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Tsunami Society International (TSI) Progress Review

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The following is a brief Progress Report on Tsunami Society International's (TSI) recent activities and accomplishments. TSI is an international professional society for scientists around the world who study all aspects of tsunami hazards. The Society's mandate is to disseminate knowledge about tsunamis to scientists, officials, the media and the public, and to promote the awareness and mitigation of tsunami hazards through the sponsorship of workshops, meetings and symposia, and through our professional "Science of Tsunami Hazards" (STH) journal, the Society's web pages and other venues. Also, TSI provides a focus for discussion and interactions among its members, government agencies and the public – throughout the world.

The Society's STH journal is now in its 33rd year of continuous publication since 1982. STH is peer-reviewed and the only journal in the world dealing exclusively with tsunamirelated research - combining high qualitative and quantitative standards of content, as well as international diversity of authorship and citations. Thus, STH is well regarded for its uniqueness and depth of coverage and enjoys worldwide popularity. Published quarterly on a regular basis, the STH journal is the most appropriate resource for worldwide readership of scientific papers on tsunami hazards and for anyone working on tsunami-related research projects.

Ongoing Journal Work: "Science of Tsunami Hazards" (STH).

STH is a Certified, OPEN ACCESS Journal included in the prestigious international academic journal database DOAJ maintained by the University of Lund in Sweden with the support of the European Union. "SCIENCE OF TSUNAMI HAZARDS" is also preserved and archived at the National Library, The Hague, Netherlands and at the U.S. Library of Congress, in Washington D.C., USA. Older issues are also archived at the US Los Alamos Laboratory Library. Furthermore, STH is included in EBSCO and ELSEVIER and SPRINGER Publishing databases, which give the journal additional global exposure and readership in the databases of 90% of the academic institutions worldwide, including nation-wide access to databases in more than 70 countries.

In addition to the publication of four issues of the "Science of Tsunami Hazards" per year, TSI participates with DOAJ, the University of Lund in Sweden, the European Library at the Hague and European research libraries to help digitize all past articles in "SCIENCE OF TSUNAMI HAZARDS", so they can be searchable online with the submission of metadata. We spend a great deal of time in this effort so that we can increase, even more, the visibility and usage of past and recent articles included in our Journal.

All past publications of the journal have been archived and we continue the processing and the systematic compressing of individual files to even smaller sizes to facilitate faster browsing and downloading. We are constantly optimizing our electronic database, improving the ranking of our website and registering the STH journal with prestigious databases for listing - so as to meet the increased, international scientific demands for tsunami data (which became significantly greater since the 2004 Indian Ocean, the 2010 Chilean, the 2011 Japan, the 2012 Canada and the 2013 Solomon Island tsunamis.

2012 Conferences and Symposia.

Tsunami Symposium In Ecuador

During June 2012, Tsunami Society International (TSI) co-sponsored and provided training at a Tsunami Symposium entitled "*Simposio-Taller Internacional "Tsunamis, Costas Ecuatorianas y Galapagueñas 2012,* held at the Instituto Oceanografico de la Armada (INOCAR) headquarters in Guayaquil, Ecuador. The training was sponsored by the Instituto Panamericano de Geografía e Historia, Sección Nacional Ecuador and - in addition to TSI – by the Polytechnic School of the Army (ESPE), INOCAR, the National Secretariat of Risks (SNGR), the Research Center for Geophysical Research of the State University of Santa Elena (UPSE) and by several national and international institutions and universities in the region.

TSI provided three training presentations for the seminar. Particular emphasis at this Symposium was placed on the impact of tsunamis in Ecuador and the Galapagos Islands from South America earthquakes and from far-field sources. The training

provided by TSI included some of the appropriate guidelines and methodology needed for the evaluation of the tsunami risk in terms of frequency of occurrence, severity of impact, design adequacy of important coastal structures and, finally, in terms of preparedness and planning for hazard mitigation. Special attention was given to the potential for tsunami generation along the Colombia/Ecuador subduction margin and the Dolores-Guayaquil Mega-thrust. TSI signed the certificates awarded to participants. As a Subsequent to the training, a visit was made to the INOCAR Tsunami Station at Puerto Ayora, on the Island of Santa Cruz in the Galapagos, where an assessment was made of the impact of the 2010 Chilean tsunami. In addition to Santa Cruz Island, additional assessment of the effects of the 2010 tsunami were made on the southern shores of Baltra, Isabela and San Cristobal Islands.



