ICG/PTWS

TSP Arrangements to Ensure Service Provision at All Times for Full Area of Service

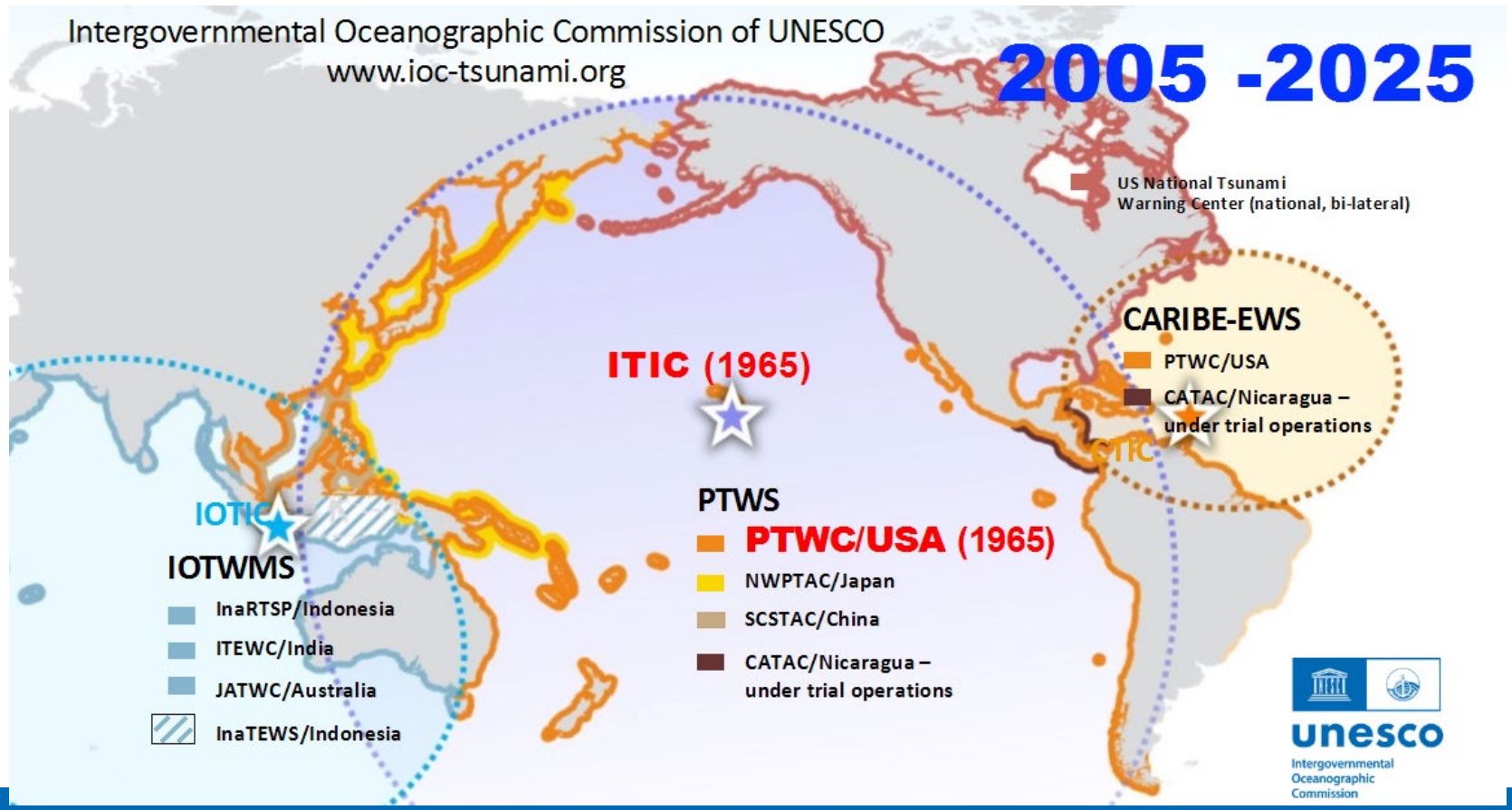
- To respond the TOWS-WG-XVIII/3 Recommendation:
  - Establishing arrangements among Tsunami Service Providers (TSP) within each ICG to ensure that service provision is ensured at all times for full Area of Service of the ICG;

Service Area of PTWS TSP

- South China Sea (SCS)
- Northwest Pacific (NWP)
- Pacific side of Central America (CA)
- Other Area

- Specifically

Alaska &
Canada Pacific coastlines & Partical marginal seas of **Indonesia** are provided by national providers so not covered by TSPs



ICG/PTWS

TSP Arrangements to Ensure Service Provision at All Times for Full Area of Service

- WG2 Task Team on Tsunami Service Providers (TT-TSP) reviewed the current status of service through a virtual meeting held in August 2025 and recognized that:
  - USNTWC plays the role of the back-up center for the PTWC. From the point of this view, either the PTWC or the USNTWC can continue the tsunami services in the whole Pacific.
  - Additionally, the CATAC (trial operation), the NWPTAC and the SCSTAC cover their Area of Service. The Hong Kong Observatory cover the South China Sea as the back-up center of the SCSTAC.
- Need further discussion
  - **Alaska** and **Canada** pacific coastlines and marginal seas of **Indonesia** are outside of the AoR of any PTWS TSPs
- TT-TWO is invited to recognize the above recognition.

