

ICG-PTWS
12th-15th september, 2023
Nuku'alofa, Tonga



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Report on WG2 Activities to the 30th Session of the ICG- PTWS

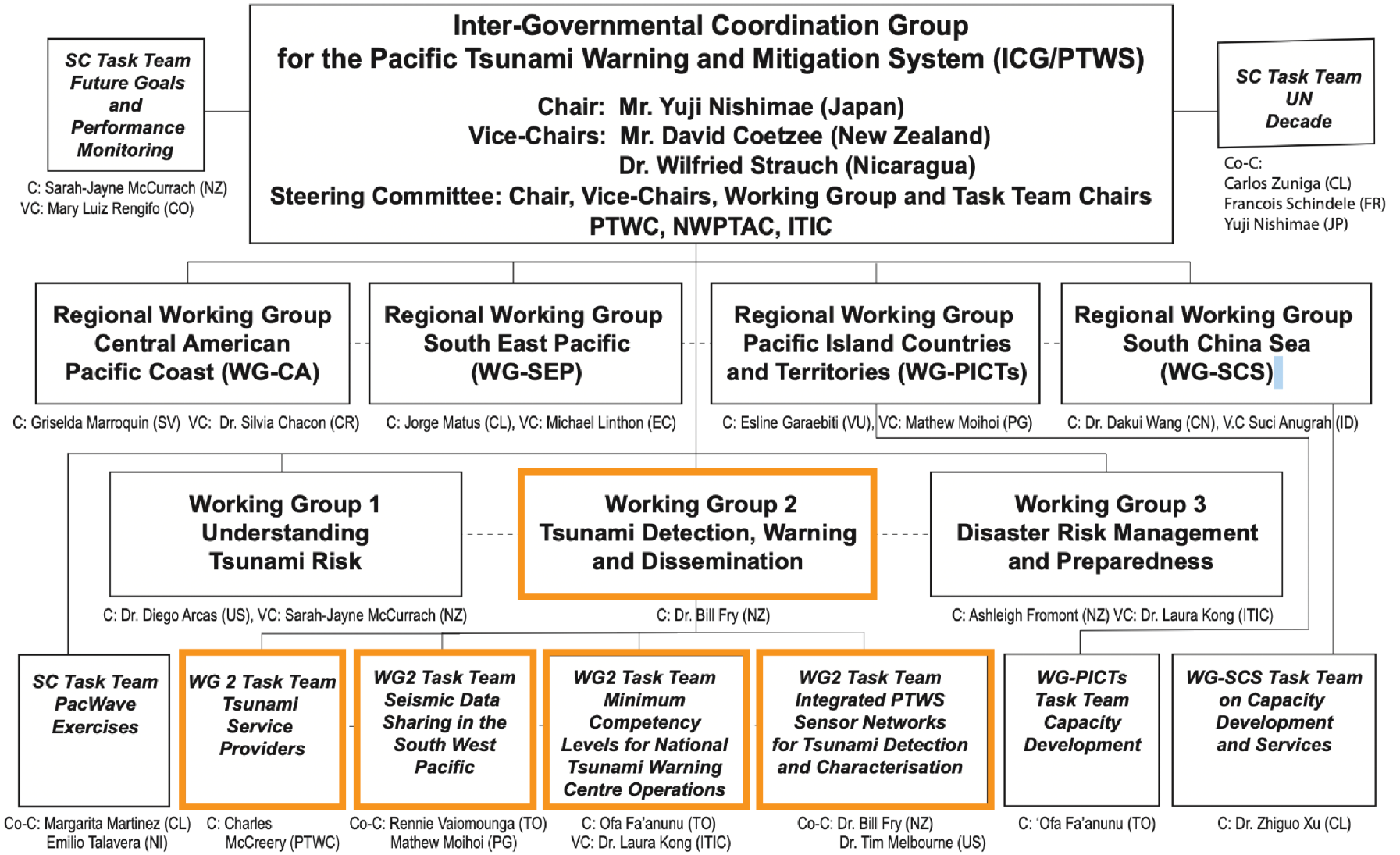
Bill Fry, New Zealand
Chair WG2

IOC ICG/PTWS STRUCTURE - WORKING GROUPS AND TASK TEAMS 2021-2023



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Approved ICG/PTWS-XXIX Dec 2021, update Dec 2022

