



**INTERNATIONAL TSUNAMI INFORMATION CENTER (ITIC)  
ITIC TRAINING PROGRAMME HAWAII (ITP-HAWAII)  
TSUNAMI EARLY WARNING AND MITIGATION SYSTEMS**

**20 - 31 August 2012  
Honolulu, Hawaii USA**

**AGENDA**

Session	Start Time	End Time	Topic	Speaker
<b>1</b>			<b>MONDAY, 20 AUGUST, DAY 1: SESSION 1</b>	
			<b>Welcome and Programme Overview</b>	
1.1	9:00	9:30	Welcome and Introductions	NWS Pacific Region, ITIC
1.2	9:30	10:00	Programme Logistics: General, transportation, meals/refreshments, IT (computer, internet, printing), library, travel and other administrative items	Yanagi and ITIC
1.3	10:00	10:30	Course Overview, Manual, and Materials, including Awareness Materials	Kong, Arcos
	10:30	10:45	COFFEE / TEA BREAK, Group Photo - ITIC	
			<b>Country Presentations, Earthquake and Tsunami Science, Tsunami Hazard and Risk</b>	
1.4	10:45	12:15	Country Presentations (15-20 min each) - 4 countries	Participants
	12:15	13:30	LUNCH	
1.5	13:30	14:30	Earthquake and Tsunami Science - generation, propagation, impact	Fryer
1.6	14:30	15:15	Global and Pacific Tsunami Hazard	Butler
	15:15	15:30	COFFEE / TEA BREAK	
1.7	15:30	16:30	Tsunami Risk Assessment - Methods and Role of Tsunami Deposits	Arcos
<b>2</b>			<b>TUESDAY, 21 AUGUST, DAY 2: SESSION 2</b>	
			<b>IOC Tsunami Systems, End-to-End Tsunami Warning, Tsunami Modelling, and Inundation, Country Presentations</b>	
2.1	9:00	9:15	Announcements	Kong
2.2	9:15	10:30	Tsunami Risk Assessment: Modeling and Mapping of Tsunami Inundation	Cheung
	10:30	10:45	COFFEE / TEA BREAK	
2.3	10:45	11:30	International and National Tsunami Warning and Mitigation Systems - Requirements and Implementation Pacific Tsunami Warning and Mitigation System (PTWS) - organizations and operations	Kong
2.4	11:30	12:00	End-to-end Tsunami Warning – Stakeholder and their needs, Roles and Responsibilities, Standard Operating Procedures, and their linkages	Yanagi
2.5	12:00	12:30	Hawaii example: Hawaii Tsunami Warning and Mitigation System	Yanagi
	12:30	13:30	LUNCH	
2.6	13:30	14:45	Country Presentations (15-20 min each) - 3 countries	Participants
			<b>Tsunami Warning Decision Support Tools, Lessons Learned</b>	

