

Monitoring Earthquakes

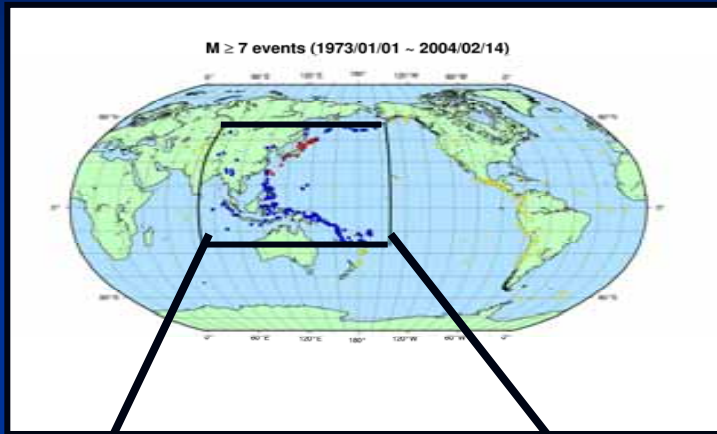
**Intellectual linkage system of individual seismic networks
in Asia-Pacific region**

GEOSS AP Symposium (Jan. 11-12, 2007)

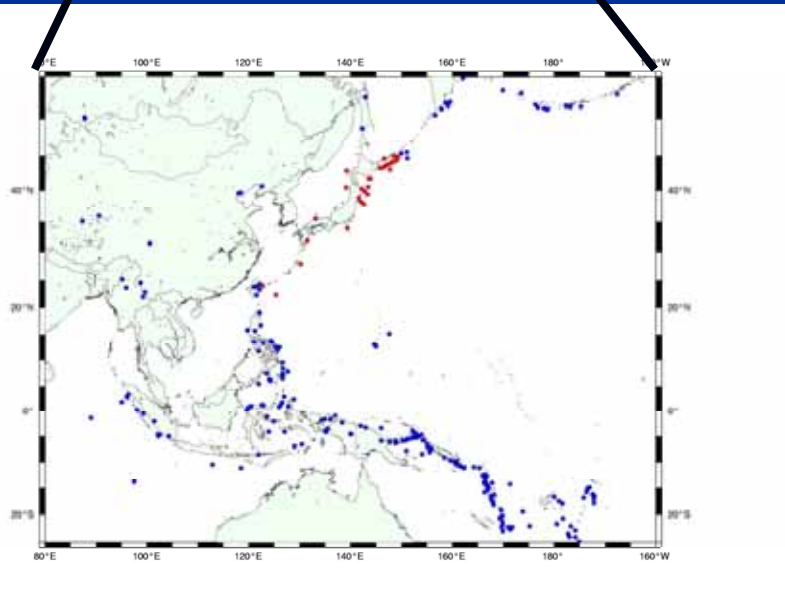
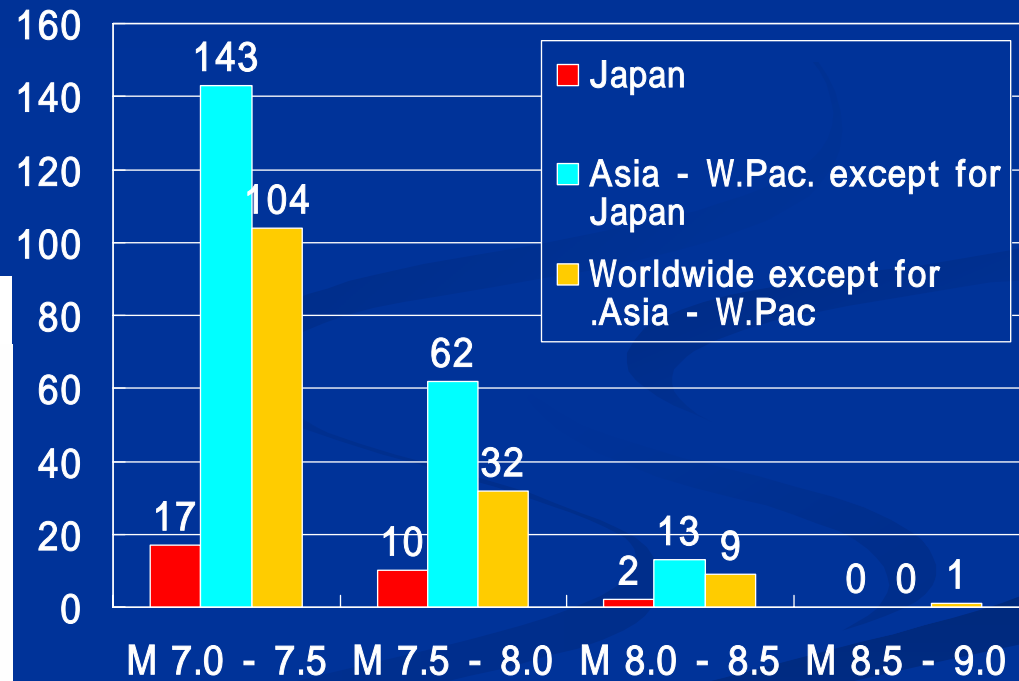
Mizuho Ishida

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Technology
(JAMSTEC)**

Frequency distribution of Earthquakes with M ≥ 7 in Asia-Pacific region



No. of Eq.





