

# Andaman Wave 2007

## Thailand sets the bar for Indian Ocean Tsunami Simulations



Fakhruddin, U.S. IOTWS Program

“We learn best when we make mistakes. With tsunami warning systems, every step needs to go perfectly so the people on the beach can be kept fully informed and feel safer. If we pin down the weak points now, we can fix them and make sure the system will work in case there is a real disaster.”

Dr. Smith Dharmasaroja, Chairman  
Committee of National Disaster Warning Administration

### Andaman Wave 2007

On July 25, 2007 the Government of Thailand set a major milestone in the development of tsunami warning system capabilities in the Indian Ocean region, holding the largest tsunami warning exercise of its kind to date, Andaman Wave 2007. Six tsunami vulnerable provinces along the Andaman coast participated in a test of the country’s warning system procedures which included the activation of 79 siren towers and evacuation of communities along the coast. The exercise was heralded as a major success in terms of achieving high levels of participation, raising awareness, showcasing effective warning system operations, and identifying areas for improvement. The exercise represented the culmination of a two-year effort under the USAID funded US Indian Ocean Tsunami Warning System (IOTWS) Program to help Thailand develop its capacity for rapidly issuing tsunami alerts, and to promote regional sharing of the experience.

### US IOTWS Program simulation support

USAID regional efforts and support to Thailand’s National Disaster Warning Center (NDWC) were critical to enabling the Thai government to develop and execute the simulation. USAID provided a Deep-ocean Assessment and Reporting of Tsunami (DART) buoy launched in December of 2006, the only instrument of its kind to date in the Indian Ocean, which provides real time readings related to tsunami events. The NDWC utilizes the scientific data from the DART buoy and seismic activity reports provided through an agreement with the U.S. National Oceanic and Atmospheric Administration (NOAA)/Pacific Tsunami Warning Center (PTWC) to



AFP, Getty Images

Top: One of 79 warning towers on the Andaman Coast successfully tested during the Andaman Wave 2007 tsunami simulation exercise.

Bottom: Community members in Phuket evacuate as part of the tsunami drill.





Dr. Smith Dharmasaroja fields questions from international observers during a simulation planning table top exercise.

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Development Agency (USTDA) has assisted Thailand in the development of its Concept of Operations (CONOPS) which outlines hardware and software requirements to support early warning decision making processes. The U.S. Department of Agriculture's Forest Service (USDA/FS) developed and implemented a Tsunami Alert Rapid Notification System (TARNS) with NDWC disaster managers to create a "master" plan covering technologies and procedures to deliver disaster warnings in Thailand. The success of TARNS which culminated in the implementation of the simulation exercise on 25 July, has led to steps to replicate it as a model for other Indian Ocean Countries.

#### **International observers take lessons home**

International observers from over 40 countries including the Indian Ocean countries of Indonesia, Sri Lanka, and the Maldives, whose participation was supported by the US IOTWS program, had a unique opportunity to exchange experiences and learn with Thai disaster management counterparts. Observers participated in a number of events connected to the drill including undertaking a table top exercise, observing actual simulation events in the central command post at the National Disaster Warning Center in Bangkok, participating in a community evacuations and providing feedback in a formal "after action" review. US, regional, and Thai officials each recognized the compounded value afforded by the international exchange. Regional participants saw the simulation as offering immediate concrete lessons to take home, including important steps to improve elements of their own disaster management systems, continued exchange of important scientific and technical information, and the creation of new bilateral relationships.

#### **Media Links: "Tsunami drill earns praise"**

National and international press coverage of the event highlighted the importance of the Andaman Wave 2007 for the region. Sample stories can be found on the links below:

<http://nation>

- [http://nationmultimedia.com/2007/07/26/national/national\\_30042492.php](http://nationmultimedia.com/2007/07/26/national/national_30042492.php)
- [http://www.bangkokpost.com/breaking\\_news/breakingnews.php?id=120440](http://www.bangkokpost.com/breaking_news/breakingnews.php?id=120440)
- <http://www.iht.com/articles/ap/2007/07/25/asia/AS-GEN-Thailand-Tsunami-Drill.php>
- [http://www.channelnewsasia.com/stories/afp\\_asiapacific/view/290263//.html](http://www.channelnewsasia.com/stories/afp_asiapacific/view/290263//.html)

The U.S. 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 U.S. 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 U.S. 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](http://www.us-iotws.gov).