

“Sustainable Weather, Climate, Oceans and Water Services for a Resilient Pacific”

Fifth Meeting of the Pacific Meteorological Council (PMC-5) Working Papers

7-9 August 2019
Apia
Samoa

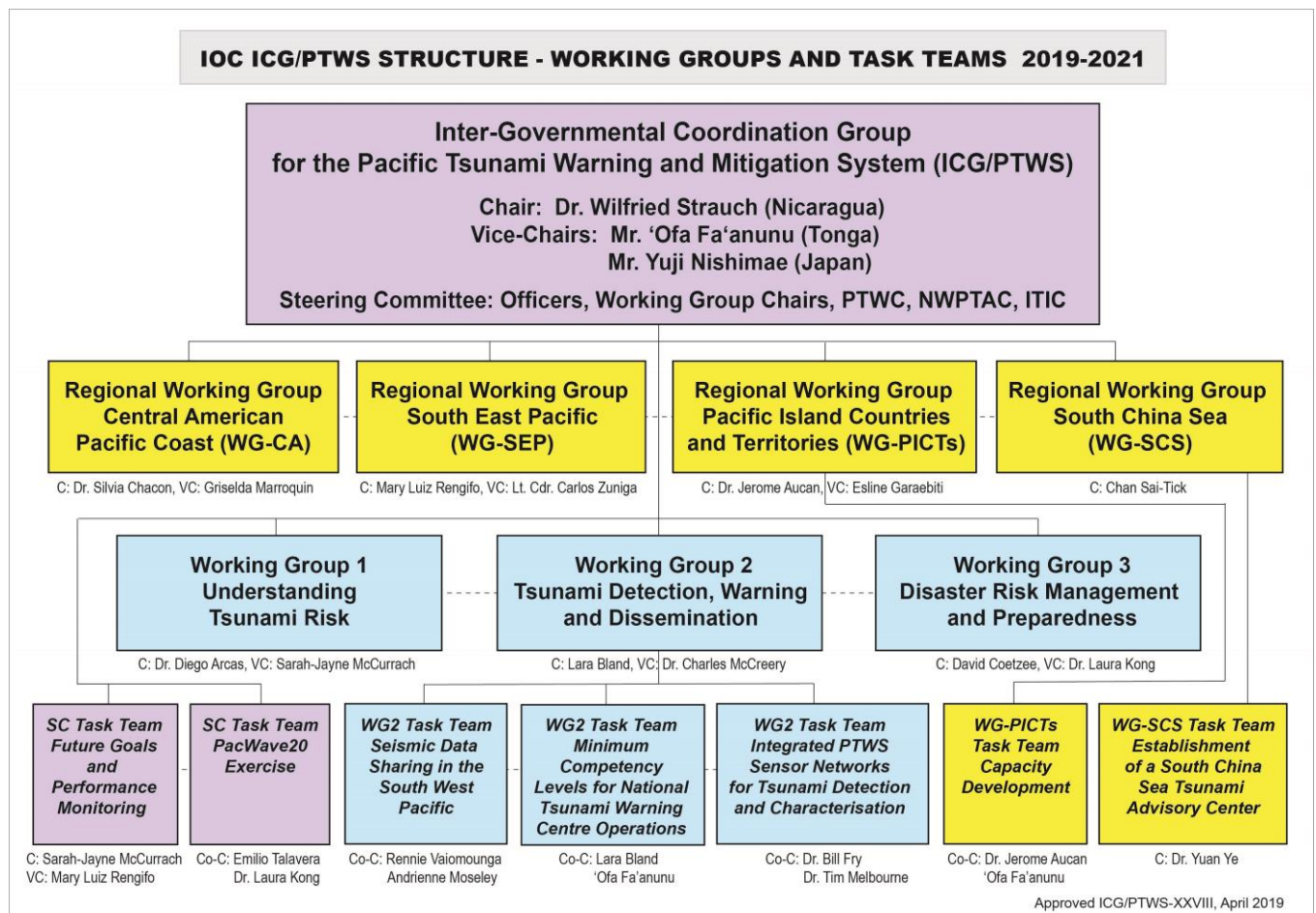
Agenda Item 13.1 Progress on the Work of the Inter-governmental Coordination Group for the Pacific Tsunami Warning System (PTWS)

Purpose:

1. To **provide and update** on the progress of the Pacific Tsunami Warning System Intergovernmental Working Group (ICG) and the work of the Pacific Island States and Territories (PICTs) Regional Tsunami Warning and Mitigation Working Group.
2. To **seek PMC’s endorsement** of coordination of PMC and the ICG/PTWS on tsunami warning and mitigation activities relevant to PMC Members.
3. To inform PMC about upcoming trainings and opportunities.