2.7	14:45	15:30	Tsunami Warning Decision Support Tools – Overview: Message Alerts, Real-Time Earthquake Display (CISN); Sea level monitoring (Tide Tool, IOC Sea Level Monitoring web site); Tsunami Databases (WDC/NGDC web tools, TsuDig), Tsunami Travel Time (TTT) calculation - demonstration and/or installation: Message Alerts, Real-Time Earthquake Display (CISN) - demonstration and installation	Kong
	15:30	15:45	COFFEE / TEA BREAK	
2.8	15:45	16:30	Lessons Learned from Past Tsunamis - Tsunami Warning	Kong and McCreery
3			<b>WEDNESDAY, 22 AUGUST, DAY 3: SESSION 3</b>	
			<b>Lessons Learned, TWC and PTWC SOPs</b>	
3.1	9:00	9:45	Lessons Learned from Past Tsunamis - Tsunami Warning	Weinstein
3.2	9:45	10:30	PTWC Concept of Operation and Standard Operating Procedures (SOP) for Distant, Regional, and Local Tsunamis: Monitoring, Detection and Evaluation, Instrumentation and Methodologies (seismic, sea level, forecasts (travel time, wave height, etc), Data communications, Messages and Message Dissemination	Weinstein
	10:30	10:45	COFFEE / TEA BREAK	
3.3	10:45	11:30	TWC SOPs and Checklists: Templates and examples of SOP best practices. Homework - Review & improve country TWC SOP / Checklists (especially for local/regional threat) for input to Aug 29-30 exercise	Kong
3.4	11:30	12:15	New PTWC Products: Why, What (criteria, types), When, How, including forecast products	McCreery and Kong
	12:15	13:00	Drive to Ewa Beach	
	13:00	14:15	LUNCH - Prince Golf Course, Ewa Beach	
			<b>PACIFIC TSUNAMI WARNING CENTER (PTWC), EWA BEACH, OAHU</b>	
			<b>Pacific Tsunami Warning Center - Operations</b>	
			Group Photo - PTWC	
3.5	14:15	16:45	Visit Pacific Tsunami Warning Center and HON Seismic station, topics covered: 1. Seismic Monitoring (source location and magnitude estimation, W-phase) 2. Sea level Monitoring (Coastal and DART stations), Monitoring, (Tide Tool), Wave forecasting (SIFT) 3. New PTWC Graphical Products (RIFT)	Weinstein and PTWC Staff
	16:45	17:45	Return to hotel	
4			<b>THURSDAY, 23 AUGUST, DAY 4: SESSION 4</b>	
			<b>PTWC New Products, Country Presentations, Communication technologies</b>	
4.1	9:00	9:45	New PTWC Products: Forecasts, TWC understanding and interpretation	McCreery
4.2	9:45	10:30	New PTWC Products: Implementation, Rollout, Training, and PacWave13	McCreery and Kong
	10:30	10:45	COFFEE / TEA BREAK	
4.3	10:45	11:45	Country Presentations (15-20 min each) - 3 countries	Participants
	11:45	13:00	LUNCH (TWTools installation as needed)	Kong
4.4	13:00	14:30	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 / HF, Mobile/Cell phones, SMS, Internet, Social Media, etc	Young and Sponberg
			<b>Emergency Operations Center Response to Tsunami Products</b>	
	14:30	15:00	Drive to Hawaii State Civil Defense (SCD) Emergency Operations Center	
4.5	15:00	16:30	Hawaii State Emergency Agency Responses to PTWC Tsunami Products	Hawaii SCD Staff
	16:30	16:45	Return to hotel	
5			<b>FRIDAY, 24 AUGUST, DAY 5: SESSION 5</b>	
			<b>Tsunami Emergency Response (TER)</b>	
5.1	9:00	9:45	Tsunami Emergency Response, including Stakeholder Coordination and Roles of Agencies – Overview	Arcos
5.2	9:45	10:30	Lessons Learned from Recent Tsunamis - Emergency Response, Samoa Tsunami	Yanagi

	10:30	10:45	COFFEE / TEA BREAK	
5.3	10:30	11:15	New PTWC Products: TER understanding and interpretation	Yanagi
5.4	11:15	12:00	Conducting public coastal evacuations - "Downstream" Communications Process	Arcos
	12:00	13:15	LUNCH (TWTools installation as needed)	Kong and Fukuji
			<b>Tsunami Emergency Response (TER), Exercises, Media</b>	
5.5	13:15	14:00	TER SOPs and Checklists: Templates and examples of SOP best practices. Homework - Review & improve country TER SOP / Checklists (especially for local/regional threat) for input to Aug 29-30 exercise	Yanagi
5.6	14:00	14:45	How to Plan, Conduct, and Evaluate Tsunami Exercise guideline, Homework - Read Guideline in preparation for Aug 29-30 Exercise	Yanagi
	14:45	15:00	COFFEE / TEA BREAK	
5.7	15:00	15:30	Warning Dissemination and Public Alerts: Information Flow and Role of Media	Kong and Yanagi
5.8	15:30	16:30	Information Flow SOPs: Templates and examples of SOP best practices Homework - Review & improve country Info Flow/Media SOP / Checklists (especially for local/regional threat) for input to Aug 29-30 exercise	Yanagi and Kong
			<b>SATURDAY-SUNDAY, 25-26 AUGUST - FREE DAYS</b>	
6			<b>MONDAY, 27 AUGUST, DAY 6: SESSION 6</b>	
			<b>HOTEL Pickup at 7:45</b>	
			<b>Hilo, Hawaii (Big Island)</b>	
	8:45	9:55	Arrive Honolulu Airport and check-in; boarding 9:30am	
	9:55	10:45	Hawaiian Air (HA) Flight #, Honolulu - Hilo	
	10:45	11:15	Pick up rental van; Transit to Pacific Tsunami Museum	
			<b>Pacific Tsunami Museum, Hawaii County Civil Defense</b>	
6.1	11:15	12:45	Pacific Tsunami Museum	Saiki, Curtis
	12:45	14:00	LUNCH	
6.2	14:00	16:30	County of Hawaii: Tsunami Emergency Responses to PTWC Tsunami Messages	Fuata, Curtis
	16:30		Check-in hotel, Hilo, Hawaii	
	19:00		Dinner	
7			<b>TUESDAY, 28 AUGUST, DAY 7: SESSION 7</b>	
			<b>CHECK-OUT AND MEET IN NANILOA HOTEL LOBBY at 8:00 am</b>	
			<b>Hilo, Hawaii (Big Island)</b>	
			<b>USGS Hawaiian Volcano Observatory, Tsunami Memorials</b>	
	8:00	9:00	Tsunami memorials. Drive to USGS HVO / Hawaiian Volcanoes National Park	Yanagi
7.1	9:00	11:30	US Geological Survey Hawaiian Volcano Observatory: Seismic and Volcano monitoring of Kilauea Volcano; Seismic Vault visit; Jaggar Museum	Okubo
7.2	11:30	14:15	LUNCH, Kilauea Military Camp. Visit Steam Vents / Hawaiian Volcano National Park Visitor Center	Yanagi
			<b>Depart for Honolulu, Hawaii (Oahu)</b>	
	14:15	15:15	Drive to Hilo Airport, boarding 16:00	
	17:00	17:50	Hawaiian Air Flight # 263, Hilo - Honolulu	
	19:00		Check-in hotel	
8			<b>WEDNESDAY, 29 AUGUST, DAY 8: SESSION 8</b>	
			<b>Tsunami Education, Awareness, Mitigation, and Preparedness</b>	
8.1	9:00	9:45	Tsunami Education and Awareness - International Perspectives	Arcos
8.2	9:45	10:30	Tsunami Mitigation - Hard & Soft Countermeasures Public Policy	Yanagi
	10:30	10:45	COFFEE / TEA BREAK	
8.3	10:45	12:00	Designing buildings for tsunami loading - FEMA P646, ASCE 7 and International Building Code updates	Robertson
8.4	12:00	12:30	Tourism sector and TsunamiReady Program	Arcos

