

TSUNAMI NEWSLETTER



I N T E R N A T I O N A L T S U N A M I I N F O R M A T I O N C E N T E R -

UPDATING CONTACT INFORMATION

A letter is being sent out to all the national contacts regarding the best way to distribute the Tsunami Newsletter. Besides announcing the plans for the newsletter to be distributed bimonthly and available in electronic format (<http://www.shoa.cl/oceano/itic/frontpage.html>) ITIC hopes to get enough feedback to streamline and update its mailing list. Included in the mailing will be a list of duplicate materials the library would like to release in order to increase shelf space.

SUMMARY OF PACIFIC BASIN EARTHQUAKES

Occurring January - June 2000

*With surface wave or moment magnitudes greater than or equal to 6.5
(data provided by NEIC or PTWC using Harvard's calculated moment magnitude)*

Date	Location	Time UTC	Lat.	Long.	Depth Km	Ms	Mw	PTWC Action	Issued UTC
8 Jan	Tonga	16:47	16.9 S	174.2 W	183	-...-	7.2	-...-	-...-
28 Jan	Kuril Islands	14:21	43.0 N	146.9 E	61	6.6	6.8	-...-	-...-
6 Feb	New Britain Region, PNG	11:34	5.8 S	151.0 E	46	6.8	6.6	TIB*	12:20
25 Feb	Vanuatu Islands Region	01:44	19.6 S	174.0 E	20	7.1	7.1	TIB	02:11
28 Mar	Volcano Islands Region	11:00	22.3 N	143.7 E	127	-...-	7.6	TIB	11:32
4 May	Minahasa Peninsula Sulawesi	04:21	1.1 N	123.6 E	26	7.5	7.6	TIB	04:47
4 Jun	Southern Sumatera	16:29	4.0 S	102.7 E	54	8.0	7.9	TIB	17:11
7 Jun	Southern Sumatera	23:45	4.7 S	101.8 E	33	6.6	-...-	-...-	-...-

