



United Nations  
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Cultural Organization



Intergovernmental  
Oceanographic  
Commission



National Oceanic  
and Atmospheric  
Administration



International  
Tsunami Information  
Center



Pacific  
Community  
Communauté  
du Pacifique



## UNESCO – IOC / NOAA INTERNATIONAL TSUNAMI INFORMATION CENTER (ITIC) ITIC TRAINING PROGRAMME INTERNATIONAL (ITP-INTL)

### ITP-Kiribati: Tsunami Warning and Emergency Response Using the PTWC Enhanced Products for National Tsunami Threat Decision-Making Tarawa, Kiribati, 16-17 April 2018

#### TRAINERS

Dr. Laura Kong, Director, ITIC, Hawaii, USA

Rajendra Prasad, Programme Officer, IOC Tsunami Unit, Fiji

Noa Tokavou, BSRP Project Officer, SPC

#### TRAINING OVERVIEW

The training workshop will cover tsunami warning operations and the use of the PTWC Enhanced Products for tsunami threat decision-making, with specific attention on the warning and emergency response plan and standard operating procedures (SOPs) of Kiribati. Topics will include warning and response, decision support tools, warning messages and alerting, evacuation concepts and planning, and awareness strategies. The goal of this training is to increase the capacity of first responder operational staff to efficiently and effectively respond to tsunamis.

#### PROVISIONAL AGENDA

Ses sion	Start Time	End Time	Topic	Speaker
1-3			<b>MONDAY, 16 APRIL 2018</b>	
			<b>MORNING</b>	
			<b>End-to-end Tsunami Warning, Earthquake and Tsunami Science, Hazard, PTWC products</b>	
	8:30	9:00	Registration	Kiribati Meteorological Service (KMS)
	9:00	9:15	Welcome, Introductory Remarks, Purpose of Training	KMS, IOC, SPC
1.1	9:15	9:30	End-to-end Tsunami Warning - Overview	Laura Kong, ITIC
1.2	9:30	10:00	Earthquake Seismology, Historical Seismic Hazard	Laura Kong, ITIC
1.3	10:00	10:45	Tsunami Science, Historical Hazard and Potential Threats to Kiribati	Kong
	10:45	11:00	COFFEE / TEA BREAK - Group Photo	
1.4	11:00	11:30	Kiribati Tsunami Warning and Emergency Response – current products and procedures	KMS, NDMO
2.1	11:30	12:30	PTWC Enhanced Products and Procedures: PTWC Enhanced Products User's Guide: Overview, Staging of Products, Types of Products - Public Text, Graphical and Statistical Products, Limitations and Challenges	Kong
	12:30	13:30	LUNCH	

			<b>AFTERNOON</b>	
			<b>Strengthening of Kiribati Warning Procedures - Enhanced Products Guidance, Alert Criteria, Communications Flow Chart</b>	
<b>2.2</b>	13:30	14:00	What is a dangerous tsunami? Examples of waves and their impact	Kong
<b>2.3</b>	14:00	15:00	PTWC Enhanced Products Guidance - National Threat Assessment, Warning, and Response: Flow Charts, Criteria Table, Message Templates Timeline-driven SOPs – Who does What, When, To Whom, How. Guidance on use for National Warnings and Evacuation – Land and Marine Threats and Public Safety	Kong
	15:00	15:15	COFFEE / TEA BREAK	
<b>3.1</b>	15:15	16:00	Kiribati Warning Procedures – Alert Criteria Table – Link Threat to Alert Level and Action: Decision Process for Warning / Watch / Information using: 1.PTWC initial message (no quantitative forecast, 10 min after earthquake), 2. PTWC quantitative forecast (30+ min after earthquake)	Kong, Prasad
<b>3.2</b>	16:00	16:30	Kiribati Warning Procedures – Roles and Responsibilities: Communications Flow Chart	Tokavou, Prasad
<b>3-5</b>			<b>TUESDAY, 17 APRIL 2018</b>	
			<b>MORNING</b>	
			<b>Strengthening of Kiribati Warning Procedures - Messages, Decision Support Tools, Timeline-driven SOPs</b>	
	9:00	9:15	Review of Previous Day	Prasad
<b>3.3</b>	9:15	10:00	Kiribati Warning Procedures – Message Products for Alert Levels: Threat: Warning, Advisory Potential Threat: Watch No Threat: Information Statement, Felt Earthquake (rare)	Kong, Prasad
<b>3.4</b>	10:00	10:45	Earthquake and tsunami detection and analysis. Decision Support Tools for Operational Monitoring, Detection, Assessment, Warning, Cancellation: CISN, Tide Tool with Tsunami Travel Times, IOC SL Monitoring web site, URLs	Kong
	10:45	11:00	COFFEE / TEA BREAK - Group Photo	
<b>3.5</b>	11:00	11:30	Decision Support Tools for Hazard Assessment and Response Planning: Tsunami Coastal Assessment Tool (TsuCAT)	Kong
<b>3.6</b>	11:30	12:30	Developing Event Timeline-driven SOPs – PTWC, Kiribati NTWC, Kiribati NDMO actions: Regional Tsunami case. Who does What, When, To Whom, How Communication Flow, Consultation, Decision-making, Public Safety	Kong, Prasad, Tokavou
	12:30	13:30	LUNCH	
			<b>AFTERNOON</b>	
			<b>Strengthening of Kiribati Warning Procedures - Timeline-driven SOPs, Exercises, Tsunami Ready International</b>	
	13:30	14:00	Developing Timeline-driven SOPs: Regional Tsunami case (cont'd)	
<b>3.7</b>	14:00	15:00	Developing Timeline-driven SOPs: Distant Tsunami case	Kong, Prasad, Tokavou
<b>3.8</b>	15:00	15:45	Developing SOPs: Evacuation Plans and Safe Assembly Areas, Decision Process for Canceling Advisory and/or Warnings, Decision Process for issuing the “All Clear”	Kong, Tokavou
	15:45	16:00	COFFEE / TEA BREAK - Group Photo	
<b>4.1</b>	15:45	16:00	Validating and Testing SOPs: Exercise Pacific Wave 2018 (PacWave18) – what, when, scenarios	Prasad
<b>4.2</b>	16:00	16:15	Building Tsunami Resilient Communities: International Tsunami Ready pilot programme for the Pacific	Prasad
<b>5</b>	16:15	16:45	Presentation of Certificates and Closing	IOC, ITIC, SPC, Kiribati