

UNESCO-IOC
Strengthening tsunami Warning and Emergency Responses:
Training Workshop on the Development of End-to-End Tsunami Standard Operating
Procedures (SOPs)

Vietnam, 8-10 December 2008

COURSE MANNUAL
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3. Pacific Tsunami Warning and Mitigation System

- a. PTWS Information Sheet
- b. Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System – Fact Sheets

4. Tsunami Early Warning System Overview

- a. End-to-End Tsunami Warning – An Overview
- b. Tsunami Science and Modelling – Essentials
- c. A Global Tsunami Reduction Strategy: Building Effective Tsunami Warning and Mitigation Systems
- d. End to End Tsunami Warning - Stakeholders, Roles and Responsibilities, Standard Operating Procedures, and their Linkage
- e. Concept of Operations for End-to-End Tsunami Response and Standard Operating Procedures for Tsunami Early Warning and Mitigation System
- f. Types of documentation to support Global Tsunami Warning Systems and/or National Tsunami Warning Centre and Tsunami Emergency Operations Centre operations
- g. Developing Early Warning Systems: A Checklist (EWC III, 2006)
- h. End-to-end Tsunami Warning Considerations: Public Alert Systems
- i. Alerting Technologies
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5. Tsunami Warning Centres - Guidance and Templates

- a. Tsunami Warning Centres – An Overview
- b. Tsunami Message Product Codes – WMO Headers
- c. National Tsunami Warning Centre SOP Templates - 4 NTWC Cases: Seismic / No Seismic Monitoring - Local / Distant Tsunami Threats

- d. NTWC SOP (Guidance and Samples) – draft December 2008
- e. PTWS Operational Users Guide – Selected Annexes
 - i. Annex III. Interpretation of PTWC Messages and Emergency Response Guidance
 - ii. Annex IV. Sea Level Measurement
 - iii. Annex VI. Tsunami Wave Forecasting
- f. Tsunami Warning Centre Operations Manual – PTWC example System, processing, products, flow charts, checklists, and abbreviated SOPs (cheat sheets)
- g. PTWS Operational Users Guide – PTWS System, including PTWC and JMA Communications Methods and Message Content

6. Tsunami Warning Centres - Case Studies

- a. Lessons Learned from Past Tsunami: Highlights from Indian and Pacific Oceans
- b. Case Study – Local Tsunami: 17 July 2006, Java, Indonesia

7. Tsunami Emergency Response – Guidance and Templates

- a. 10 Steps to Enable a Successful Tsunami Emergency Response
- b. Glossary – Disaster Management Organizations
- c. Tsunami Planning Template
- d. New Zealand Tsunami Notification Templates, including Media Releases - New Zealand Civil Defense and Emergency Management
- e. Tsunami Emergency Response SOPs
 - i. Roles and Responsibility Matrix
 - ii. Evacuation Checklist
 - iii. Emergency Response Matrix
 - iv. Tsunami Occurrence Checklist
 - v. Earthquake / Tsunami Information Checklist
 - vi. Tsunami Warning Checklist
 - vii. Timeline Template for Tsunami Emergency Response
- f. Local Planning Guidance on Tsunami Response - California Office of Emergency Services

8. Tsunami Emergency Response - Case Studies

- a. Hawaii, USA: State Civil Defense Distant and Local Tsunami Response
 - i. SOPs for Distant Generated Tsunami
 - ii. Distant-Generate Tsunami Response Checklist
 - iii. SOPs for Locally Generated Tsunami and Earthquake
 - iv. Locally Generated Tsunami Response Checklist
 - v. Urgent Local Tsunami Warning Emergency Broadcast Script
- b. Wakayama Prefecture, Japan: Local Government Tsunami Emergency Response Standard Operating Procedures
- c. Shizuoka Prefecture, Japan: Earthquake and Tsunami Disaster Prevention
 - i. Earthquake and Tsunami Preparedness

- d. Vertical Evacuation
 - i. Japan Guideline: Buildings Used for Tsunami Evacuation
 - ii. Volunteer Evacuation Building Agreement - Yaizu City, Shizuoka Prefecture
- e. Small Boat Safety
 - i. Japan Tsunami Response: Fishing Ports and Harbors
 - ii. Hawaii Boaters Manual: Tsunami guidance
 - iii. ITIC Tsunami Safety for Boaters
- f. Community Based Disaster Risk Management

9. Drills and Exercises

- a. Exercise Types
- b. Tabletop Exercise Development Steps
- c. Exercise Planning Templates – US Department of Homeland Security Exercise and Evaluation Program, 2006
- d. Tsunami Warning Communications Exercise: State of California Exercise Program, 28 March, 2007

10. Media Interactions

- a. Media Plan and Template
- b. Fact Sheets, Media Tips – Television, Radio, Print, FAQs
- c. News Releases, Advisories, Reports to the Media
Case Study: Japan and USA, 15 Nov 2006, Kurils
- d. Role of Media in Alert Dissemination
Case Study: Japan, NHK
Case Study: Hawaii, USA – Emergency Alert System

11. Miscellaneous

- a. Tsunami Awareness and Educational Materials DVD (ITIC) – separate packet
Contains DVD and hard copy summary. Hard copies of
Tsunami, The Great Waves (2008); Tsunami Glossary 2008; Tsunami Warning!;
Surviving Tsunamis: Lessons Learned from Chile, Hawaii, and Japan; Tsunami
Safety Flyers; PTWS and ITIC brochures; and other materials
- b. ITIC Tsunami Warning Decision Support Tools (earthquake and sea level
monitoring, alerts, travel time calculation, information databases / listserve
- c. Indonesia materials – list (electronic only)
- d. New Zealand materials – list (electronic only)
- e. USA materials – list (electronic only)