Background:

1. Working structure of the ICG/PTWS as of July 2019 is as follows:



1. The PICT Regional Tsunami Warning and Mitigation Group is a Working Group of the ICG/PTWS as was Chaired by Tonga (Ofa Faanunu) from 2015-2019. Despite the ongoing challenges in funding the work of the PICT Regional Working Group and its TT on Capacity Development the WG was able to meet 3 times during the Inter-sessional period
 - (1) Back to Back with the ORSNET Meeting in Honiara, Solomon Islands on 9 August 2017
 - (2) During the PTWS Steering Committee Meeting in Honolulu, Hawaii on 6 June 2018
 - (3) Back to Back with the ORSNET Meeting in Noumea, New Caledonia on 8 March 2019
 The work of the Working Group and the TT on Capacity Development was guided by its TOR and the Decisions of the 27th ICG/PTWS held in Tahiti from 28 – 31 March 2017. The TOR of the PICT Working Group and its TT on Capacity Development are included in the report of the PICT Regional Tsunami Warning and Mitigation Group is attached as Annex 3.
2. The 28th Session of the Intergovernmental Oceanographic Commission (IOC) Intergovernmental Coordination Group (ICG) for the Pacific Tsunami Warning System (PTWS) met in Nicaragua April 2-5, 2019. The meeting was attended by 63 participants from 21 countries, and 4 Observer organizations. The report of the 28th Session of the Intergovernmental Oceanographic Commission (IOC) Intergovernmental Coordination Group (ICG) for the Pacific Tsunami Warning System (PTWS) is attached as Annex 2 to this report.

Updates

ICG/PTWC

3. Based upon the requests and recommendations of the the Pacific Island States and Territories (PICTs) Regional Tsunami Warning and Mitigation Working Group. chaired by Ofa Fa'anunu (Tonga), the ICG established a Working Group 2 Task Team to develop minimum competency standards necessary for National Tsunami Warning Centre (NTWC) operations staff who are standing watch and producing national warnings.
4. The ICG decided the acceptance of the document *Local-Source Tsunami Response Best Practice* contained in Annex 1 as a first version for the guidance of Member States in producing their local tsunami warnings and response strategies.
5. Japan announced that its North Western Pacific Tsunami Advisory Center (NWPTAC), one of the two Tsunami Service Providers in the region, will begin providing expanded regionalized enhanced products starting in February 2020. It will also host the next ICG in 2021.
6. The ICG recommended Member States with GNSS data to investigate the means of sharing this data in real time. In exchange for sharing data and/or analyzed results, Member States will receive the benefit of improved tsunami impact forecasts for their vulnerable coastlines, with better potential for saving lives, particularly in the near-field.
7. The ICG decided to hold an Exercise Pacific Wave 2020 (PacWave20) which will take place in the months of September through to November 2020 to support International Disaster Risk Reduction Day (13 October) and World Tsunami Awareness Day (5 November). ITIC's new TsuCAT tool to support hazard assessment, exercise planning, and decision-making, v4 is current, includes generation of PTWC enhanced products (text and graphical).
8. NOAA's International Tsunami Information Center (ITIC) has support to conduct some trainings for PICTs. Upcoming trainings: 1) on SOPs and PTWC/JMA Enhanced Products in PNG, 5-9 Aug, ITIC/PTWC), 2) NTWC Competencies (Tonga, Samoa invited, 14-25 Oct, ITIC/PTWC/Yamamoto (retired JMA/IOC, now JICA Vanuatu Senior Advisor for TWC), 3)

TEMPP 1/2 (Inundation mapping regional training, SPC sponsored, for Tonga, Samoa, Fiji, Tuvalu, Vanuatu, Solomon Islands, PNG, 30 Sep - 4 Oct, ITIC/PMEL/NZ GNS), and 4) in Hawaii the International Training Program will be 3-13 September, Tonga, Solomon Islands attending (NOTE: if others interested, note self-funded, but now they need to URGENTLY THIS WEEK send application).

9. The ICG advocated that the [UN Decade of Ocean Science for Sustainable Development \(2021–2030\)](#) foster the conditions for an initiative aimed at enhancing sensing and analysis strategies to enable the rapid characterization of tsunami sources, which it holds as fundamental in transforming the ability of Member States to forecast and warn against local and/or non-seismic source tsunami threats.
10. The ICG recommended that Member States contribute, where possible, to the Decade by sharing existing and new data that advance detection capabilities and promote conceptually this effort within their own policy-making arenas as a demonstration of the progress made in realizing the above-mentioned initiative.
11. The IOC has begun to host regional meetings and two have happened in the Pacific - Noumea, 23-25 July and in Tokyo 28-30 July. Priorities for advancing ocean science targeting tsunami forecasting advances under the Safe Oceans advocating for denser sensing networks (land, ocean, space-based sensors and emerging technology, such as SMART cables), improved coastal bathymetry for inundation forecasting and evacuation mapping (UN Decadal outcome could be global blue line, eg., all coastal communities have established evacuation zone/safe assembly areas), preparedness and community resiliency (such as Tsunami Ready and Weather Ready Nations).
12. The ICG requested Chair of Working Group 3 to develop a draft PTWS Medium-Term Strategy for 2022–2029 to be discussed by the PTWS Steering Committee in 2020, and approved by the next ICG/PTWS session in 2021. This document should have contributions from PICTs working group.
13. The ICG elected Mr Wilfried Strauch (Nicaragua) as Chair, and Mr Ofa Fa'anunu (Tonga) and Mr Yuji Nishimae (Japan) as Vice-Chairs for the ICG/PTWS for the period May 2019–2021.

