



GSN

NETWORK REPORT

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Summary

The IRIS Global Seismographic Network has 125 stations following the completion during the past year of MBWA Marble Bar, Western Australia and closure of Taburiente, Canary Islands. The GSN is comprised of 72 IRIS/USGS, 38 IRIS/IDA, and 12 IRIS/University Network stations, plus three stations as GSN Affiliates. There are 111 stations being accessed by the DMS SPYDER® and BUD real-time systems. In addition to seismometers, microbarographs are installed at 19 sites, and GPS instrumentation is co-located at 16 sites (8 with meteorological packages). New IP-based telecommunications circuits have been installed at 27 GSN sites since the last FDSN meeting in January 2001, and substantial bandwidth improvements have been realized over 12 existing links. VSAT links have been installed at Pitcairn and Midway Islands, in cooperation with the US National Weather Service Tsunami Warning Program and the National Research Institute for Earth Science and Disaster Prevention of Japan. Shared use of CTBTO Global Communications Infrastructure VSATs for GSN telemetry has successfully been tested by CTBTO and GSN, and the first implementation tests have begun at SJG, Puerto Rico and LSZ, Zambia. The deployment of additional geophysical sensors continues to expand the GSN stations as geophysical observatory sites.

New GSN Stations during the last year

<i>Station</i>	<i>Site</i>	<i>Location</i>	<i>Operator</i>	<i>Type</i>
MBWA	Marble Bar	Western Australia	ASL	Borehole

Network & Station Operators

ASL	USGS Albuquerque Seismological Laboratory
IDA	University of California, San Diego SIO/IGPP IDA Project

Installations

The map shows the current GSN station (red stars), and planned sites (red-white stars) for completion in the coming years. FDSN Network stations are also shown (purple). Many GSN stations are cooperative with other networks, indicated by the symbol on the 'shoulder' of the star. During the past year GSN has removed Madagascar and Oman from its planned station list, due to difficulties in arranging host institution agreements. GSN has added Trindade Island in the South Atlantic off the coast of Brazil to its siting plan.

Telecommunications

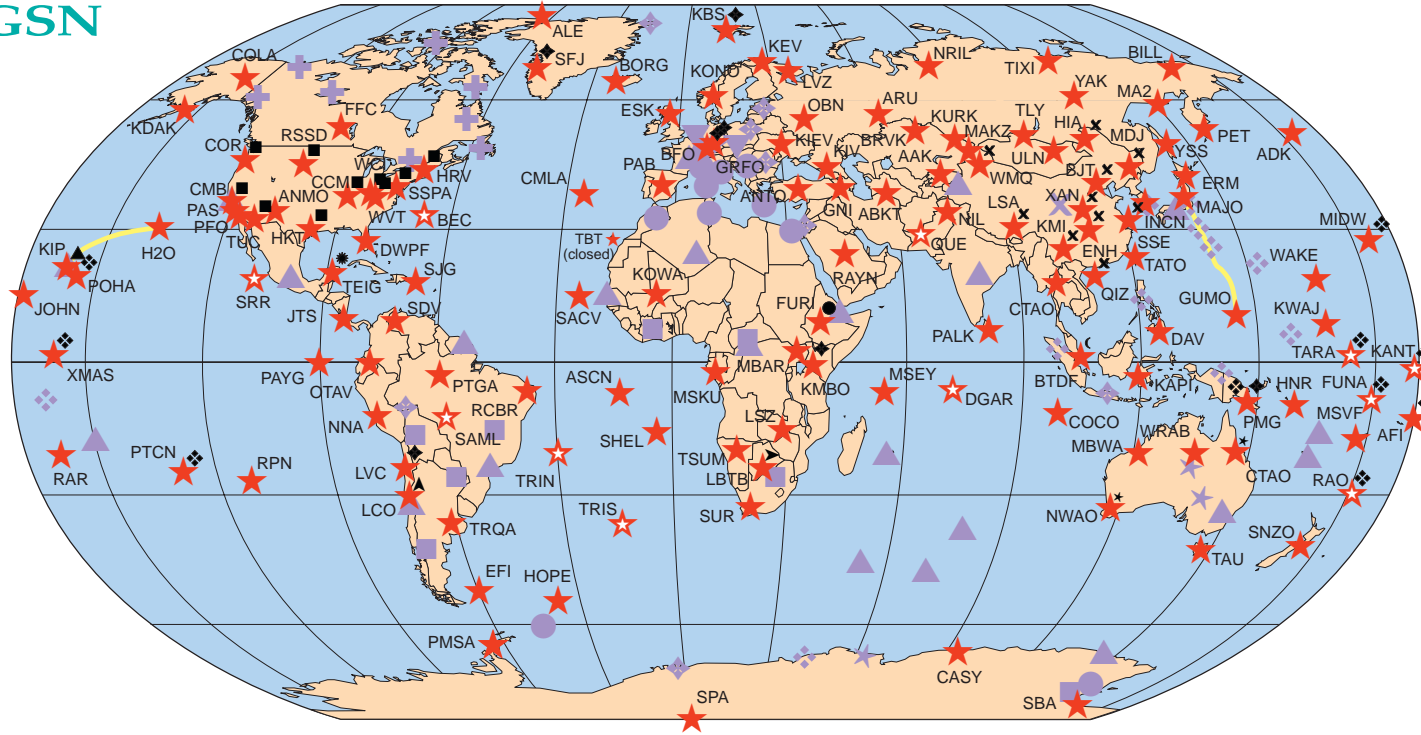
The current status of GSN telemetry is shown in the map. We are moving toward full real-time telemetry at most sites, but still have many dial-up stations. New and upgraded GSN telemetry links since the January 2001 FDSN meeting are highlighted.