	12:30	13:45	LUNCH (TWTools installation as needed)	Kong and Fukuji
			<b>ITP-Hawaii 2012 Tsunami Exercise - Preparation</b>	
8.5	13:45	14:15	Tsunami Exercise - Overview and Format	Kong
8.6	14:15	14:45	Tsunami Exercise - Preparation - SOPs, Checklists, Templates, etc	Yanagi
	14:45	15:00	COFFEE / TEA BREAK	
8.7	15:00	16:30	Tsunami Exercise - Preparation Homework - Finish SOPs, checklists, message templates to be used in Exercise	Country Teams
9			<b>THURSDAY, 30 AUGUST DAY 9: SESSION 9</b>	
			<b>ITP-Hawaii 2012 Tsunami Exercise - Preparation</b>	
9.1	9:00	9:45	Topic to be determined	ITIC
9.2	9:45	10:45	Country Teams share Exercise SOPs	Country Teams
	10:45	11:00	COFFEE / TEA BREAK	
9.3	11:00	11:15	Tsunami Exercise - Preparation and Setup	Yanagi, Kong
	11:15	12:30	LUNCH	
			<b>ITP-Hawaii 2012 Tsunami Exercise</b>	
9.4	12:30	14:45	Conduct Tsunami Exercise	Country Teams, Exercise Controller, ITIC, PTWC
	14:45	15:00	COFFEE / TEA BREAK	
9.5	15:00	16:30	Post-Exercise Evaluation - Hotwash preparation Homework - finalize Post-Exercise Evaluation report	Country Teams
10			<b>FRIDAY, 31 AUGUST DAY 10: SESSION 10</b>	
			<b>ITP-Hawaii 2012 Tsunami Exercise - Evaluation</b>	
10.1	9:00	10:30	Post-Exercise Evaluation	Yanagi, Country Teams, ITIC, PTWC
	10:30	10:45	COFFEE / TEA BREAK	
10.2	10:45	11:30	Post-Exercise Evaluation (continued)	Yanagi, Country Teams, ITIC, PTWC
10.3	11:30	12:15	ITP-Hawaii 2012 Logistics wrap-up; Travel Vouchers, Course Materials	Yanagi, Arcos
	12:15	13:30	LUNCH	
			<b>Summary and Closing</b>	
10.4	13:30	15:00	Summary Discussion (Way Forward, Next Steps, Gaps, Needs)	All
	15:00	15:15	COFFEE / TEA BREAK	
10.5	15:15	16:00	Presentation of Certificates and Closing	ITIC, PTWC, NWS
			<b>Friday - Saturday, 31 AUGUST - 1 SEPTEMBER</b>	
			<b>Hotel Checkout - Depart for home country</b>	