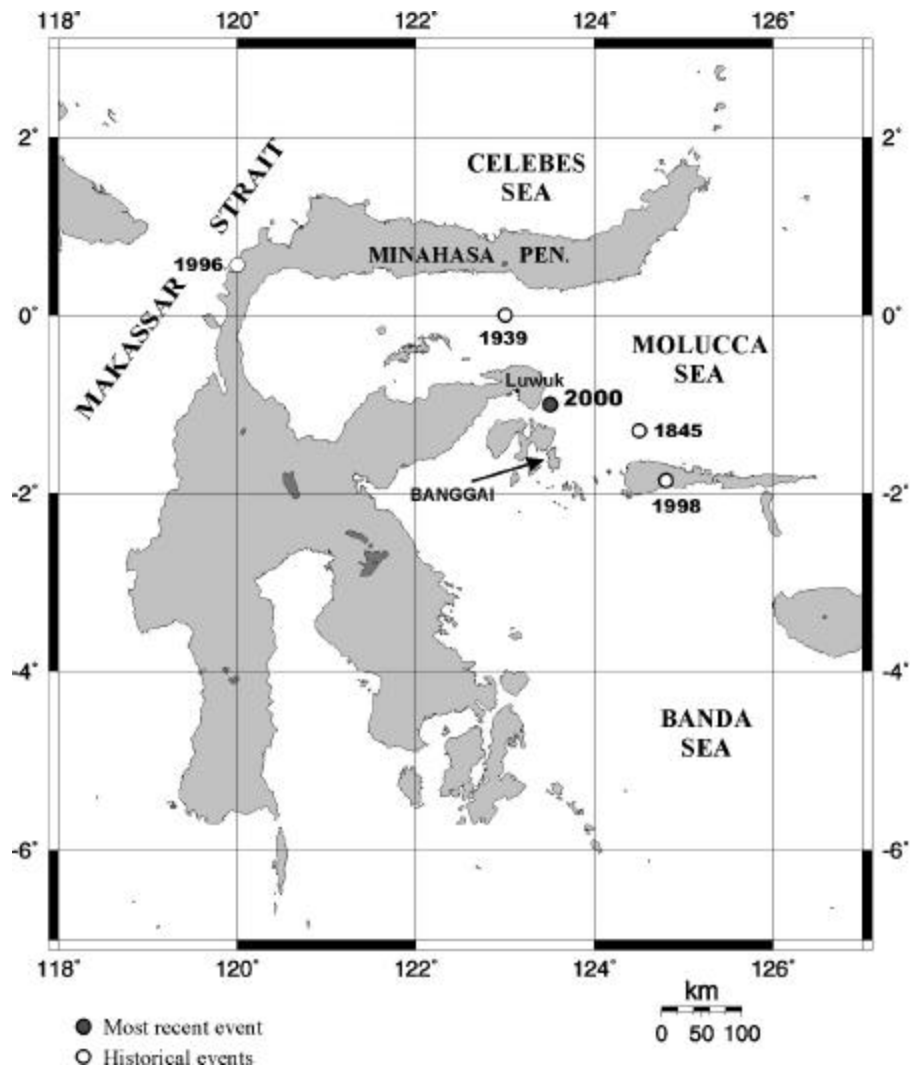
*Tsunami Information Bulletin

TSUNAMI EVENTS: 4 MAY 2000 SULAWESI

On May 4, 2000 an earthquake occurred off Sulawesi Indonesia in the Maluku Sea, killing 38 with many more injured and homeless especially in Banggai in the Peleng Islands. According to an e-mail posted to the Tsunami Bulletin Board from Fumihiko Imamura, local Indonesian news sources reported that a 2m tsunami inundated the villages of Kayuntanyo and Uwedikum. Sources also report runup along the coast East of Luwuk. Although the National Contact has not been available for comment, it is believed that no post-tsunami survey has been conducted. Runup was reported in Luwuk and in the Peleng Islands. A numerical analysis of the tsunami has been made by Imamura and Koike of the Disaster Control Research Center at Tohoku University in Sendai Japan. The various parameters of their model and outcomes are posted on the Web URL <http://www.tsunami.civil.tohoku.ac.jp/hokusai2/topics/tsunami-news>.

Historical Tsunamis in the same area

Date	Place	Time (UTC)	Latitude	Longitude	Ms	Source
Feb 8, 1845	Minahasa Peninsula	15:30	1.3 S	124.5 E	7.0	Soloviev/Go, 1984 Western Shore p. 240
Dec 22, 1939	Tomini Bay	05:01	0.0	123.0 E	8.0	ibid. p. 285
Nov 29, 1998	S. Molucca Sea	14:10	2.1 S	124.9 E	7.7	NEIC



RECENT PUBLICATIONS

Surviving a tsunami--Lessons from Chile, Hawaii, and Japan, U.S. Geological Survey Circular 1187. May was the 40th anniversary of the 1960 Chilean earthquake tsunami that caused destruction in Chile, Hawaii, and Japan and was felt in other countries as well. The US Geological Society in collaboration with several other organizations has put together a special brochure looking back at the event and using it to draw out survival hints and demonstrate the impact such an event has. Copies of the brochure are available free of charge within the US and for \$20 plus \$5 shipping elsewhere from USGS Information Services, Box 25286, Denver, CO 80225 USA; tel. (888) 275- - infoservices@usgs.gov. The publication can also be downloaded from PDF format at <http://geopubs.wr.usgs.gov/circular/c1187/>.

Science of Tsunami Hazards, Volume 18 Number 1 has been mailed out to members of the Tsunami Society. It contains the following articles: "Records of prehistoric tsunamis from boulder deposits evidence from Australia" by Jonathan Nott, "Predominance of long periods in large Pacific Tsunamis" by Kuniaki Abe, and "Tsunami mitigation for the city of Suva, Fiji" by Gajendra Prasad, Jack Rynn and Atu Kaloumaira. Past issue abstracts and full-available on the Web in PDF files. See The Tsunami Society Webpage : <http://www.ccalmr.ogi.edu/STH/>.

RECENT CONFERENCES

June 5-9, 2000. Pacific Congress on Marine Science & Technology 2000, "The Pacific Century", Honolulu, Hawaii. This was the 9th PACON conference hosted by PACON International. Tsunami research was presented by various groups and included inundation modeling in Shikoku, Japan, Kodiak, Alaska, Hilo, Hawaii and research on the effect of beach characteristics on runup. Many of those presenting papers have been kind enough to give copies to the ITIC library.