Pacific Islands Countries and Territories (PICT) Regional Warning and Mitigation working group

1. The PTWC WG noted with the progress made by PICTs in this intersessional period, including;
 - (a) Expansion of the national seismic network from 1 station to 7 new stations in Solomon Islands;
 - (b) Expansion from Seismic to Volcanic Monitoring in Samoa for the only active volcano Mount Matavanu on the big island of Savaii.
 - (c) 13 newly installed Siren within the Suva Peninsula, Fiji through support of New Zealand Government and European Union via SPC;
 - (d) 19 Sirens where 9 are installed in Port Villa and 10 in Luganville Santo;
 - (e) PacWave Exercise 18 conducted and Communication Test performed by Tonga (National Exercise), Solomon Islands, Samoa, Tuvalu and Fiji;
 - (f) Celebration of World Tsunami Day and IDRR Day 2018

- (g) Establishment of Multi-Hazard Early Warning Centre in collaboration with RIMES in PNG;
 - (h) ITIC Training conducted in Fiji and Kiribati in 2017;
 - (i) Tsunami Ready piloted in Samoa and progress underway in Tonga;
 - (j) Installation of 2 permanent tide gauges in Niuatoputapu and Vava'u in Tonga in 2019
2. The PICT WG agreed to continue to Pilot Tsunami Ready Program and TEMPP in Samoa, Tonga, Vanuatu, with the addition of Cook Islands, Solomon Islands and Fiji and review the Tsunami Ready Checklist for schools and communities in PICT;
 3. The PICT WG approved the development of a quarterly Newsletter for the WG-PICT to facilitate collaboration and to inform members of work progress and to be part of the routine work of the IOC Technical Officer based in Suva, Fiji.
 4. The PICT WG agreed on the following member countries Australia, Vanuatu, Tonga, Samoa and Fiji to participate in the demonstration (pilot) of the NTWC competency framework once it is finalized and report on progress and lessons learnt;
 5. For the IOC Secretariat and member countries to develop an online survey on warning and mitigation capabilities in the Pacific Island Countries and Territories.
 6. The PICT WG further noted the gaps that exist in PICT that needs special attention in the 2019-21 intercessional period
 - (a) Lack of technically competent NTWC personal to maintain 24/7 operations;
 - (b) Lack of capacity for tsunami modelling and development of inundation and evacuation maps;
 - (c) Need for upgrade and extension of local seismic stations
 - (d) Lack of SOPs for warnings and response in some Member states
 - (e) Arrangements for Warning services for another state
 - (f) Need for SeisComp3 training and Need to establish backup and warning contingencies for warning centres in Members States and Territories e.g. ORSNET shutdown
 - (g) Piloting and testing the guidelines on local tsunami and the competency framework for watch keepers at NTWCs
 7. The PICT WG raised its concerns of the following:
 - (a) the continued challenge of limited funding to support the annual meeting of the PICT WG;
 - (b) the decision by the US not to maintain the of the 2 DART buoys along the Tonga Kermadec Trench
 - (c) that a decision still has not been reached by Samoa and New Zealand on who provides tsunami warnings for Tokelau.

(d) The RANET SMS Alert messaging still not resolved

8. The Working Group and its Task Team on Capacity development were re-established Dr. Jerome Aucan (New Caledonia) and Ms. Eslie Garaebiti (Vanuatu) were elected as co-chairs for the 2019-21 period.

Recommendations:

1. The Meeting is invited to:
 - **Note** the progress and updates from the work of the ICG/Pacific Tsunami Warning System and the PICT Regional Working Group on Tsunami Warning on
 - **Acknowledge** IOC, WMO, and other partners for supporting collaborations in progressing development of the global tsunami warning system.
 - **Invite** PMC Members that provide tsunami warnings to review the competency framework for tsunami warning personnel version 1 and the guidelines for local tsunami source best practice version 1 and provide feedback to the Chair of the IOC PICT Regional WG of the ICG together with any input recommendations for improving the PTWS.
 - **Recommend** the Chair of the PIMOS panel to work with the Vice Chair of the ICG/PTWS and the Co-Chairs of PICT Regional WG on Tsunami warning and Mitigation to ensure that marine observations, communication infrastructure and other marine and ocean objectives related to tsunami warning and response are aligned with the ICG/ PTWS objectives.
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