

**UNESCO/IOC INTERNATIONAL TSUNAMI INFORMATION CENTRE
ITSU TRAINING PROGRAMME (ITP), 5-16 November 2007**

The 2007 UNESCO/IOC ICG/ITSU Training Programme will be held 5 to 16 November 2007 in Honolulu, Hawaii, USA. The Program, under the direction of the International Tsunami Information Centre (ITIC), provides participants with an overview of the history and operation of the Pacific Tsunami Warning and Mitigation System. Specific focus is given to the important role of regional and national tsunami warning centers in monitoring and evaluating the tsunamigenic potential of earthquakes, and in issuing timely tsunami warning messages to government emergency officials who can then act to save lives and reduce damage to coastal communities. The Programme provides training and familiarization with the Pacific Tsunami Warning System, Sub-regional and National Warning Systems, and Civil Defense concepts of operations and standard operation procedures. The ITP-Hawaii uses Hawaii as a working example of an end-to-end tsunami warning and mitigation system demonstrating close stakeholder coordination and partnership for operational warnings and in preparedness activities.

Participants will engage in a series of informational presentations at ITIC and the Pacific Tsunami Warning Centre, and visits to Emergency Operations Centers, to seismic or water level station field sites, and to the University of Hawaii. A 2-day off-island field trip to visit the Hawaii County Civil Defense Agency, the Pacific Tsunami Museum, and several tsunami memorials is included, as well as attendance at a technical earthquake advisory meeting where science and engineering professionals, state and county officials will discuss ongoing efforts to mitigating seismic risks in Hawaii. Additional topics covered by the Training Programme will be based on the needs of each participant. A Provisional Agenda is attached. The Programme will officially end on the Big Island on Friday, 16 November 2007. If interested, participants are invited to extend their stay for one day to attend a free public outreach seminar on earthquake/hurricane preparedness to be held the following morning (17 November 2007).

This year, the focus will be on Standard Operating Procedures for tsunami warning and tsunami emergency response, and the testing of SOPs through Drills and Exercises. Special emphasis will also be given to telecommunications and methods for receiving and disseminating timely alerts, such as through the EMWIN and RANET systems. Participants will be asked to create, modify, and discuss their country SOPs using guidance and template examples provided during the Training.

At the beginning of the Programme, participants will be expected to make a 15-20 min presentation on the status of tsunami mitigation measures in their respective countries.

Within one month after returning to their countries, ITP participants are asked to submit a Written Trip Report in English describing the activities they participated in, what they learned, and how they will use their training to improve tsunami warnings and/or awareness in their countries. Trip Report summaries will be published in the ITIC's Tsunami Newsletter.

PROVISIONAL AGENDA, ITP-Hawaii 2007

Sat, 3 November 2007 Arrival, hotel check-in, orientation

Sun, 4 November 2007

Mon, 5 November

ITIC

Morning:

Programme Logistics. ITIC Internet and Library Usage.

ITP-Hawaii Participant – Country Presentations

Afternoon:

Science Overview – Earthquakes, Tsunamis - generation, detection

Tsunami Teacher Resource Toolkit

Tues, 6 November

ITIC

Morning:

PTWS, ITIC, and PTWC: Organization & Operations

International and National Tsunami Warning and Mitigation Systems

Requirements & Implementations

Regional and Local Tsunami Warning Systems for Hawaii

Other Stakeholders & Their Needs, Roles & Responsibilities

Afternoon:

Hazard Assessment and Risk Evaluation overview

Tsunami modeling and inundation mapping

Global Interactive Historical Tsunami Database (ITDB)

Wed, 7 November

ITIC

Makapuu, Oahu

Morning:

PTWC Standard Concept of Operation and Standard Operating Procedures

as PTWS International Tsunami Warning Center

as US National and Hawaii Regional Tsunami Warning Center

Seismic & Water Level Instrumentation used for tsunami warning

Afternoon:

Visit Makapu'u Sea Level Station

Thurs, 8 November

ITIC

Hawaii SCD

Morning:

Monitoring, Detection and Evaluation Instrumentation and Methodologies

(seismic, water level, communications):

Communication technologies for the transmission of tsunami warnings

to local governments and communities – robustness, reliability, redundancy criteria

for emergency communications – WMO GTS, EMWIN, Fax, Email, RANET, FM

methods, Mobile/Cell phones, SMS, etc

Afternoon:

Visit State Civil Defense Emergency Operations Center

State Emergency Agency Responses to PTWC Tsunami Messages

Fri, 9 November

ITIC

Oahu CD

Morning:

Tsunami Emergency Response (TER) Plans

Concept of Operations

Tsunami "End to End" Response Process

Understanding and interpreting PTWC Bulletins - "Upstream" Process

Conducting public coastal evacuations - "Downstream" Process

Communications Process

Distinguishing the roles of government jurisdictions, non-

government organizations (NGO's), private sector

Distinguishing the roles of individual response agencies

Tsunami Stakeholder Coordination Concept

Using Civil Air Patrol for Tsunami Warning alert dissemination

Afternoon :

Visit Oahu County Civil Defense Emergency Operations Center

County Emergency Agency Responses to PTWC Tsunami Messages

**Sat & Sun
10-11 November**

Free days

Mon, 12 November
PTWC

Visit PTWC and HON Seismic station
PTWS TWC Operations Tour
Seismic Monitoring (source location and magnitude estimation)
Sea Level Monitoring (Coastal and DART stations)
Monitoring (Tide Tool)
Wave forecasting (SIFT)
Creating TWC Standard Operating Procedures (SOP) and Checklists
Introduce template of best practices.
Participant creation of SOP's and Checklists
(Discussion/Sharing on 16 November)

Tues, 13 November
ITIC

Creating TER Standard Operating Procedures (SOP) and Checklists
Templates and examples of best practices.
Participant creation of SOP's and Checklists
(Discussion/Sharing on 16 November)
Planning a Tsunami Exercise
Example : Exercise Pacific Wave '06 Manual and Concepts

Wed, 14 November
ITIC

Check out of hotel
Tsunami Mitigation – Education, Outreach, Mitigation
Countermeasures Awareness, and Public Policy, including
ITIC Awareness and Educational Materials
Public Affairs and media, Tourism sectors, TsunamiReady programme
Designing buildings to withstand tsunami and earthquake shaking

Depart for Big Island

Thurs, 15 November
Big Island

Hawaii County Civil Defense Emergency Operations Center
Pacific Tsunami Museum, Donna Saiki, Director
Tsunami memorials
Optional: visit to Hawaiian Volcano Observatory and Kilauea Volcano

Fri, 16 November
Big Island

Hotel Check-out
9 am – 11:30 am
Roundtable discussion – Tsunami Warning and Mitigation
Participant sharing of SOP's and Checklists
PTWC, ITIC, Hawaii County CD, ITP-Hawaii participants

11:30 am - 2:30 pm
Hawaii State Earthquake Advisory Committee

2:30 pm:
Future Directions, International and National
Travel vouchers and other logistics
Summary and Closing

Return to Honolulu; Depart for home country

Sat, 17 November

Optional 1-day extension
Morning: participation to Public Outreach Seminar: Earthquake/Hurricane Preparedness and Damage Mitigation for Homeowners, Hilo, Hawaii, Free seminar sponsored by the Structural Engineers Society of Hawaii and Hawaii Earthquake Advisory Committee