



December 2006 US IOTWS Program Update

U.S. Indian Ocean Tsunami Warning System (IOTWS) Program
from advanced technologies to resilient communities

Thailand Launches First “DART” Tsunami Warning Buoy for Indian Ocean Region December 1-8, 2006, Phuket, Thailand

Thailand’s National Disaster Warning Center (NDWC) and USAID, in cooperation with the Thai Meteorological Department, the Thai Ministry of Foreign Affairs, and the U.S. National Oceanic and Atmospheric Administration (NOAA), hosted a launch ceremony on December 1, 2006, in Phuket, Thailand, immediately before the first deployment of a U.S.-built tsunami detection buoy in the Indian Ocean. Under the USAID-funded Indian Ocean Tsunami Warning System (US IOTWS) Program, the U.S. Government donated the Deep-ocean Assessment and Reporting of Tsunamis (DART) II station and provided technical assistance through NOAA during the deployment and initial operation. High-level officials from the U.S. Government and the Royal Thai Government attended, including the U.S. Ambassador Ralph Boyce and the Acting Mission Director of USAID’s Regional Development Mission for Asia Richard Whelden. Although there are 20 DART stations deployed across the Pacific and Atlantic Oceans, this is the first operational buoy launched in the Indian Ocean reporting ocean observation data directly to the World Meteorological Organization (WMO) Global Telecommunications System for early warning. Hours after deployment, the buoy began transmitting real-time data that is available for any country to access on global networks. The Pacific Tsunami Warning Center in Hawaii and future warning centers in the region also have access.



US and Thai engineers posed in front of the DART II buoy before its deployment at 9°N 89°E, midway between Sri Lanka and Thailand

NEW ON THE US IOTWS PROGRAM WEB SITE

The following document is included on the web site at www.us-iotws.gov

Indonesia’s Seismic Monitoring System: Mission #3 Assessment and Recommendations

Coastal Community Resilience Guidebook Field Testing in Ranong, Thailand December 10-15, 2006

A team comprised of professionals from the Asian Disaster Preparedness Center, the University of Rhode Island, and the Program Integrator for the US IOTWS Program field tested resiliency benchmarks in the Coastal Community Resilience Guidebook. This activity was carried out in the tsunami-affected province of Ranong,



Thailand, in collaboration with USAID's Post-tsunami Sustainable Livelihoods Program. Based on the results from the field, the team will refine the guidebook and assessment methodology, which will be used for country-level training on assessing resilience and developing local action plans. The testing included various levels of consultation and interviews with community members, local officials, and other government and non-government agencies professionals in the Kamphuan sub-district of Ranong.

Roundtable Discussions on Coastal Community Resilience in Indonesia

December 18, 2006

The US IOTWS team held a roundtable on the Coastal Community Resilience (CCR) initiative in Jakarta on December 18, 2006, to gain partnership commitments with local organizations such as the Indonesian Red Cross (PMI), Mercy Corps, Save the Children, Islamic Relief, UNESCO Indonesia, Yayasan IDEP Foundation, and others. Roundtable members discussed how CCR can be strengthened through these emerging partnerships. The agency representatives showed a great deal of interest in incorporating the CCR framework into their future activities, as well as participating in the upcoming national CCR training in Indonesia and the regional workshop later this year.



Roundtable members discuss strengthening coastal community resilience in Indonesia

Astri Suryandari

RANET Used to Warn Communities in Bali Tsunami Evacuation Drill

December 26, 2006

Under the US IOTWS Program, NOAA worked with Indonesia's Meteorological and Geophysical Agency (BMG) to provide training through the RADio and InterNET for the Communication of Hydro-Meteorological and Climate-Related Information program, or RANET. NOAA developed RANET as a community-based emergency communications system to reach the "last mile" in developing countries and remote locations. To move critical information from city centers to rural populations, the program has combined unique satellite broadcast capacities with Internet applications and the use of FM radio, HF radio, and other land-based broadcasting. Throughout the summer of 2006, RANET prepared and retooled its broadcast on the WorldSpace AsiaStar satellite to accommodate warning information. The satellite broadcast capability has been integrated with the BMG 5-to-1 warning system, which is intended to provide five ways to send or receive one warning. Following the integration of the two systems, RANET and BMG conducted several tests in early December, which demonstrated an ability to disseminate a warning from the point of production to the point of reception within 2.5 minutes.

On December 26, 2006, Indonesia's resort island of Bali conducted a tsunami evacuation drill on the two-year anniversary of the tsunami disaster that killed 230,000 people around the Indian Ocean. The drill included real-time warnings sent from Jakarta, the capital, to radios along the beach, and aimed to raise awareness and test new technologies for early warning. RANET contributed to the live drill by sending emergency information through Indonesia's warning system to local operators, who sounded alarms or issued evacuation instructions. Additional receiver sites will be rolled out in Indonesia by early summer 2007.



Rescue workers simulate an evacuation on Kuta beach, Bali

ABC News Online

Seismic Detection Equipment Installed on Sumatra

December 2006

The U.S. Geological Service (USGS) installed two new accelerometers on Sumatra. An accelerometer is an instrument for measuring acceleration or detecting and measuring vibrations. The USGS team also surveyed nearby locations for three sites where broadband seismometers will be installed alongside other instruments. This equipment, which will improve the accuracy of seismic detection, will be shipped to Padang in May-June, 2007, and installed by September 2007.

Tsunami Geology Field Research in India

November 30–December 14, 2006

India's greatest known tsunami before December 26, 2004, came from the Arabian Sea on November 28, 1945. It reached heights up to 10 meters in Gujarat, 15 meters near Karachi, and reportedly swept away 15 people near Bombay. In December 2006, an international team supported by the US IOTWS Program conducted field research in Gujarat's tsunami-prone areas near Kandla, India's fifth-largest port. To promote awareness of northwest India's tsunami hazards, the team will collect and disseminate eyewitness accounts and written records of what one elderly resident called "the sea gone mad."



Brian Atwater

Temple caretakers near India's fifth-largest port tell Gujarati geologist Mahesh Thakkar (right) about storm surges

UPCOMING US IOTWS PROGRAM AND RELATED ACTIVITIES

Inundation Modeling Training

Melbourne, Australia

For more information contact: Tony Elliott, Bureau of Meteorology at t.elliott@unesco.org

January 10-19, 2007

Seismic Hazards Training

Bangkok, Thailand

For more information contact: Shane Detweiler, USGS, at shane@usgs.gov

January 16-19, 2007

Advanced Seismology and Tsunami Studies

Indonesia

For more information contact: Shane Detweiler, USGS, at shane@usgs.gov

January 30- February 16, 2007

Basic and Intermediate ICS Training

Colombo, Sri Lanka

For more information contact: Trudie Mahoney, USFS, at tmahoney@fsip.net

February 20-23, 2007

National Coastal Community Resilience Training

Sri Lanka

For more information contact Atiq Ahmed, US IOTWS, at atiq@iotws.org

February 26-30, 2007

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

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