Matrix of the PTWS TSP coverage
Primary (+) and Backup (-)

Service Area	SCS	NWP	The Pacific side of CA	Other Pacific Area except Alaska, Canada, and Marginal seas of Indonesia
TSP/NTWC	+PTWC-USNTWC	+PTWC-USNTWC	+PTWC-USNTWC	+PTWC-USNTWC
	SCSTAC (+NMEFC -HKO)	NWPTAC	*CATAC (Provisional)*	

ICG/PTWS TSP User's Guide Revision & Related Issues

- ICG/PTWS-XXVIII.2 Recommendation;
  - **Decided** The existing and emerging TSPs create or revise their current individual TSP user guides with a similar structure and content
- According to a standard structure of TSP User's Guides provided by WG2 (Appendix 2 ICG/PTWS-XXX.8 Recommendation), TSPs are still revising User's Guides
  - ICG/PTWS-XXXI **reviewed** NWPTAC and PTWC revised User's Guides
  - ICG/PTWS-XXXI.4 **requested** that PTWC eliminates that section naming coasts with less than 0.3 meter amplitude forecast and include clarifying language about the application of key text product statements - that they are advice only and only for PTWS coasts
  - SCSTAC revised User's Guide was **reviewed** in the WG-SCS-XIII Novermber 2025

ICG/PTWS TSP User's Guide Revision & Related Issues

- ICG/PTWS-XXXI.3 Recommendation;
  - **requested** WG2 TT-TSP to create a common standard for naming forecast points and polygons in their User's Guides
  - **requested** TSPs to consider to add an event identifier in the email subject of their bulletins for user's convenience

- In the TT-TSP virtual meeting in August 2025
  - **agreed** to share and check the information on the forecast points and polygons in the latest users' guides as well as the KML file made by the PTWC
  - **recommended** that the IOC Technical Secretary inquires with the Member States to confirm the names of the forecast points and polygons after TT-TSP's comparison
  - **agreed** that each TSP chooses necessarily elements for the identifier on its responsibility, necessarily including the TSP name, the origin time of an earthquake and the bulletin no., redundantly including the location and magnitude of the source
  - **recommended** to discuss the CAP format after the next TOWS-WG

ICG/PTWS Tsunami Forecasting from Ocean Observation

- ICG/PTWS-XXXI.11 Recommendation;
  - **Continued WG2 Task Team on Forecasting from Ocean Observation (TTFOO)**

- Advances achieved by TTFOO since ICG/PTWS-XXXI
  - Explored novel data and forecasting within the context of ODTP (to be presented in Agenda item 5.1)
  - Entered and/or continued multi-data partnerships with:
    - JTF SMART Cables (focus on TamTam deployment, Agenda item 5.2)
    - GNSS-TEC (partners Sapienza University, US NASA JPL Guardian)
    - GNSS network proliferation and open-data (partner GeTEWS - Oceania)

      GeTEWS: GNSS Enhancement of Tsunami Early Warning Systems
- Extended risk-based network efficacy analysis to include quantification of future advances in SMART Cables, quantum sensing on fibre-optic cables and GNSS TEC

ICG/PTWS Hazard Assessment and Early Warning for TGV

unesco
Intergovernmental Oceanographic Commission

- ICG/PTWS-XXXI.11 Recommendation;
  - **WG2 continues the Task Team for Tsunami Generated by Volcanoes**

- ADVANCES achieved by TTTGV since ICG/PTWS-XXXI (to be detailed in Agenda item 4.1)
  - Launched work to quantify hazard from TGV.
  - Extended TGV database in the south Pacific to include 69 submarine volcanoes (additional sources to those published in IOC Technical Series 183)
  - Published database of volcanoes with tsunami travel times to coastlines and DART buoy locations.
  - Initiate work to develop a prototype response early-warning framework based on the Geoscience Australia procedures presented at ICG/PTWS XXXI
  - Include TGV in the risk-based network efficacy analysis

ICG/PTWS Communication Test & NAVAREA Products

- ICG/PTWS-XXXI.3 Recommendation;
  - **requested** WG2 TT-TSP to investigate the implementation of such modality by the ICG/PTWS TSPs in order to eliminate the need to issue IOC Circular Letters for such regular activity of operational nature
- TT-TSP virtual meeting in August 2025
  - **affirmed** that the CL of the IOC is no longer used for notification of the communication test and agreed to maintain the current procedures.
- ICG/PTWS-XXXI.4 Recommendation;
  - **considering** that the Pacific Tsunami Warning Center as a TSP that covers all coasts of the PTWS has agreed to provide this service for the PTWS and has designed such products, conducted a communication test with Pacific NAVAREA Coordinators, and produced a draft guide to those products,
  - **requested** PTWC to implement the products in 2025 following the next meeting of the WWNWS in September 2025.
- Dr Charles McCreery will be invited to report under Agenda item 3.3

ICG/PTWS Other Progress on Tsunami Warning Operation

- Kamchatka earthquake and tsunami response
  - Analyzed effectiveness of the PTWS
    - Post-Event Assessment questionaire was distributed on 8 August through IOC CL 3052
    - Post-Event Brief on 13 August was organized, focusing on TSP and NTWC's emergency reponse
    - Quantification of forecasting accuracy based on seismic and DART observations
- Launched partnership with the Global Tsunami Model
  - 2028 goal to support Member State capability building in inundation mapping and hazard and risk analysis
  - Develop open-source scenarios to underpin advances in early warning and forecasting
- Developed prototype information-sharing platform for SW Pacific
  - Collect various of earthquake and tsunami information from different agencies
  - Issue alarm notification