

Global Sea Level Observing System (GLOSS)

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The GLOSS Programme

- Established by IOC in mid-1980s with the aim of improving the quantity and quality of sea level data to PSMSL and other sea level centres.
- Original aim: Development of GLOSS Core Network of 300 sea level stations for range of ocean/climate science and practical applications.
- Global select set of gauges spaced 500-1000 km apart. Geographically balanced. Open ocean locations. Best technology.

THERE ARE 4 GLOSS DATA STREAMS

1. Delayed mode, quality controlled Mean Sea Level (MSL) data to the PSMSL
2. Delayed mode, quality controlled higher-frequency data (e.g. hourly heights) to a GLOSS Data Centre (PSMSL or UHSLC)
3. Fast data to GLOSS Fast Centre at UHSLC & Intl Tsunami WCs
4. GPS data to TIGA Centre at Potsdam (Germany) initiated by IGS/PSMSL in 2001.



What are the elements of GLOSS ?

**Coordination mechanism re. global sea level obs.
(GLOSS Group of Experts)**

**Global data standards & archiving facilities with
QC of data**

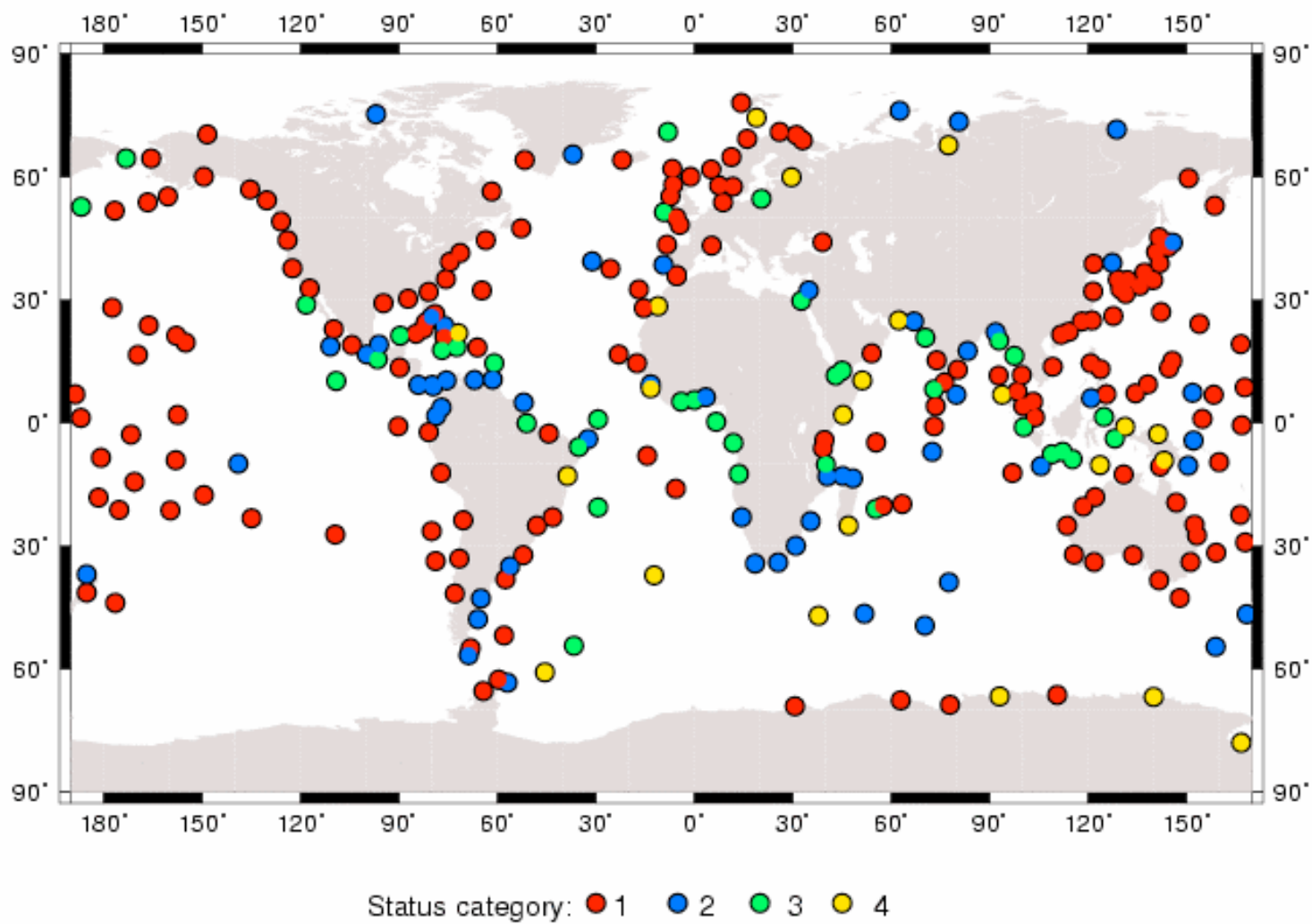
Technical manuals and training material

**Technical advice and special workshops on
technical issues**

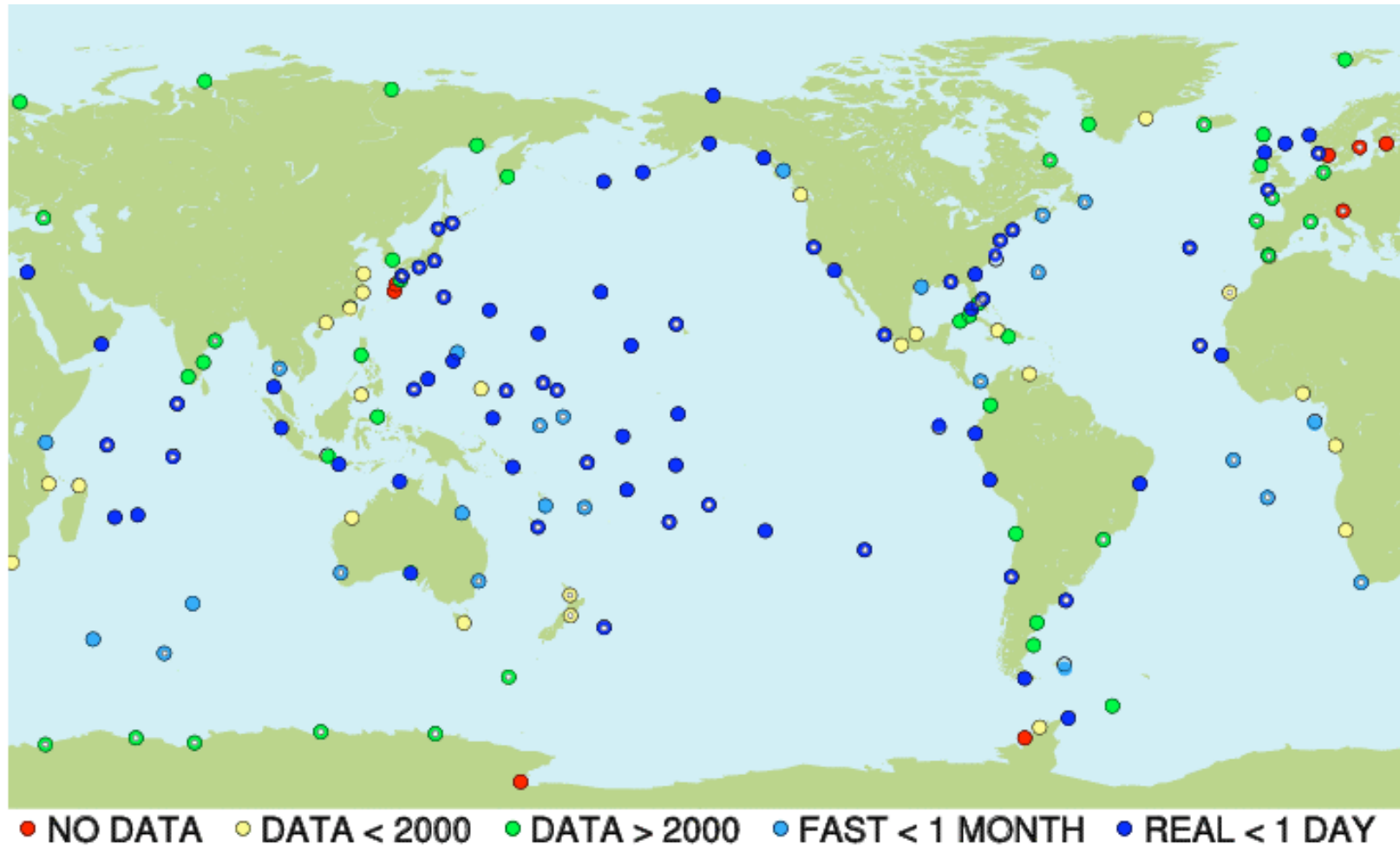
**Training courses on analysis & uses of sea level
observations**

Limited provision of gauges

GLOSS status within the PSMSL dataset. October 2005



GCOS IN SITU SEA LEVEL DATA



GLOSS Network Developments

GLOSS alone