Global Risk Forum, Davos

TSI endorsed and co-sponsored as a working partner, the Global Risk Forum in Davos, Switzerland during August, 2012, peer-reviewing submitted papers within TSI's scope (s) of expertise. TSI has been asked to also endorse and co-sponsor the 2014 Global Risk Forum in Davos.

Fifth International Tsunami Symposium, Ispra, Italy

From September 1st-3rd, 2012, TSI held - in conjunction with the European Commission's Joint Research Centre (JRC) in Ispra, Italy - a very successful 5th International Tsunami Symposium. Ispra is a small town on the eastern shore of Lake

Maggiore, very close to Milan, in the province of Varese (Lombardy, northern Italy). The Symposium was hosted by Dr. Delilah Al Khudhairy, the Director of the Global Security and Crisis Management Unit of EC-JRC and by Dr. Alessandro Annunciato, both providing valuable logistical support that contributed to the Symposium's success. The 3-day Tsunami Symposium was held at the large Amphitheatre of EC-JRC. In view of the great Tohoku earthquake and tsunami, emphasis in the Symposium program was given to the destruction of coastal areas on the Island of Honshu in Japan and to safety issues pertaining to nuclear power plants to avoid what happened at the Fukushima Daichi plant.

5th Tsunami Symposium participants had the opportunity to visit the European Crisis Management Laboratory at the EC-JRC - a state-of-the-art facility - and observe in realtime the ongoing investigation of a major and potentially tsunamigenic earthquake in Costa Rica - which occurred at the conclusion of the third day's session. The Symposium was also highlighted by a banquet and an <u>awards ceremony</u> held at the Atlantis Resort in Arona, a wonderful site on the other side of Lake Maggiore.

Dr. Charles L. Mader was presented with the Tsunami Society International's life-long award for his research work at the U.S. Los Alamos Scientific Laboratory, his close cooperation on tsunami research with scientists at the University of Hawaii, for his publication of books on "Numerical Modeling of Detonations" and the two editions of "Numerical Modeling of Water Waves".

Dr. Alessandro Annunziato, of EC-JRC was presented the award of Tsunami Society International for his work on Nuclear Engineering and more specifically on the Design Basis Accident Analysis of reactors and Fuel Coolant Interaction in case of Severe Accidents, as well as his involvement at the European Commission's Joint Research Centre (EC-JRC) in Ispra, Italy, in the development of Crisis Management Technologies and Tools and all the automatic procedures for the analysis of Tsunamis in real time that is currently in use at the Crisis Room of EC-JRC.

Professor Barbara Thielen-Willige was presented with the award of Tsunami Society International for her work at Berlin University of Technology, Institute of Applied Geosciences and at the Bureau of Applied Geoscientific Remote Sensing in Germany, in the fields of GeoInformation Systems (GIS) and the integrated geomorphologic and geologic evaluation of satellite imageries and aerial photographs.

Professor Tomoya Shibayama was presented with the award of Tsunami Society International for his outstanding research work in Civil, Environmental and Coastal Engineering at Waseda University in Tokyo and as Director of the Composed Crisis Institute, for his thorough evaluation of the 2011 Tohoku tsunami disaster with emphasis on future coastal protection that will help mitigate the impact of tsunamis in Japan.

Professor Dan Palermo was presented with the award of Tsunami Society International for his engineering research work at the University of Ottawa on tsunami loads on infrastructure facilities and on experimental and numerical modeling of tsunami-induced hydrodynamic forces on structures.