2004.12.26
Sumatra
More than 300,000

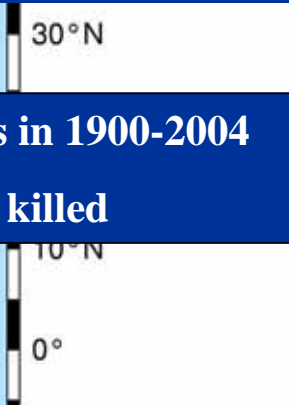
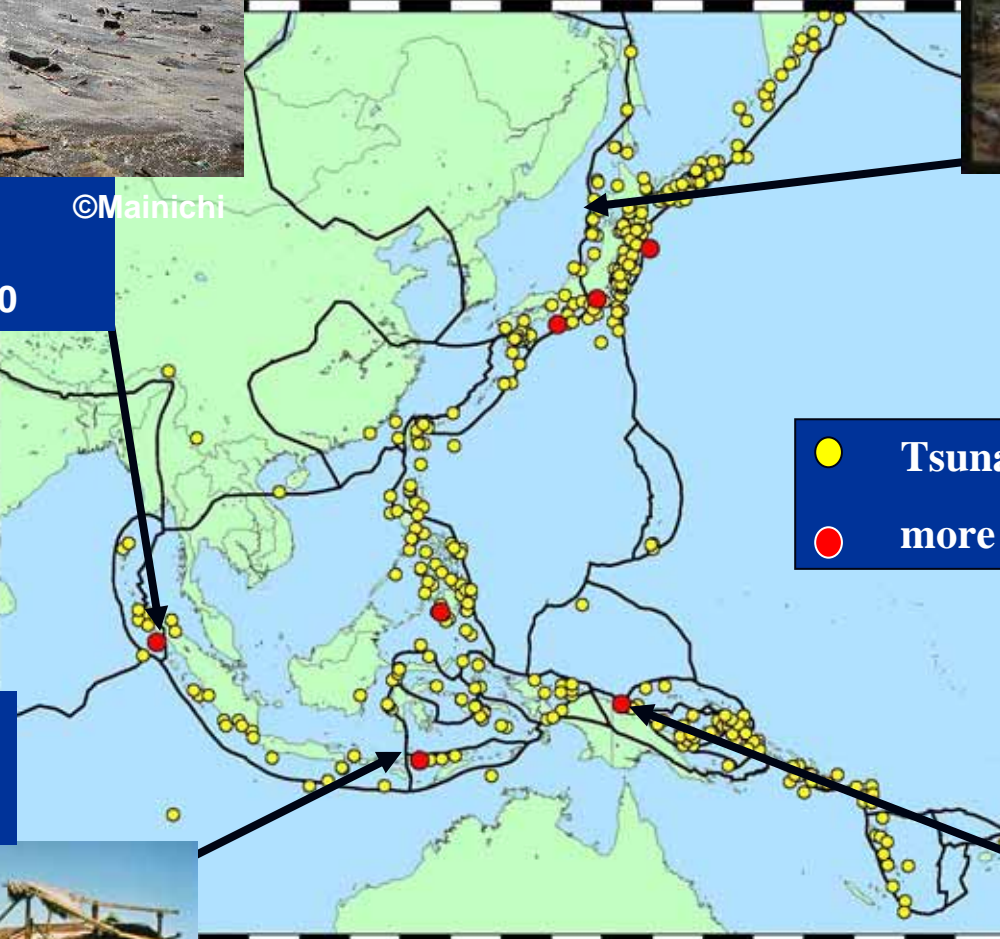
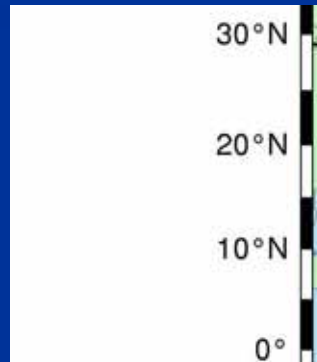
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Tsunami Disasters in Asia-Pacific Region

120°E 140°E 160°E



1993.7.12 M7.6
SW-off Hokkaido
230



- Tsunami sources in 1900-2004
- more than 1,000 killed

120°E 140°E 160°E 180°E

1992.12.12
M7.5 Flores Is.
More than 2,500



© Har...

