



INTERNATIONAL TSUNAMI INFORMATION CENTER (ITIC)

ITIC TRAINING PROGRAMME INTERNATIONAL (ITP-INTL) TSUNAMI EARLY WARNING AND MITIGATION SYSTEMS

12 -16 September 2011
Port Vila, Vanuatu

International Team:

UNESCO/IOC – NOAA ITIC: Dr. Laura Kong, Director

NOAA Pacific Tsunami Warning Center (PTWC): Dr. Stuart Weinstein, Deputy Director

NOAA International Extension and Public Alert Systems (IEPAS) / RANET programs, Kelly Sponberg

SPC / SOPAC: Noa Tokavou, Disaster Management Advisor, Community Risk Programme

UNESCO / IOC: Rajendra Prasad, Disaster Risk Reduction / Tsunami Warning Programme Officer

World Bank: Michael Bonte-Grapentin, Disaster Risk Reduction Specialist

AGENDA

Session	Start Time	End Time	Topic	Speaker
1			MONDAY, 12 SEPTEMBER: VANUATU TSUNAMI PLAN DEVELOPMENT	
			Meeting with NDMO, Met and Geology	
	8:30	10:00	Familiarisation with Tsunami EWS (receiving and dissemination)	SOPAC, IOC, World Bank, ITIC, PTWC
	10:00	10:30	COFFEE / TEA BREAK, Group Photo	
			Workshop with wider tsunami stakeholder group	
1.1	10:30	11:30	End-to-End Tsunami Warning and Emergency Response – Overview	Kong
1.2	11:30	12:00	End-to-end Tsunami Warning – Stakeholder Needs, Roles and Responsibilities, Standard Operating Procedures, and their linkages	Weinstein
	12:00	13:00	LUNCH	
1.3	13:00	16:00	Tsunami Plan Overview: Seek agreements on structure of the tsunami plan; Tabulate agency roles before during and after a tsunami event	Tokavou, Prasad, Bonte
2			TUESDAY, 13 SEPTEMBER: ITIC TSUNAMI TRAINING	
			Overview, Vanuatu Tsunami Warning and Emergency Response	
2.1	8:30	9:00	Training Overview	ITIC
2.2	9:00	10:00	Vanuatu Tsunami Early Warning System	Gibson, Todman
2.3	10:00	10:30	Case study: Tanna tsunami operation and response (25 Dec 2010)	Korisa
	10:30	11:00	COFFEE / TEA BREAK, Group Photo	

2.4	11:00	12:00	Case studies: Japan tsunami warning operation (March 11 2011); Port Vila Earthquake and Tsunami warning and response (August 21,2011) – Discussion	Gibson, Garaebiti
	12:00	13:00	LUNCH	
			PTWS, Hazard and Risk, Lessons Learned 2009-2011, TWC Operations	
2.5	13:00	13:30	International and National Tsunami Warning and Mitigation Systems – Requirements and Implementation Pacific Tsunami Warning and Mitigation System (PTWS) – organizations and operations	Kong
2.6	13:00	13:45	Global and Pacific Tsunami Hazard and Risk Assessment	Weinstein
2.7	13:45	15:00	Lessons Learned: South Pacific (29 Sep 2009), Chile (27 Feb 2010), Japan (11 March 2011)	Kong, Weinstein
	15:00	15:30	COFFEE / TEA BREAK	
	15:30	16:00	Lessons Learned: South Pacific (29 Sep 2009), Chile (27 Feb 2010), Japan (11 March 2011)	Kong, Weinstein
2.8	16:00	17:00	TWC Concept of Operation and Standard Operating Procedures (SOP) for Distant, Regional, and Local Tsunamis: Overview on Monitoring, Detection and Evaluation, Instrumentation and Methodologies (seismic, sea level, forecasts (travel time, wave height, etc), Data communications, Messages, Message Dissemination	Kong, Weinstein
3			WEDNESDAY, 14 SEPTEMBER: ITIC TSUNAMI TRAINING	
			Tsunami Warning Center (TWC) Operations	
3.1	8:30	9:30	PTWC SOPs – Event Operations, Flow Charts, Message Templates, Checklists, and Cheat Sheets for Distant and Local Tsunamis	Weinstein
3.2	9:30	10:45	TWC Event Operations – Limitations and Challenges: Real-Time Earthquake Source Characterization, e.g., differentiating between deep/shallow/teleseismic/local earthquakes, Magnitude, Depth, Slow Earthquakes, Doublets, Finite Fault Rupture	Weinstein
	10:45	11:15	COFFEE / TEA BREAK	
3.3	11:15	12:00	TWC Event Operations – Limitations and Challenges: Real-Time Tsunami Detection and Assessment for Tsunami Warning	Kong
	12:00	13:00	LUNCH	
			TWC Operations, Tsunami Warning Decision Support Tools	
3.4	13:00	13:30	Tsunami Warning Decision Support Tools – Sea level monitoring (Tide Tool, IOC Sea Level Monitoring web site) – demonstration	Kong, Weinstein
3.5	13:30	14:15	TWC Operations – Limitations and Challenges: Real-Time Tsunami Forecasting; PTWC SIFT and RIFT forecast models	Weinstein
3.6	14:15	14:45	TWC Operations: Guidance and Samples for Routine (non-crisis) operations, including procedures for operational readiness, data collection, and network maintenance	Weinstein
3.7	14:45	15:15	Tsunami Warning Decision Support Tools – TsuDig historical tsunami Database GIS tool – demonstration	Kong
	15:15	15:45	COFFEE / TEA BREAK	
			Public Information Flow, Tsunami Emergency Response (TER)	
3.8	15:45	16:15	Warning Dissemination and Public Alerts: Information Flow and the Role of Media: Japan JMA-NHK, Hawaii EAS examples and SOPs	Kong
3.9	16:15	17:00	Case Studies on experiences in developing and using SOPs - Japan, New Zealand, Indonesia; Developing TER Standard Operating Procedures (SOP): Guidance and Templates for Distant and Local Threats, Checklists, and examples of SOP best practices. General Roles and Responsibilities, Evacuation Checklists, Timeline of Processes and Actions	Kong