Professor Efim Pelinovsky was presented with the award of Tsunami Society International for his research work on fluid dynamics with emphasis on tsunamis, at the Nizhny Novgorod State University, the Institute of Applied Physics of the Russian Academy of Sciences in Novgorod, as well for his research at the State Technical University and at the Higher School of Economics.



2013 Activities

Weltanschauung Worldview Media Centre (WWMC) - India

In 2013, Tsunami Society International fully supported, endorsed and assisted Weltanschauung Worldview Media Centre (WWMC) in India to create a multi media tribute for the thousands of victims of the 2004 Asian Tsunami. Such a tribute is long overdue. We believe that these multi media products – when completed - will receive distribution throughout India and perhaps throughout the region.

"PACEM IN MARIBUS XXXIV - INTERNATIONAL FORUM ON WORLD OCEAN REVIEW - Leadership Seminar on Tsunamis, 4-6 September 2013 – Bangkok, Thailand.

The Society was invited to be a working partner and to endorse and assist the International Ocean Institute in Malta, the University of Malta, UNESCO, the Intergovernmental Oceanographic Commission and the organizers of the "Pacem In Maribus XXXIV - INTERNATIONAL FORUM ON WORLD OCEAN REVIEW" for the Forum program to include a Leadership Seminar on Tsunamis. PIM XXXIV was officially

endorsed by the UN-Secretary General and the Thailand Government. Specifically, Tsunami Society International was requested to recommend several speakers among its members for inclusion in the program and to assist with the formulation and agenda of the Seminar which was a main event and well attended. It was held from 4-6 September 2013, at the Centara Grand Hotel at Central Plaza Ladprao, in Bangkok, Thailand. On behalf of the Tsunami Society, two plenary presentations were made by the Society's President. Significant assistance was provided subsequently in the drafting of the final resolutions and recommendations of "Pacem In Maribus XXXIV and its review of what constitutes sustainable development and governance of the World's Oceans in relation to efforts in achieving the Millennium Development Goals formulated by the United Nations "Rio+20" Conference.





First International Saudi Conference on Crisis and Disaster Management, September 8-9, 2013, Riyadh, Saudi Arabia.

The Society assisted with the program for the First International Saudi Conference on Crisis and Disaster Management, which was held on September 8-9, 2013, in Riyadh, Saudi Arabia, under the patronage of the custodian of the two Holy Mosques, King Abdullah bin Abdulaziz, at the Imam Mohammad Ibn Saud Islamic University (IMSIU). The President of Tsunami Society International, George Pararas-Carayannis, was main speaker and received an award on behalf of the Society.





Publication and Distribution of SCIENCE OF SCIENCE OF TSUNAMI HAZARDS

For more information on Tsunami Society International activities and tsunami research papers published in SCIENCE OF TSUNAMI HAZARDS, in the last 33 years, please visit our website at: http://www.tsunamisociety.org

Field investigation of the 12 October 2013 Earthquake in Western Crete.

On 12 October 2013 a significant earthquake with epicenter off the Western Coast of the Island of Crete, in Greece, struck the region. The epicenter of the earthquake was in the same area where the 365 A.D. earthquake generated a catastrophic tsunami that devastated coastal cities throughout the Eastern Mediterranean. A comprehensive survey was undertaken to determine the extent of damage by the 12 October 2013 earthquake and whether a tsunami was generated. The survey covered the west coast of Crete from the area of Ancient Falasarna to Elafonisos on the southern tip of the island and included inspection of sediment deposits and interviews with local residents. Fortunately, the earthquake damage was minor and most of the vacationers along the beaches immediately run to higher ground when the quake's motions were felt. No evidence of a tsunami was detected from the observations.

Miscellaneous Other Activities

Miscellaneous other activities included reviews of papers submitted to journals and conferences, assessments of tsunami and other disaster-related proposals submitted to the U.S. National Science Foundation (NSF), to the United Nations Development Program (UNDP – Afghanistan risk assessment project), and to other international agencies. Also, in close co0peration with scientists at the National University of Costa Rica, logistical arrangements were made for the forthcoming 6th International Tsunami Symposium of the Society, in Nicoya, Costa Rica (2-5 September 2014).