TT Minimum Competency Framework (Co-Chairs Laura Kong and Ofa Fa'anunu)

- Tiered framework for minimum competencies for NTWC (Agenda item 4.3)
- Framework is intended to be adaptable, able to incorporate lessons learned during future events and with future gains in knowledge and processes
- Assuming conditions around assessment of efficacy and if the framework is accepted by the ICG-PTWS, WG2 proposes to disband this task team.

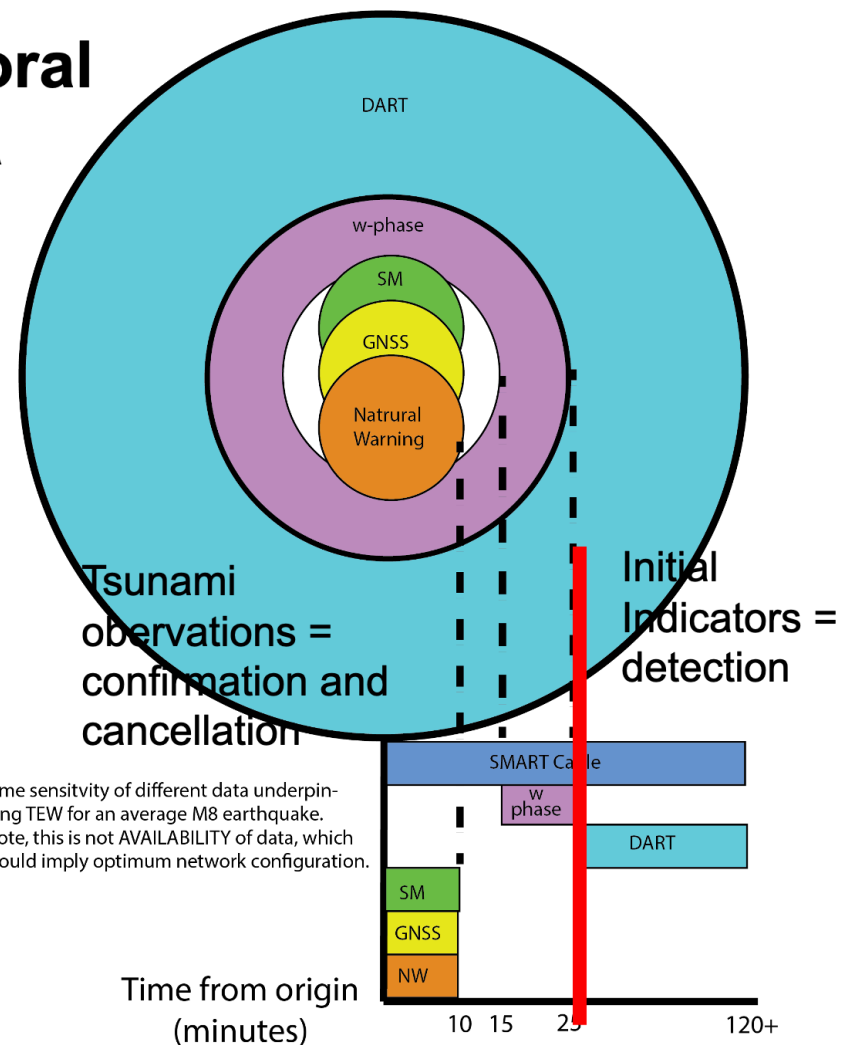
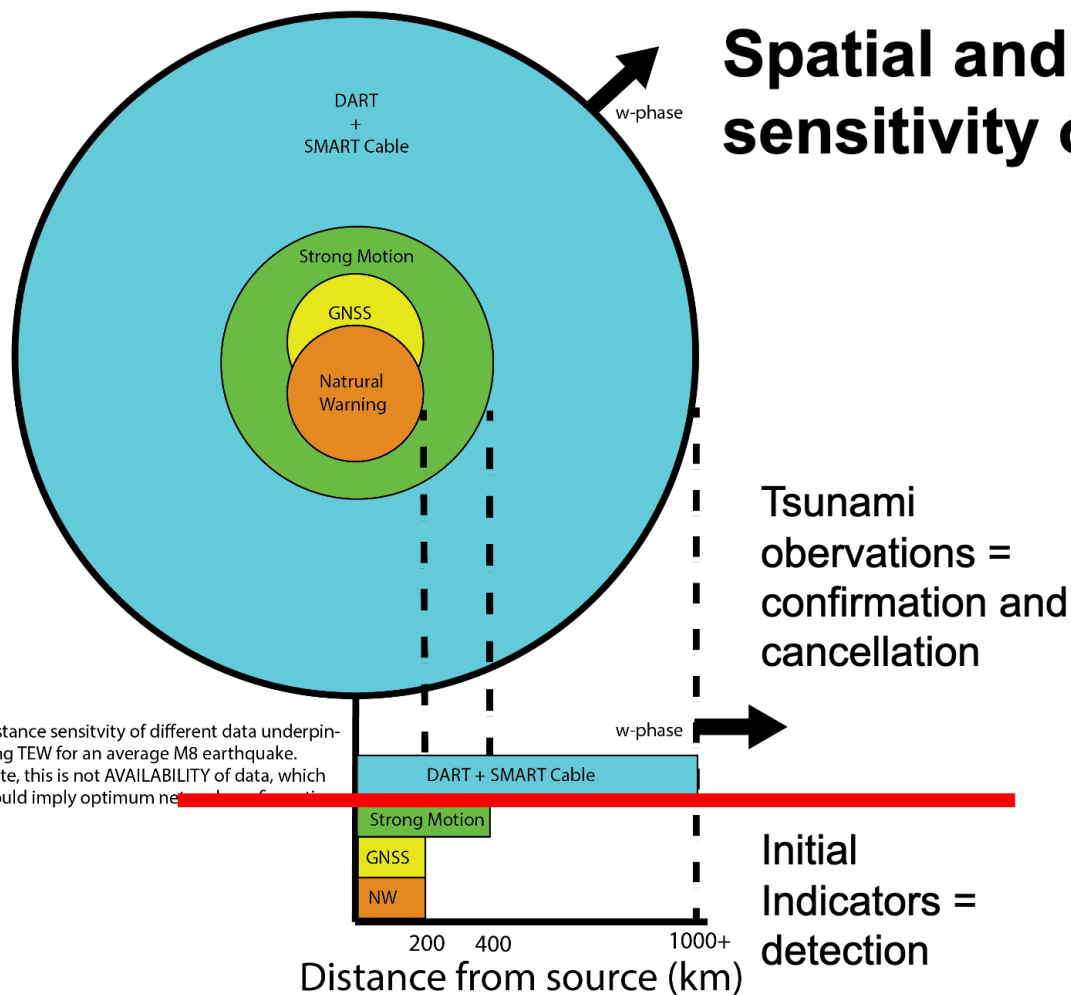
TT Integrated PTWS Sensor Networks for Tsunami Detection and Characterisation (Co-Chairs Tim Melbourne and Bill Fry)



Agenda item 4.4

- Developing a methodology for gap and sensitivity analysis that combines multiple sensing technologies for tsunami detection and characterisation.
- Integrating emerging techniques and sensor technologies (e.g. better use of tide gauges; GNSS technology and processing; sensors on telecom cables) with the existing sensing network to meet tsunami warning service requirements.
- Where possible, include cost-benefit analysis of the potential technologies being considered

Spatial and temporal sensitivity of data



Tsunami observations are required for source-independent TEW

TT Integrated PTWS Sensor Networks for Tsunami Detection and Characterisation (Co-Chairs Tim Melbourne and Bill Fry)



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- Noting the IUGG expertise in geodesy and geophysics, the establishment of the Geodetic Tsunami Early Warning Systems (GeTEWS) initiative in the southwest Pacific and recognising the complex and broad nature of advance in the field of geodetic monitoring of tsunamis, WG2 requests the ICG/PTWS establish a WG2 TT to support alignment of PTWS and GeTEWS efforts.

