



**Asia-Pacific  
Economic Cooperation**

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**2018/SOM1/EPWG/004**

Agenda Item: 9.3

**EPWG 01 2017 A – Workshop on Tsunami Threat  
Assessment for Tsunami Warning Centers of APEC  
Economies**

Purpose: Information

Submitted by: Chile



**13<sup>th</sup> Emergency Preparedness Working  
Group Meeting  
Port Moresby, Papua New Guinea  
24-25 February 2018**

**EPWG 01 2017 A – Workshop on *Tsunami Threat Assessment for Tsunami Warning Centers of APEC Economies***



Santiago, Chile, 5-7 December 2017



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# *Workshop Tsunami Threat Assessment for Tsunami Warning Centers of APEC Economies*

## **INTRODUCTION**

The workshop aimed to be a space where the experts could share and discuss the most advanced and cutting-edge tools used in assessment of tsunami threats by the principal Tsunami Warning Centers (TWC)

With the participation of experts from Australia, Chile, Italy, Japan, New Zealand, Spain and United States of America, the presentations focused on the strengths and weaknesses of each system, based on the varied Tsunami risks. They also highlighted the role of the NGO's in reducing the loss of life and the damages in critical infrastructure associated to tsunamis.



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## **WORKSHOP AGENDA**

### **Day 1 • December, 5th**

National instruments for Disasters Risk Management.	Andrés IBACETA, ONEMI
The Chilean National Tsunami Warning Center SOPs.	Carlos ZÚÑIGA, SHOA
The Establishment and Evolution of Tsunami Service Providers supporting National Tsunami Warning Centres - An Indian Ocean Perspective.	Rick BAILEY, former Head of the Australian Tsunami Warning & Ocean Services.
Improvement of JMA Tsunami Warning Services after 2011 event.	Satoshi HARADA, JMA.

### **Day 2 • December, 6th**

Tsunami Coastal Hazard Assessment Tool (TsuCAT).	Laura KONG , ITIC NOAA.
Tsunami-HySEA model.	Jorge MACIAS, University of Málaga.
Tsunami modelling contributions by the Seismic Risk Program of the Geophysical Department.	Mauricio FUENTES, University of Chile.
Earthquake and Tsunami Services by JMA.	Satoshi HARADA, JMA.
NOAA tools for tsunami assessment: SIFT, Tweb and ComMIT	Diego ARCAS, NOAA PMEL.
Visit to the Chilean National Tsunami Warning System Operational Room.	



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## **WORKSHOP AGENDA**

### **Day 3 • December, 7th**

DART Systems.	Diego ARCAS, NOAA PMEL.
JRC efforts in the development of the Tsunami Warning System in Mediterranean Sea and North Atlantic Ocean.	Alessandro ANNUNZIATO, JRC EU.
Building Community Resiliency: Tsunami Ready and Maritime Preparedness.	Laura KONG , ITIC NOAA.
The Integrated System for Tsunami Prediction and Warning (SIPAT).	Patricio CATALÁN, Federico Santa María University.
The Kaikoura earthquake and tsunami one year on – lessons and actions.	Ken GLEDHILL, GeoNet and Sarah-Jayne McCurrach MCDEM.
Improvements in the National Seismological Network.	Sergio BARRIENTOS, National Seismological Center (CSN).
PTWC's Enhanced products.	Charles MC CREERY, PTWC.
Results and perspectives in relation to advancing towards the tsunami hazard maps estimation in near real time.	Rodrigo CIENFUEGOS, CIGIDEN.



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## **MAIN ISSUES ADDRESSED**

- The strategy of Disaster Risk Reduction (DRR) for each APEC Economy, should be tailored to their particular Hazards, Vulnerability and Capacities.
- For economies like Chile and Japan, where Tsunami Hazards are higher, experience has shown that vulnerability can only be reduce to a certain extent, and the only effective strategy to address risk is to focus on capacity building.
- National Emergency Management Office (ONEMI) works on increasing tsunami awareness by conducting several evacuation drills along coastal cities in Chile.



President Of Chile, Ms. Michelle Bachelet



# Workshop Tsunami Threat Assessment for Tsunami Warning Centers of APEC Economies

## MAIN ISSUES ADDRESSED

- Thanks to the recent advances on information technology, the tsunami threat predicting tools are becoming more easy to use, accessible and accurate.
- Focused on increasing cooperation among the agencies involved during emergencies and optimizing the decision-making process within the Sendai Framework.
- Cooperation among Tsunami Warning Centers and sharing experiences can increase the speed of Capacity Building.



Dra. Laura Kong, Director ITIC NOAA



Rear Admiral, Patricio Carrasco Director SHOA



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### **CONCLUSIONS**

1. Timely and accurate Tsunami threat assessment has been successful in the Chilean case to deal with the Tsunamis triggered by earthquakes in March 11<sup>th</sup> 2011, April 1<sup>st</sup> 2014, September 16<sup>th</sup> 2015 and December 25<sup>th</sup> 2016. The use of pre-modelled Tsunami scenarios Database and real time sea level monitoring are the main strengths of this system.
2. Reinforce Education of the community is of outmost importance to reduce the loss of human lives, while damage to critical infrastructure can only be achieved thru a proper land use policy and long term urban management.
3. All experts and participants agreed that this project should have a follow up event in 2019, destined to assess the advances made in each APEC Economy after this workshop.



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