- 6 real-time station upgrades underway (Mozambique (2); South Africa (3) and Pakistan (1))
- Sea level training course at the Japan Meteorological Agency (Tokyo, 15-26 May 2006).
- Update and publication of IOC Manual on Sea Level Measurement and Interpretation developed by the GLOSS Technical Subcommittee (2nd quarter of 2006).

OdinAfrica in collaboration with GLOSS

- OdinAfrica III Some 10 stations are targeted for installations under this project. 5 gauge installations are expected to be done in 2nd half of 2006.
- Technical visits to other proposed OdinAfrica station sites under way. Focus is on Moroni (Comoros), Nosy Be and Fort Dauphin (Madagascar).
- Sea level training course in November 2006 in Oostend.

Indian Ocean Tsunami Warning System and GLOSS

- 17 gauges are being upgraded for high frequency data transmission (15 minute transmission frequency) by IOC under a contract with the University of Hawaii Sea Level Center.

IOTWS Developments



Other Sea Level Network Developments

- National (Kenya, Tanzania, India, Thailand, Malaysia, Australia, France), bilateral (Germany-Indonesia) and multilateral initiatives (IOC, ADPC) in support of IOTWS
- Caribbean
- NE Atlantic and Mediterranean
- Benguela LME

Action and Information Issues for OOPC

- With new gauge installations maintenance and sustainability is an issue
- Gauge installations in polar regions – has OOPC push for this in light of IPY?
- WCRP workshop: Understanding Sea Level Rise and Variability (Paris, 6-9 June 2006)
- Adjustment of GCOS/GLOSS station network list

