



**National
Oceanography
Centre**

**Permanent
Service for
Mean Sea Level**

UNITED KINGDOM NATIONAL REPORT

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Geoff Hargreaves, Jeff Pugh, Simon Williams**

GLOSS GE XVIII 11-14 March 2025

UK NATIONAL NETWORK

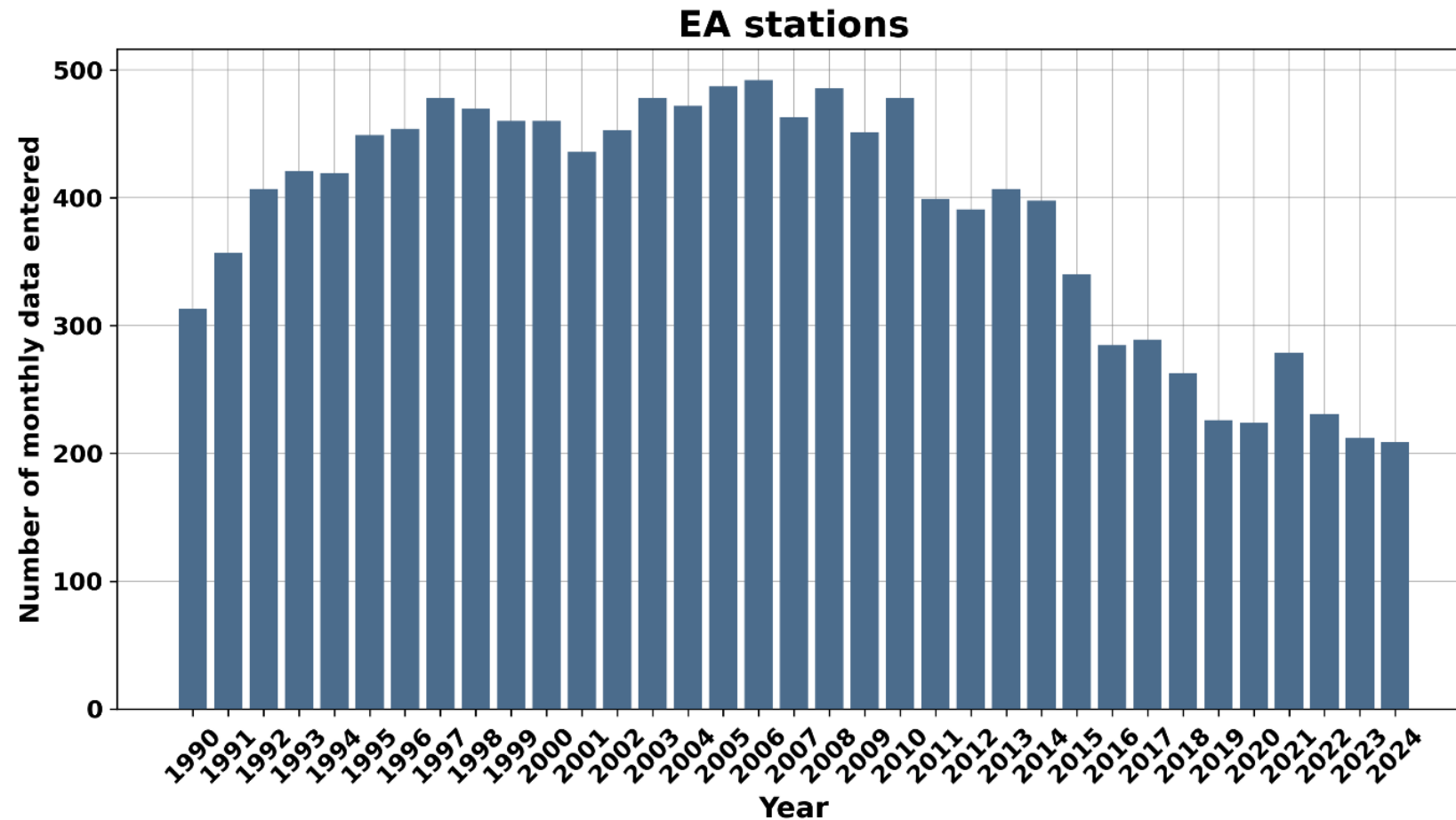
- 42 sites across the United Kingdom
- Maintained by Environment Agency
- Three GLOSS core sites:
Newlyn, Stornoway, Lerwick
- Five key long-term sites:
Newlyn, Liverpool, Aberdeen,
North Shields, Sheerness