June 14-16, 2000. Tsunami Risk Assessment beyond 2000: Theory, Practice and Plans, Moscow Russia. This international workshop was held in memory of Professor Sergey L. Soloviev. At the opening ceremony Olga Solovieva, Sergey's widow, was recognized following a moment of silence in Sergey's memory. Abstracts of papers presented is available on the Web at: <http://omzg.sssc.ru/tsulab/abstracts.html>



June 27-30, 2000. Western Pacific Geophysics Meeting, Tokyo, Japan. Sponsored by American Geological Union and local sponsors. Meeting co-chairs were Kenji Satake, Earthquake Research Department, Geological Survey of Japan, 1-1-3 Higashi,

Tsukuba 305-8567, Japan; Tel: +81-298-54-3640, Fax: +81-298-52-3461; E-mail: satake@gsj.go.jp; and Robert L. Wesson,

U.S. Geological Survey, Denver Federal Center, MS 966, Box 25046, Denver, CO 80225-

Tel: +1-303-273-8524, Fax: +1-303-273-8600, E-mail: rwesson@usgs.gov Program notes and abstracts are listed on the Web at <http://agu.org/meetings/waiswp00.html>.

UPCOMING CONFERENCES

August 7-11, 2000. The Fourth International Congress on Earth Sciences, Santiago Chile. Includes a workshop to commemorate 40 years since the Earthquake and Tsunami of Valdivia, 1960.

Forty years ago Chile was affected by the greatest tectonic event that has ever been recorded in the world. This seminar aims to commemorate the occurrence of that disaster and to recall and reflect on it so as to the mitigation of the effect of this type of disaster. For this seminar, the Hydrographic and Oceanographic Service of the Chilean Navy (SHOA) has obtained aid from the Intergovernmental Oceanographic Commission making it possible for the following international experts to participate:

Dr. Slava Gusiakov, Head of the Tsunamis Laboratory of the Institute for Computing Mathematics and Mathematical Geophysics, and President of the Tsunami Commission of the International Union of Geodesy and Geophysics (IUGG).

Dr. Francois Schindele, of the Geophysics Laboratory of France, Chairman of the International Coordination Group for the Pacific Tsunami Warning System. For more about this conference contact Geography Military Institute of Chile, Nueva Santa Isabel 1640, Tel: (56-2) 4606813; e-mail: CCT2000@igm.cl. or <http://www.igm.cl>

August 28-31, 2000. LACDE 2000, Reykjavik, Iceland. The fourth conference hosted by Local Authorities Confronting Disasters & Emergencies. Topics include "Linkage between science and local authorities" For more information on this conference contact LACDE c/o Union of Local Authorities in Israel (ULAI) 3 Heftman St. P.O. Box 20020, Tel Aviv, 61200, Israel. Tel: 972-3-691-6821 or e-mail: ulais@netvision.net.il.

October 9-11, 2000. First International Global Disaster Information Network (GDIN) Information Technology Exposition and Conference, Honolulu, Hawaii, USA. This conference is hosted by GDIN Information Technology of Ann Arbor MI sponsored by numerous agencies, including the Pacific Disaster Center. The mission of the GDIN initiative is to foster the development and effective use of global disaster information networks. More about

this conference is available on the Web at www.erim-int.com/CONF/GDIN.html

October 30—November 9, 2000. The 16th Session of the IOC Committee for International Oceanographic Data and Information Exchange will be hosted by Portugal and will take place between 30 October and 9 November 2000. This meeting was first scheduled to take place in Turkey, but after the earthquake was re-scheduled. Online registration and more information is available at <http://ioc.unesco.org/iode/iode16/>.

April 3-5 2001. Oceanology International Americas 2001, Miami, Florida, USA. Organized by Spearhead-PGI Worldwide Exhibitions Ltd. Registration to this conference is free and is sponsored by a number of oceanographical societies including the IOC, NOAA, NASA and the Society for Underwater Technology. Online registration and more information is available at www.oiamericas.com. para informacion en español.

August 7-11, 2001 International Tsunami Symposium 2001 (ITS 2001), Seattle, Washington, USA. The principal aim of this symposium is to bring together scientists, engineers, and emergency managers from all over the world specializing in tsunami research and mitigation. They will exchange current information on technical advances and discuss progress in the science. The scope covers all aspects of tsunami phenomena such as tsunami generation, propagation and seismic focus; tsunami prediction and simulations; tsunami disasters and mitigation; instrumentation and observations; tsunami warning and preparedness and tsunami databases. Abstracts may be submitted until September 1, 2000. Contact E.N. Bernard NOAA/PMEL, 7600 S N.E., Seattle, WA 98115-6349 USA phone 1-206-526-6800 or fax 1-206-525-4576 or bernard@pmel.noaa.gov www.pmel.noaa.gov/its2001.

