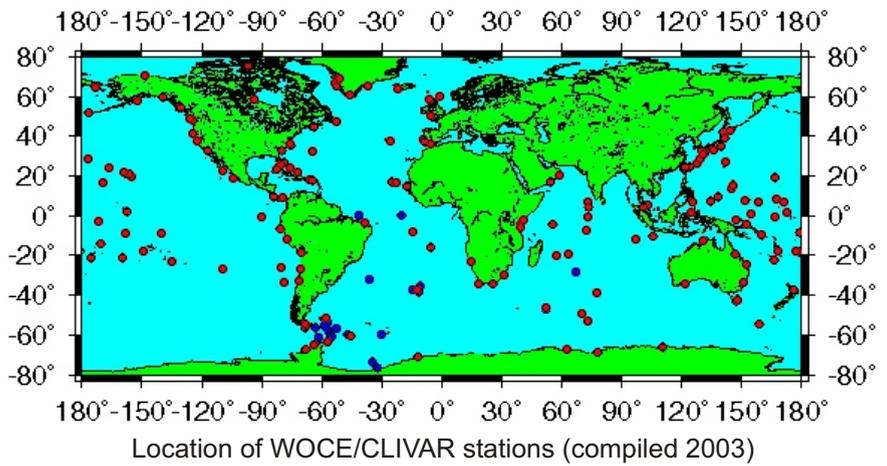
<http://www.clivar.org/>

The CLIVAR (Climate Variability & Predictability) project, which began in 1995, is an international research programme addressing many issues of natural climate variability and anthropogenic climate change. As part of the wider World Climate Research Programme (WCRP), CLIVAR is giving insights into the working of the climate system and hence answers to important questions. Climate variability, its extremes and possible future changes have a strong impact on mankind. CLIVAR seeks to better understand and predict our climate in order to take precautions and to reduce impacts of climate variability and change on our planet.

The British Oceanographic Data Centre (BODC) was the 'delayed-mode' sea level centre for the World Ocean Circulation Experiment (WOCE). BODC was responsible for assembling, quality controlling and disseminating the data collected. Over 3550 site years from 160 stations in over 20 countries were quality controlled and stored at BODC. This included data from many types of instruments such as float and stilling wells, pressure sensors, bubbler gauges, acoustic gauges and bottom pressure recorders.

There were a few sites that had other parameters recorded, such as atmospheric pressure, air temperature, sea temperature, wind speed, gust wind speed and wind direction.

BODC will be continuing in this 'delayed-mode' role for CLIVAR and this work will be complemented by the operation of the 'fast-delivery' Sea Level Data Assembly Centre at the University of Hawaii Sea Level Centre.

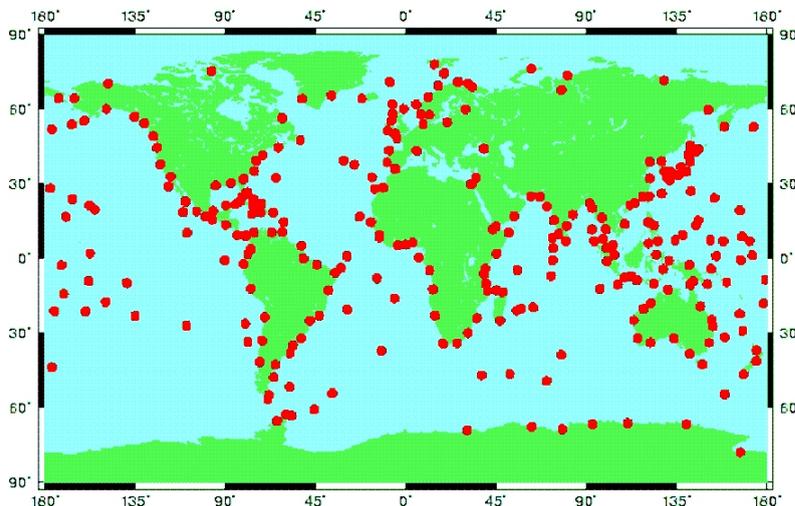


- Tide gauges
- Bottom pressure recorders



The Global Sea Level Observing System (GLOSS) is an international programme conducted under the auspices of the Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) of the World Meteorological Organisation (WMO) and the Intergovernmental Oceanographic Commission (IOC). GLOSS aims at the establishment of high quality global and regional sea level networks for application to climate, oceanographic and coastal sea level research. The programme became known as GLOSS as it provides data for deriving the 'Global Level of the Sea Surface'.

<http://www.pol.ac.uk/psmsl/programmes/gloss.info.html>



GLOSS Core Network (as of 2003)

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BODC acts as a GLOSS Archiving Centre for delayed-mode high frequency (hourly, 15 minute, 6 minute) data in partnership with the University of Hawaii 'fast-delivery' centre. BODC also maintains the GLOSS Station Handbook which provides information on the tide gauges that make up the GLOSS Core Network and coordinates the GLOSS Sea Level Data Archeology Project, which aims to catalogue and 'rescue' historical sea-level data in paper form.