



# August 2007 US IOTWS Program Update

US Indian Ocean Tsunami Warning System (IOTWS) Program

from advanced technologies to resilient communities

## Inaugural Course Held under the International Tsunami Training Institute

July 21–August 2, 2007, Seattle, Washington, USA



Brian Atwater, USGS, shows tsunami evidence in Willapa Bay, Washington Thirty-one disaster managers from the region participated in the inaugural twoweek training course in Seattle, Washington, under the International Tsunami Training Institute (ITTI). This accredited training program was offered jointly through the University of Washington and the Asian Institute of Technology (AIT). Through a combination of lectures, group exercises, simulations, and field visits, participants strengthened their understanding of forecasting and detection, hazard assessment, and community preparedness and response. These capacities are all vital for ensuring the operation and maintenance of end-to-end early warning systems. Several members of the US IOTWS Program participated as course instructors. Faculty from AIT observed the course to prepare for a similar offering in Bangkok, Thailand, in 2008.

## Warning Communications Capacity Strengthened from National Level to the "Last Kilometer" August 6-10, 2007, Colombo, Sri Lanka

The Sri Lankan Disaster Management Center (DMC) and the National Oceanic and Atmospheric Administration (NOAA) conducted a hands-on training course on the use of radio satellite technology (RANET) to download and distribute warning messages at the local level. RANET is a low-cost communications technology that creates last-kilometer linkages in the end-to-end warning system. At a follow-on workshop, participants from Sri Lanka and the Maldives received the "Tsunami Warning Resource Guide" which describes the resources required to create a system (equipment, expertise, and partnerships) and provides an overview of an end-to-end Concept of Operations (CONOPS). Participants identified challenges and opportunities for enhancing their tsunami warning systems, as well as strategies to improve these systems and communications between relevant agencies.



Hands-on training to operate RANET satellite radios

## Regional Disaster Management Specialists Assess Progress on Early Warning Systems

#### August 13-14, 2007, Sanur, Indonesia

More than 40 disaster management specialists met in Indonesia to conduct a critical review of the current status of the development of early warning systems in the Indian Ocean region. Organized by the US IOTWS Program, the workshop provided an opportunity for participants to highlight key successes and failures, as well as identify areas needing improvement in the development of the regional system. Participants from Australia, India, Indonesia, Sri Lanka, the Maldives, and Thailand shared information on the current status, progress, and experiences regarding tsunami warning and evacuation simulation exercises. The lessons learned will be incorporated into a document that will be distributed throughout the region.









## Partners for Coastal Community Resilience Share Experiences and Finalize CCR Guide

#### August 14-16, 2007, Sanur, Indonesia

Participants representing 30 organizations in the region Thailand, Indonesia, Sri Lanka, and the Maldives shared results from community assessments and field work conducted in the region, which will provide critical information to support finalization of the Coastal Community Resilience (CCR) elements, resilience benchmarks, and assessment methodologies. The Second Regional Coastal Community Resilience Workshop in Indonesia also provided "Resilience in Action" examples that will enrich the final version of the CCR guide. The guide includes the assessment methodology and supporting resources, and will be distributed in October 2007. A strategic alliance of international organizations focused on institutionalizing CCR in the Indian Ocean region will meet in December 2007 to explore strategies for sustaining the CCR initiative.

### Hawaii-Banten Exchange on State- and Local-level Approaches to Tsunami Warning

#### August 25-31, 2007, Banten, Indonesia, and Hawaii, USA

An exchange between Banten Province and the State of Hawaii on local disaster warning culminated in a concrete plan for a tsunami warning simulation in Banten in December 2007. The trip opened possibilities for collaboration on disaster and response planning, economic partnerships, and sister-state relationships. Banten and Hawaii share many characteristics, including coastal tourism, threats from local tsunamis, and volcanoes. A delegation of 10 Indonesians visited the counties of Oahu and Hawaii islands to learn about state and local level approaches for warnings on tsunamis and other hazards. The governors of Banten and Hawaii, municipal and state representatives, and technical specialists participated.



**US IOTWS Prograr** 

Officials and technical specialists review a map of Banten

#### Thai Scientists Trained on Operating and Interpreting Data from the DART Network August 27-29, 2007, Bangkok, Thailand

A core group of 25 engineers and scientists responsible for Thailand's tsunami warning system have gained new skills and knowledge on the use, operation, and maintenance of the U.S.-designed Deep-ocean Assessment and Reporting of Tsunamis (DART) system. The hands-on training familiarized participants with the instrument, data formats and protocols, and various tools that will be applied in its operational warning center for detecting, analyzing, and forecasting tsunamis using critical sea-level data now available to Thailand's National Disaster Warning Center (NDWC) and the Thai Meteorological Department (TMD). The National Oceanic and Atmospheric Administration (NOAA) conducted the seminar for NDWC, TMD, the Royal Thai Navy, and other agencies to provide a comprehensive overview of NOAA's DART tsunameter technology and its uses.

## UPCOMING US IOTWS PROGRAM AND RELATED ACTIVITIES

- Thailand ICS Basic/Intermediate Training, September 17-21, 2007 Bangkok, Thailand
  - For more information contact SHM Fakhruddin at fakhruddin@adpc.net
- DART Deployment and Launch Ceremony, September 19, 2007 Indonesia

For more information contact Stacey Tighe at stighe@cbn.net.id

US IOTWS Program Transition Workshop, December 6-7, 2007 Bangkok, Thailand

For more information contact Peter Collier at pcollier@iotws.org

#### About the US Indian Ocean Tsunami Warning System (IOTWS) Program

The US IOTWS Program is part of the international effort to develop tsunami warning system capabilities in the Indian Ocean following the December 2004 tsunami disaster. The US program adopts an "end-to-end" approach—addressing regional, national, and local aspects of a truly functional warning system—along with multiple other hazards that threaten communities in the region. In partnership with the international community, national governments, and other partners, the US program offers technology transfer, training, and information resources to strengthen the tsunami warning and preparedness capabilities of national and local stakeholders in the region. For more information please visit www.us-iotws.gov.

U.S. Agency for International Development www.usaid.gov US IOTWS Program Update – August 2007 U.S. Contribution to the Indian Ocean Tsunami Warning System