Final Year of the IDNDR

contributed by Iouri Oliounine(IOC) and Charles McCreery (PTWC)

1999 marked an important event - the conclusion of the International Decade for Natural Disaster Reduction (IDNDR). Through the IDNDR Programme Forum which took place in July 1999 in Geneva the international community undertook a final evaluation as to how the concept of disaster reduction has evolved over time and what concrete results have been achieved during the decade. The consensus of the Forum was that multi-sectoral and interdisciplinary cooperation took place at all levels; synergy between science and technology and operational responsibilities has been successfully promoted; and available knowledge is being applied for the protection of communities at risk. The United Nations has proven its capability to integrate disaster reduction into strategic approaches and action plans. Effective disaster response, preparedness, mitigation, and prevention are no longer perceived as fragmented phases of disaster management, but are recognized as integral components of long-term disaster reduction strategies.

As a follow-up to the IDNDR, the Intergovernmental Oceanographic Commission of UNESCO has created a policy for disaster reduction based on the following principles:

- Integration is a key to success. A natural disaster reduction project is condemned to failure if a one-discipline approach creates the basis of the project formulation and implementation.
- Development of regional networks and projects is a priority. Regional projects have more chance for success. They help to save human and financial resources and meet the goal in a more effective manner.
- Collaboration and partnership instead of competition. Member States and organizations should cooperate in formulating disaster reduction projects and in looking for funds.

Free and open information exchange is a way for improved interaction and strengthening the synergy with different disciplines and organizations.

A summary of tsunami mitigation activities during the decade was presented at the WMO/UNESCO Sub-Forum on Science and Technology IDNDR Programme Forum by the PTWC Director.

It was reported that during the decade, significant progress was made towards more effectively mitigating the tsunami hazard, much of it through the activities of ITSU and its Member States.

historical tsunami data were compiled in computer databases with graphical interfaces to provide widespread access and to better assess the tsunami hazard in each coastal region. Numerical modeling of tsunamis matured, and this technology was transferred to many countries at risk for producing realistic tsunami inundation maps to guide coastal development and emergency planning. Warning systems gained better and faster access to high quality seismic and water level data, adopted better techniques for evaluating tsunamis, and utilized more effective methods for disseminating warnings. Educational materials for both children and adults were produced in many languages. Nevertheless, with ever-increasing coastal development and population growth, significant challenges remain. Eleven destructive tsunamis occurred during the decade, causing over 4,000 casualties and significant property damage. When these events are examined, it is possible to identify ways that mitigation have helped, but more often how those efforts need to be expanded and improved in the future. The complete proceedings of the Sub-Forum have been published by the World Meteorological Organization (pub. No. 914).



NEW PROGRAMME

United Nations
International Strategy for
Disaster Reduction
(ISDR)

<http://www.unisdr.org/>

HISTORICAL TSUNAMI DATABASE REGIONAL COORDINATORS

An effort is being made to increase the availability and quality of the Historical Tsunami Database for the Pacific (HTDB/PAC). Regional coordinators are checking the inclusiveness and quality of the historical data. Contact information and the designated regions are listed below. Note that the Regional Co-ordinator for Philippines is yet to be designated.

Mr. Jim Lander/Alaska & US Pacific Coast

CIRES, University of Colorado
Campus Box 449
Boulder, CO 80309 USA
Tel: <1> (303) 497 6446
Fax: <1> (303) 497 6513
E-mail: jfl@ngdc.noaa.gov

Mr. Salvador Farreras/Central America

CICESE
Km.107 Carretera Tijuana-Ensenada
Apdo. Postal 2732
Ensenada, B.C., 22800 MEXICO
Tel: <52> (61) 745 050 Ext.24047
Fax: <52> (61) 750 574
E-mail: sfarrera@cicese.mx

Mr. Emilio Lorca/South America

Departamento de Geofísica
Universidad de Chile
Casilla 2777
Santiago CHILE
Tel: <56> (32) 282 697
Fax: <56> (32) 283 537
E-mail: elorca@dgf.uchile.cl

Dr. Willem de Lange/New Zealand/Tonga

Coastal Marine Group
Dept. of Earth Science
The University of Waikato
Private Mail Bag 3105
Hamilton 2001 NEW ZEALAND
Tel: <64> (7) 858 42 39
Fax: <64> (7) 856 0115
E-mail: w.delange@waikato.ac.nz
URL: <http://realjobs.org.nz/>

Dr. Kevin McCue/Australia, New Guinea and Solomon Islands

AGSO Seismological Centre
Australian Geological Survey Organisation (AGSO)
GPO Box 378
Canberra ACT 2601 AUSTRALIA
Tel: <61> (2) 6249 9675
Fax: <61> (2) 6249 9969
E-mail: kmccue@agso.gov.au