UK Tide Gauge Network



NETWORK DECLINE

Total number of months submitted to PSMSL, 1990-2024



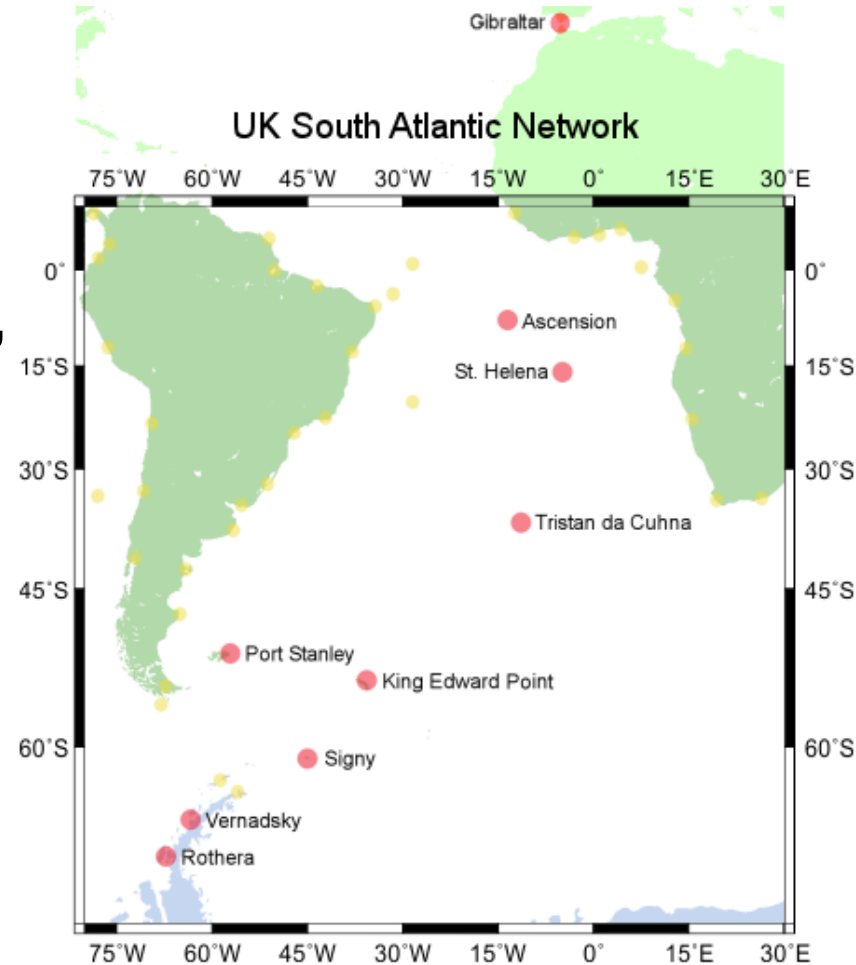
NATIONAL OCEANOGRAPHY CENTRE SCIENTIFIC NETWORK

- Aim – GLOSS standard gauges at each of the 7 key sites
- Twin radar
- GNSS-IR
- Newlyn, Sheerness, “Liverpool” installed in 2021/2022
- Funding secured to install other sites – planned 2026



SOUTH ATLANTIC NETWORK

- 8 sites maintained by NOC
- Signy decommissioned 2016
- Replacement sensors at Gibraltar, Ascension, Port Stanley
- GNSS-IR planned for Tristan da Cunha
- Explicit funds for quality control provided in recent project