Geophysical Observatories

Many GSN stations have co-located geophysical sensors, including gravimeters, GPS receivers, meteorological packages, geomagnetic instruments, and microbarographs. The map shows the extent of these co-location activities.



GLOBAL SEISMOGRAPHIC NETWORK & FDSN STATIONS



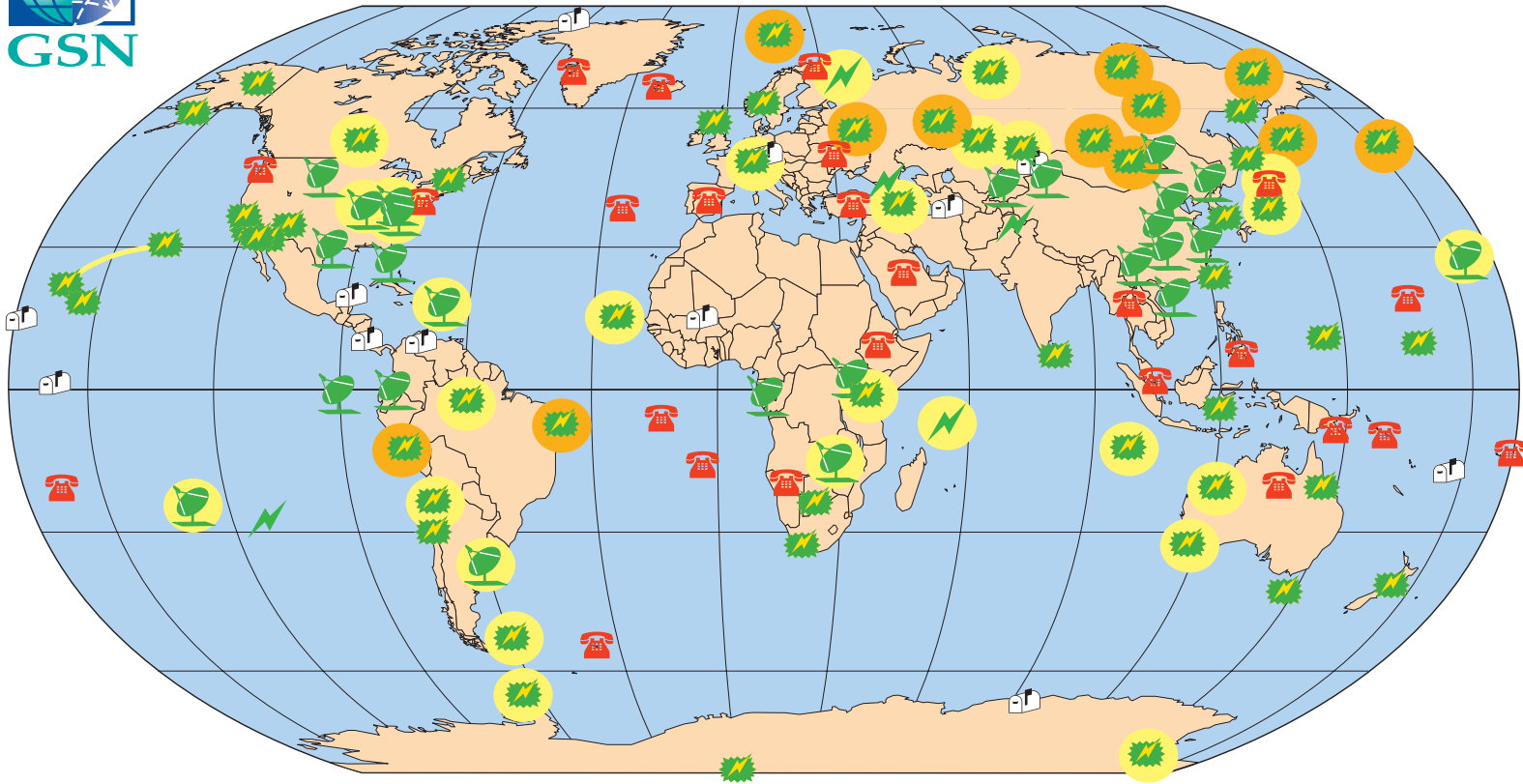
IRIS International & National Cooperative Sites											
IRIS Current	Geoscope	Japan	Mednet	Geofon/AWI/BGR/BFO	China/USGS	Mexico	Singapore	Botswana	Andes	Australia	USNSN