Dr. Ibnu Purwana/Indonesia

Head, Geophysical Division
Meteorological & Geophysical Agency
P.O. Box 3540
Jakarta 10720 INDONESIA
Tel: <62> (21) 424 64 74
Fax: <62> (21) 424 67 03
E-mail: ibnu@bmgo.id

Dr. Itsuo Furuya/Japan

Director, Earthquake & Tsunami Observations Division
Seismological & Volcanological Dept.
Japan Meteorological Agency
1-3-4 Ote-machi, Chiyoda-Ku
Tokyo 100-8122 JAPAN
Tel: <81> (3) 3212 8341
Fax: <81> (3) 3215 2963
E-mail: ifuruya@met.kishou.go.jp

Dr. Viacheslav Gusiakov/Kurile-Kamchatka

Institute of Computational Mathematics & Mathematical Geophysics
Pr. Lavrentieva, 6
630090 Novosibirsk
RUSSIAN FEDERATION
Tel: <7> (3832) 342 070
Fax: <7> (3832) 324 259
E-mail: gvk@omzg.sssc.ru
URL: <http://omzg.sssc.ru/tsulab/>

Dr. Doak C. Cox/Hawaii

Senior Fellow, Joint Institute Marine & Atmospheric Research
University of Hawaii
1929 Kakela Drive
Honolulu, HI 96822, USA
Tel: <1> (808) 949 7893
Email: 105215.575@compuserve.com

ITIC NEWS

TSUNAMI AWARENESS MONTH

In April, as part of the US National Weather Service Tsunami Awareness Month, Mike Blackford, along with several of the geophysicists from PTWC filled 7 speaking engagements at public libraries throughout Hawaii. Linda Sjogren, helped tend to the tsunami portion of the National Weather Service exhibit for the Earth Day Fair the University of Hawaii at Hilo.

SLAVA VISITS ITC

Viacheslav Gusiakov (Slava) visited ITIC in January to verify some of the data in the historical tsunami database (HTDB) against those in library sources. The weather was no perfect while he was here, but still warmer than Novosibirsk!

SUSANNAH RETIRES

After six years at the ITIC Susannah Eilenberg retired at the end of April in 1998. She was a mainstay at the Cen

through the terms of four ITIC Directors and provided a measure of continuity through the 90's. She has been replaced by an accomplished Librarian and Technical Assistant, Linda Sjogren. In the short time she has been at the ITIC she has proven to be a most valuable resource, particularly with respect to organization of the resource material we have available on Tsunamis at ITIC. Please feel free to contact her for advice on Tsunami references.

INTERNATIONAL TSUNAMI
INFORMATION CENTER - ITIC

737 Bishop Street Suite 2200
Honolulu, Hawaii 96813-3213
U.S.A.

Phone: (808) 532-6422/6423/6424
Fax: (808) 532-5576
Email: Michael.Blackford@noaa.gov
Email: Linda.Sjogren@noaa.gov

INTERNATIONAL TSUNAMI INFORMATION CENTER (ITIC)



[http://www.shoa.cl/oceano/itic/
frontpage.html](http://www.shoa.cl/oceano/itic/frontpage.html)

Located in Honolulu, the **International Tsunami Information Center (ITIC)** was established on 12 November 1965 by the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). In 1968, IOC formed an International Coordination Group for the Tsunami Warning System in the Pacific (ICG/ITSU). The present 25 Member States are:

Australia, Canada, Chile, China, Colombia, Cook Islands, Costa Rica, Democratic People's Republic of Korea, Ecuador, Fiji, France, Guatemala, Indonesia, Japan, Mexico, New Zealand, Nicaragua, Peru, Philippines, Republic of Korea, S Thailand, Russian Federation, United States of America, and Western Samoa.

ITIC is responsible, among other functions, for: **M**onitoring the international tsunami warning activities in the Pacific and recommending improvements with regard to communications, data networks, data acquisition, and information dissemination; **B**ringing to Member States and non-member States information on tsunami warning systems, on the affairs of ITIC and on how to become active participants in

the activities of ICG/ITSU; **A**ssisting Member States of ITSU in the establishment of national warning systems and improving preparedness for tsunamis in all nations throughout the Pacific Ocean; **G**athering and promulgating knowledge on tsunamis and fostering tsunami research and its application to prevent loss of life and damage to property.