4			THURSDAY, 15 SEPTEMBER: ITIC TSUNAMI TRAINING	
			Evacuation, Mitigation, Communications	
4.1	8:30	9:15	Public Coastal Evacuations: Alerting and moving people, inundation maps, evacuation routes and signage, all-clear safe return	Kong
4.2	9:15	10:00	Building Tsunami Preparedness: US TsunamiReady, Drills and Exercises	Weinstein, Kong
4.3	10:00	10:45	Tsunami Mitigation - Hard Countermeasures: Designing buildings to withstand tsunami impact and flooding and earthquake shaking	Kong
	10:45	11:15	COFFEE / TEA BREAK	
4.4	11:15	12:30	Communication technologies for the transmission of tsunami warnings from national to local governments and communities – robustness, reliability, redundancy criteria for emergency communications. Existing alert methods, including WMO GTS, LRIT, EMWIN, RAPIDCast, broadcast media, Fax, internet/web/email, radio/HF, Mobile/Cell phones, SMS, social media, sirens	Sponberg (teleconference)
	12:30	13:30	LUNCH	
			Exercise Pacific Wave 2011 (PacWave11)	
4.5	13:30	14:00	Exercise Pacific Wave 2011 - overview	Kong
4.6	14:00	14:45	PTWC Experimental Products: Threat Levels and Criteria, Text and Graphical Products, Forecasts	Weinstein
4.7	14:45	15:15	PacWave11 Exercise Manual: Exercise Format, Conduct, Scenarios	Weinstein
	15:15	15:45	COFFEE / TEA BREAK	
4.8	15:45	16:15	How to Plan, Conduct, and Evaluate Tsunami Exercises guideline	Kong
4.9	16:15	16:45	PacWave11: Vanuatu exercise plan	Vanuatu
4.10	16:45	17:00	Training Closing	ITIC, PTWC
5			FRIDAY, 16 SEPTEMBER: VANUATU TSUNAMI PLAN DEVELOPMENT	
			Workshop with wider tsunami stakeholder group	
5.1	8:30	12:00	Charting the way forward on the Port Villa tsunami support	Bonte, Tokavou, Prasad
	12:00	13:00	LUNCH	
5.2	13:00	15:00	Finalise the draft Vanuatu tsunami plan and identification of key actions	Tokavou, Bonte, Prasad
	15:00	15:30	COFFEE / TEA BREAK	
5.3	15:30	16:00	Summary of days proceedings: Clear doubts on the way forward	Tokavou, Prasad, Bonte
5.4	16:00	16:15	Workshop Closing	ITIC, PTWC