

**UNESCO INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
INTERGOVERNMENTAL COORDINATION GROUP FOR THE PACIFIC TSUNAMI  
WARNING AND MITIGATION SYSTEM  
INTERNATIONAL TSUNAMI INFORMATION CENTRE**

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**SEMINAR ON TSUNAMI WARNING OPERATIONS UNDER THE PACIFIC TSUNAMI  
WARNING AND MITIGATION SYSTEM (PTWS): PROTOCOLS, PROCEDURES AND  
BEST PRACTICES FOR MONITORING, EVALUATION AND ALERTING THE PUBLIC**

**Theme**

“Building Capacities of National Meteorological Services and  
National Disaster Management Offices as Principal Stakeholders  
for the Timely Issuance of Tsunami Warnings to Prepared Communities”

*(Kuala Lumpur, Malaysia, 2 to 3 April 2007)*

*(Co-sponsored by IOC PTWS, WMO RAV, SOPAC, SPREP)*

*(Funding support from WMO, USA, SOPAC, IOC)*

*(Hosted by Malaysia Meteorological Department)*

**Provisional Detailed Agenda, 28 March 2007**

**Day 1: MONDAY, 2 APRIL 2007**

<b>TIME</b>	<b>TOPIC</b>	<b>SPEAKER</b>
08:00 - 09:00	<b>Registration</b>	
09:00 - 09:15	1. Provisional Agenda and Goals of Seminar	ITIC, Laura Kong
09:15 - 10:00	1. The Pacific Tsunami Warning and Mitigation System (PTWS) - Overview, Requirements, and Implementations	ITIC, PTWS Secretariat, Laura Kong
10:00 - 11:30	<b>Opening ceremony</b>	Malaysia, IOC, WMO, SOPAC, SPREP
11:30 - 11:45	<b>Coffee Break</b>	
11:45 - 12:15	2. Science of earthquakes and tsunamis (20 min + discussion)	PTWC, Charles McCreery
12:15 - 12:45	3. Tsunami Hazard Risk Assessment (20 min + discussion)	PTWC, Charles McCreery
12:45 - 14:00	<b>Lunch</b>	
14:00 - 15:00	4. Tsunami Warning Centres (TWC)	
	4.1 Objectives, Concepts of operation, Standard operating procedures (15 min)	IOC, Masahiro Yamamoto
	4.1 Seismic and Sea Level Monitoring, Detection and Evaluation Instrumentation and Methodologies (15 min)	PTWC, Charles McCreery
	4.1 25 March 2007 Japan Earthquake and Tsunami (15 min)	JMA, Yosuke Igarashi
	4.1 Seismic, Sea level and Alerts - Available Tools (15 min)	ITIC, Laura Kong
15:00 - 16:00	4.2 Tsunami Hazards and Warning Timeline Scenarios for the Pacific	

	4.2 Southwest Pacific (20 min)	PTWC, Charles McCreery
	Discussion (10 min)	PTWC, JMA, Member States
	4.2 South China Sea and Northwest Pacific - Northwest Pacific Tsunami Advisory Center (20 min)	JMA, Yosuke Igarashi
	Discussion (10 min)	PTWC, JMA, Member States
16:00 - 16:15	<b>Coffee Break</b>	
16:15 - 17:15	5. Tsunami Emergency Response (TER) after warning issuance	
	5.1 Concept of Operations and standard operating procedures for "End to End" Response Process; Conducting public coastal evacuations; Stakeholder coordination and communication, roles, jurisdictions for government, non-government, and private sector (15 min)	ITIC Laura Kong
	5.2 Communication technologies for warning dissemination and public alerts - Satellites (EMWIN/RANET), Radios/Sirens, Cell phones, Communications to Last Kilometer (RANET) (15 min)	USA NWS, Ed Young
	5.3 Drills and exercises: Types, Planning, Conduct; International (Exercise Pacific Wave), National, Local (15 min)	NZ CDEM David Coetzee
	Discussion (15 min)	
17:15 - 17:45	5.4 TWC, TER, and Media (15 min + video)	IOC, Laura Kong, Masahiro Yamamoto
17:45 - 18:15	6. Tsunami Mitigation – Education, Outreach, Mitigation Countermeasures	ITIC, Laura Kong
18:15 - 18:30	<b>Discussions</b>	All
<b>Day 2: TUESDAY, 3 APRIL 2007</b>		
<b>TIME</b>	<b>TOPIC</b>	<b>SPEAKER</b>
08:30 - 08:45	<b>Agenda and Goals for Day 2: Improving the PTWS and National Systems</b>	ITIC
08:45 - 10:00	<b>7. PTWS Task Team on Messages</b> – Discussion and Customer input: Improving the content, clarity, understanding, and timely dissemination of Message Products issued by warning centres	
08:45 - 09:15	Overview and TORs of breakout groups	PTWC
09:15 - 10:00	Breakout Groups: Products, Content, Timeliness and Method of Delivery: What are the Problems? What are the causes? What are solutions? Consider implementation costs, national commitments.	Breakout Groups by Topics to discuss, identify, prioritize for action
10:00 - 10:15	<b>Coffee Break</b>	
10:15 - 11:30	PTWS Task Team on Message Content (continued)	
10:15 - 10:45	Report Back	Group Leaders
10:45 - 11:30	Group Discussion	PTWC, ITIC

11:30 - 12:15	<p><b>8. Needs for the Future</b> – Where do we want to go? Moving forward from previous workshops for Pacific Island and South China Sea countries</p> <p>Introduction and TORs of breakout groups - review of previous efforts, current status, assessments (prior and future), suggestions / topics for consideration by sub-regional breakout groups; End-to-end Tsunami warning (monitoring, detection, evaluation, alert dissemination, evacuation, all-clear) implementation, and preparedness required for achieving success. PTWS Medium Term Strategy and Implementation Plan (15 min)</p> <p>8.2 South China Sea Region Overview - International Roundtable, ASEAN SCMG (10 min each)</p> <p>8.3 North, South, and West Pacific Overview - Regional Strategy, SPTAW, NPTAC, PTWS SWPTWG (10 min each)</p>	<p>ITIC</p> <p>Malaysia, ASEAN</p> <p>SOPAC, ITIC/Samoa</p>
12:15 - 13:30	<b>Lunch</b>	
13:30 - 15:15	<p>How do we get there? Actions and Recommendations</p> <p>Sub-regional working groups, plenary reporting, and discussion</p> <p>8.2 South China Sea Region</p> <p>8.3 Pacific Island Countries – North, South, West</p>	<p>Leads: Malaysia, JMA/PTWC, ITIC</p> <p>Leads: Samoa (PTWS SWPTWG Vice-Chair), PTWC/JMA, ITIC, SOPAC</p>
13:30 - 14:45	Breakout Groups: Review, Modify as needed, and Endorse Regional Strategy; Review prior mtg Actions, report if complete or progress made, identify new esp concerning End-to-End TW and preparedness, prioritize by sub-region, and Endorse. Identify practical TWC and NDMO tools Member States should have. Consider implementation costs, national/regional commitments.	
14:45 - 15:15	Report Back	Group Leaders
15:15 - 15:30	<b>Coffee break</b>	
15:30 - 16:30	How do we get there? Actions and Recommendations (continued)	
15:30 - 16:15	Discussion, prioritization, and commitment to action	All
16:15 - 16:30	8.4 Summary and Next Steps: Reporting, Development of Proposals, Next meetings	ITIC
16:30 - 17:00	<b>Closing ceremony</b>	