TT TSP (Chair Charles McCreery)



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- Expansion of the source zone to include the Scotia Arc, southern Atlantic (Agenda item 4.5)
- Proposal for maritime products (Agenda item 4.6)
- Common TSP Users' Guide framework (Agenda item 4.7)
- Phasing out of telefaxing messaging
- WG2 proposes the continuation of TT TSP

TT TSP – phasing out telefaxing

- Telefaxing is old technology that has become increasingly problematic.
- Telefax signals can become degraded and fail when they transit long distance passing back-and-forth between analog and newer digital VoIP telephone lines.
- In 13 product disseminations made by PTWC in May of 2023, telefaxes failed every time for 44 of 65 designated telefax numbers
- PTWC's simultaneous telefaxing is done by a commercial provider, and each fax attempt costs around US\$5
- Each fax is attempted 5 times by the provider before giving up.
- So, for May of 2023, *13 product disseminations x 44 failed fax numbers x 5 attempts before giving up x US\$5 = US\$14,300 on failed faxes.*
- The other PTWS TSPs are also experiencing telefaxing problems.

WG2 recommends:

- That the ICG/PTWS request the IOC to send a letter to all Member States informing them of the plan to terminate telefaxing as a method of receiving PTWS TSPs text products and also that PTWS TSPs will begin to cease attempting to fax to all numbers that now routinely fail.
- That the IOC request Member States to respond if termination of TSP fax services will result in an unacceptable risk of not receiving TSP text products (for example if they would now have only a single method to receive products).
- That the ICG/PTWS to provide suggestions for alternate methods of disseminating TSP text products in order to ensure that all Member States have reliable and redundant methods.
- That the ICG/PTWS set a target date to cease all telefaxing by the TSPs except to certain numbers at the discretion of each TSP.
- That PTWS TSPs and the Member States explore and implement alternative dissemination methods to ensure all Member States continue to have reliable and redundant means for receiving TSP text products.

TT Seismic Data Sharing in the SW Pacific (Co-Chairs Rennie Vaiomounga and Mathew Moihoi)

- **WG2 requests** the ICG-PTWS review the outcomes of the 7th ORSNET meeting presented in Appendix 4 of this report.
- **Noting** the complementarity of TT Seismic Data Sharing and ORSNET and noting the regional focus of this task team, **WG2 recommends** ICG-PTWS consider moving the TT Seismic Data Sharing from WG2 to the Pacific Island Countries and Territories Working Group (WG PICT).

WG2 other matters arising

- **WG2 recommends** the ICG/PTWS adopt the recommendations contained in the TOWS TT on Tsunamis Generated by Volcanoes. We note that the recommendations of establishment of new monitoring infrastructure may be beyond the capabilities of Member States. WG2 therefore recommends the establishment of TT to explore options for developing alternative warning strategies for TGV.
- **WG2 recommends** establishment of a permanent HTHH monitoring and warning system based on the products and method in place since March 2022 and presented in the CL 2882 and CL2902.

WG2 other matters arising, Continued

- **Noting** the vast amount and variable nature of non-earthquake tsunami sources in the historical record, and the challenge of forecasting most non-earthquake tsunamis, WG2 **recommends** the establishment of a TT to investigate the use of TEW strategies based on direct tsunami observations.
- **Recognising** the increase in scope and complexity of WG2 through the requested establishment of an additional 2 TT, bringing the total number to 5, and rapid advances in TEW methods, WG2 recommends the addition of 2 vice-chair roles to support the WG in the XXXI intersessional period.
- WG2 **requests** the ICG/PTWS solicit confirmation of current members of WG2 and nominations for additional representatives from Member States.



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**Thank you very much for
your kind attention.**