Renewable powered
twin radar at
Ascension

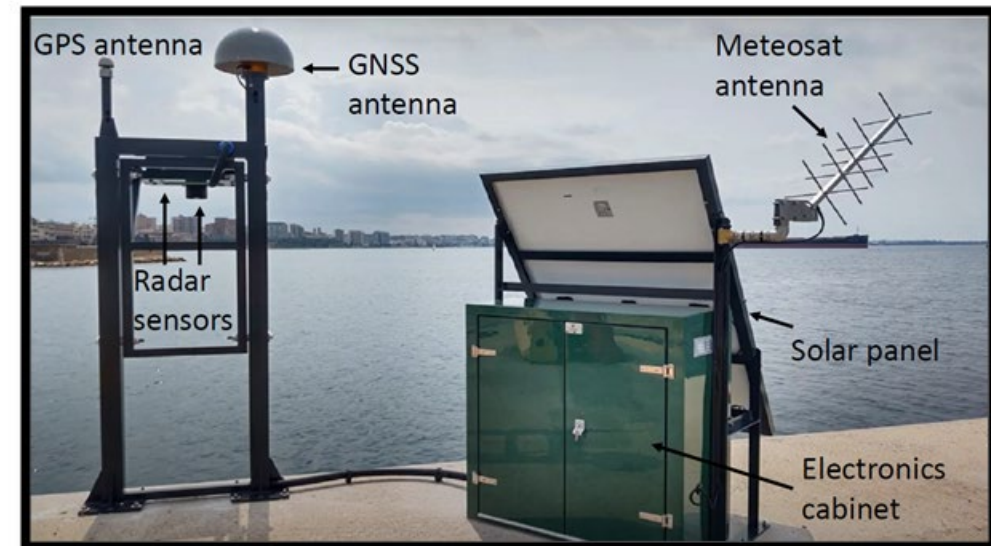
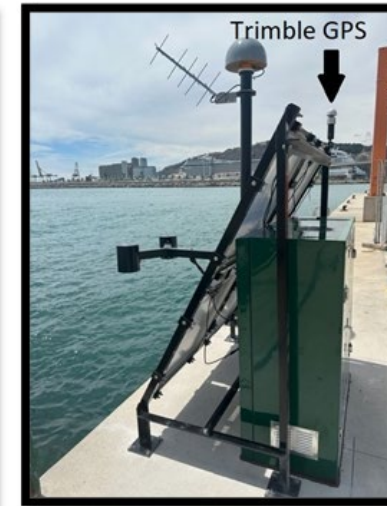
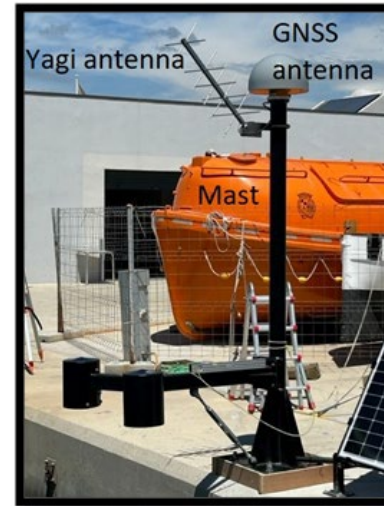
Sites we've provided technical assistance to in the past

- Karachi, Pakistan: provided new radar and pressure sensors
- Aden, Yemen: failed March 2024, needs new installation
- Alexandria, Egypt: new installation nearly ready for shipping
- St Lucia – operate 4 gauges under contract from the government

EUROSEA PROJECT – THREE INSTALLATIONS

Multiple sensors, met data,
GNSS-IR, significant wave height

- Top – Barcelona, Spain
- Bottom – Taranto, Italy
- Buenaventura, Colombia
awaiting installation



GNSS-IR DEVELOPMENTS

Low-cost GNSS-IR
deployments:

- Tidal predictions
- SWOT calibration