1998.7.17.
PNG M7.1 2,138 killed



© Hugh Davies

10-year Target

Investigate the generation mechanism of earthquakes and tsunamis

Rein force observations (seismograph, GPS, etc) both on lands and underwater.

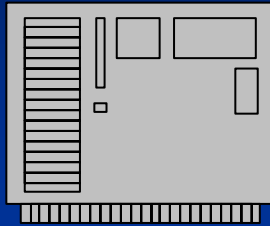
Maintain long-term observation network continuously.

Distribute observation data/analysis information to participating countries and also real-time data to Tsunami Warning Center

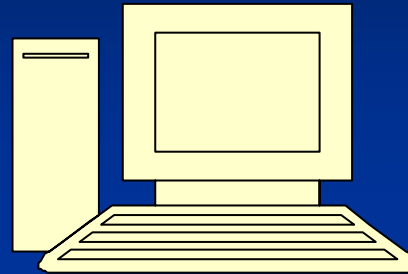
Exchange all data/information between their neighbor countries

Educate and train scientist

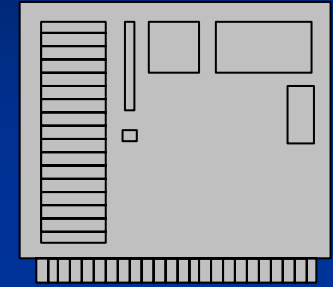
Intellectual linkage system of individual Geo-networks in Asia-Pacific region



National and international real-time seismic Data



GPS Data

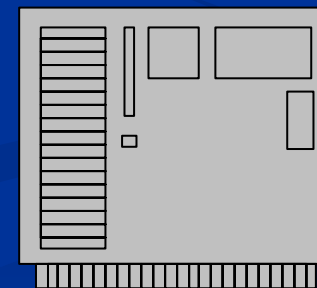


SAR, VLBI Database

The screenshot shows the 'GEOS Client' window with a search interface and a data table. The search window includes fields for 'From' and 'To' years and months, and a 'Search' button. The data table below lists various seismic events and VLBI observations.

Event ID	Date	Latitude	Longitude	Depth	Magnitude	Source	Location	Station
SEISMIC	2003-06-20 18:19:30.84	-11.506	121.722	200	5.0	FARM	BEAR COAST GP	ST
SEISMIC	2003-06-20 19:34:41.82	-26.608	119.637	211	5.0	FARM	BEAR COAST GP	ST
SEISMIC	2003-06-21 07:24:34.42	17.56	127.898	187	5.0	FARM	SIKARUA ISL	ST
SEISMIC	2003-06-22 12:24:42	34.428	176.793	201	5.0	FARM	BAI ISLANDS I	ST
SEISMIC	2003-06-26 14:11:44.82	21.253	123.860	191	5.0	FARM	SUIGON PHILIPPIN	ST
SEISMIC	2003-06-26 14:28:42.22	-3.325	146.148	191	5.0	FARM	BERAMPOK SEA	ST
SEISMIC	2003-06-27 03:43:13.28	19.24	103.00	5.0	SPICER	ACROTIRIA MG	ST	
SEISMIC	2003-04-02 03:43:11.52	10.30	125.13	10.00	5.0	FARM	ACROTIRIA MG	ST
SEISMIC	2003-04-02 03:38:38.12	89.28	-140.04	16.00	5.0	SPICER	SOUTH OF FLA I	ST
SEISMIC	2003-04-02 21:31:38.82	-25.64	119.01	479.80	5.0	SPICER	SOUTH OF FLA I	ST
SEISMIC	2003-04-02 21:31:38.82	-25.12	119.90	480.00	5.0	FARM	SOUTH OF FLA I	ST
SEISMIC	2003-04-02 22:03:32.12	146.18	147.89	177.80	5.0	FARM	MANAYU GLA I	ST

GEOS Data Center (Users' PC)



GIS Database

Contributions on fundamental researches and technology to mitigate the hazard of disasters In Asia Pacific region

- a) Investigation into the generation mechanism of earthquakes and tsunamis**
- b) Improvement of rapidness and accuracy of the information of earthquakes and tsunamis**
- c) Accumulation of earthquakes and tsunamis observation data by maintaining long-term observation network**
- d) Sharing of in real-time observation data/analysis information in Global/Regional scale**
- e) Education and training of scientists in the collaboration countries**

Thank you