NEW TELEMETRY AND UPGRADES SINCE JANUARY, 2001

GSN COMMUNICATIONS

JUNE 2002



VSAT link



Internet link



Internet link with limited data



Dial-up data access



Data shipped via mail



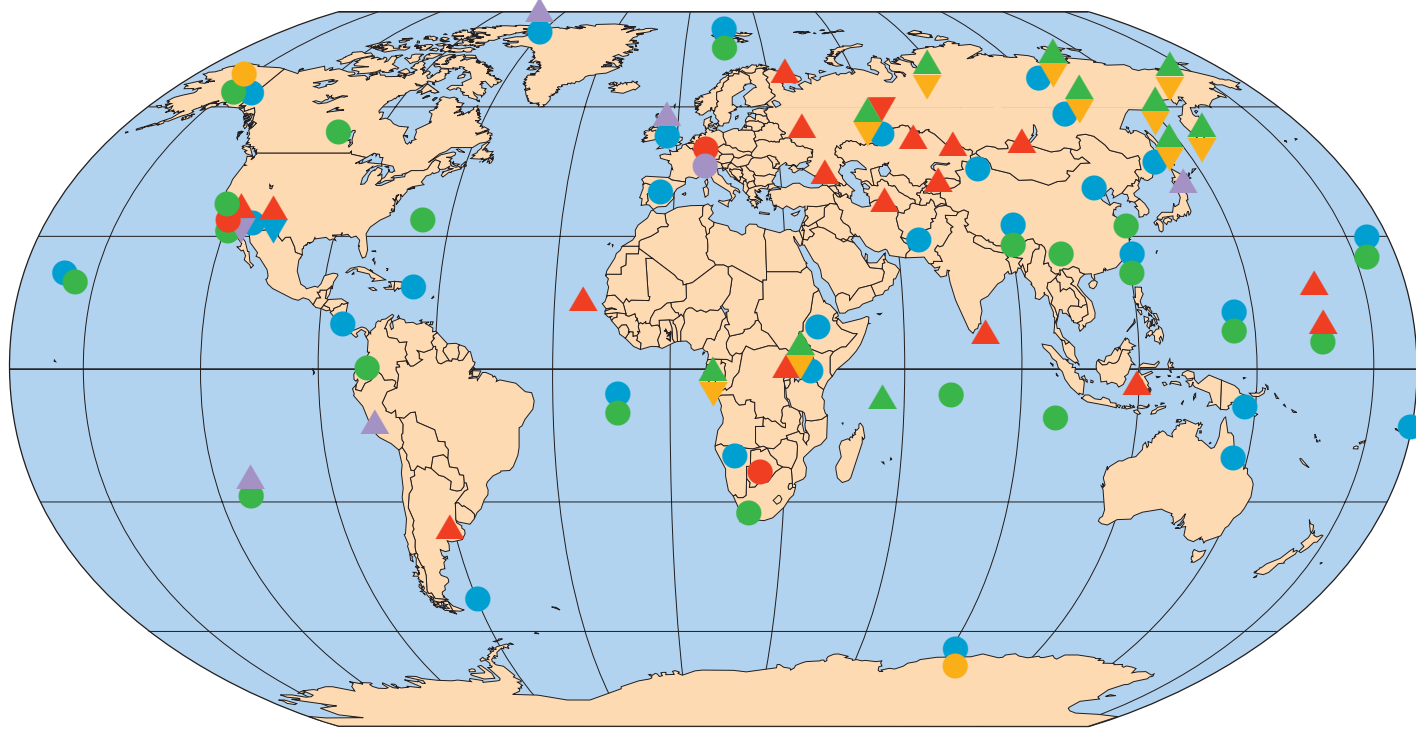
New Telemetry



Upgrade



GLOBAL SEISMOGRAPHIC NETWORK & GEOPHYSICAL OBSERVATORIES



- ▲ Gravimeter
- ▲ GPS
- ▲ Barograph
- ▲ Magnetometer
- ▲ Meteorological
- Co-located sensor
- ▲ GSN sensor