

Communiqué
by
The Group of Experts for the Global Sea Level Observing System (GLOSS)
concerning the contribution by GLOSS and its core network of sea level stations
to tsunami and multi-hazard warning systems
(adopted on 25 February 2005)

The Intergovernmental Oceanographic Commission (IOC) established the Global Sea Level Observing System (GLOSS) in 1985 to:

- (i) Improve the quantity and quality of sea level data provided to the Permanent Service for Mean Sea Level in the U.K., principally as input to studies of long-term sea level change, and
- (ii) Provide the key data needed for international research programmes, such as the World Ocean Circulation Experiment and later, the Climate Variability and Predictability Programme, and the climate and coastal modules of the Global Ocean Observing System.

GLOSS has defined a Core Network of tide-gauges of approximately 300 stations distributed along continental coastlines and throughout each of the world's island groups; at the present time, the Core Network has grown to the extent that:

- During the past four years, over half of the stations have reported data, and
- Half of those stations regularly report *high-frequency* (from 2 to 6 minutes) data in *real time* (within one hour).

During its 22nd Session in June 2003, the IOC Assembly called on the Member States to provide data from stations in accordance with the GLOSS Implementation Plan (1997), and support the recommendations of the GLOSS Adequacy Report, upgrading GLOSS stations to the extent possible for the delivery of real-time data (IOC XXII Decision 4.4.5).

GLOSS is committed to transforming and sustaining its Core Network as an operational global network of sea-level gauges.

GLOSS will do this by working with and through the Member States of the IOC.

GLOSS data are provided without restriction for all to use.

By *operational*, GLOSS envisions a network operating on a 24/7 basis to provide data with sufficient frequency of sampling and sufficient timeliness of reporting to meet the needs of the broad community of users of sea level data.

These needs for sea level data include, but are not limited to:

- Estimating global sea level rise
- Establishing datums for topography and bathymetry
- Estimating flow through straits and passages
- Characterizing coastal expressions of phenomena like ENSO
- Supporting coastal engineering needs
- Calibrating satellite altimetry
- Determining tidal components for prediction
- Supporting safe navigation and harbour activities
- Measuring and predicting storm surges
- Supporting tsunami warning

In its effort to complete the Core Network, GLOSS stands ready to work with specific users to identify observational requirements – such as station location, frequency of sampling, and timeliness of reporting – associated with meeting their needs for sea level data; to the extent that there are additional costs associated with meeting their needs, GLOSS will work with those users to ensure that the additional funds are secured.

The *Communiqué Relating to Support for Tsunami and Multi-Hazard Warning Systems within the Context of the Global Earth Observation System of Systems (GEOSS)* was adopted on 16 February 2005 at the Third Earth Observation Summit in Brussels. This *Communiqué* notes that disaster reduction is a high-priority area that will be addressed in the GEOSS Ten-Year Implementation Plan and within the framework of the International Strategy for Disaster Reduction. Given this *Communiqué*, as well as considering the developing UN International Early Warning Programme, GLOSS is interested in making the operational capability of its Core Network available as a basic element of GEOSS, especially to meet the needs for disaster reduction.

In so doing, GLOSS can contribute to the realization of effective tsunami warning systems in the Indian Ocean, Caribbean and Mediterranean Seas, and other regions of the world, as an integral part of a multi-hazard aspect of GEOSS.

In this context, GLOSS is prepared to work with the International Coordinating Group for the Pacific Tsunami Warning System (ICG/PTWS) and others as appropriate – as the capability for tsunami warning expands to the globe – to define requirements for new GLOSS stations and/or upgrades to existing GLOSS Stations.