



National Assessments of the Tsunami Warning and Mitigation Systems of 14 Pacific Island Countries

SOPAC

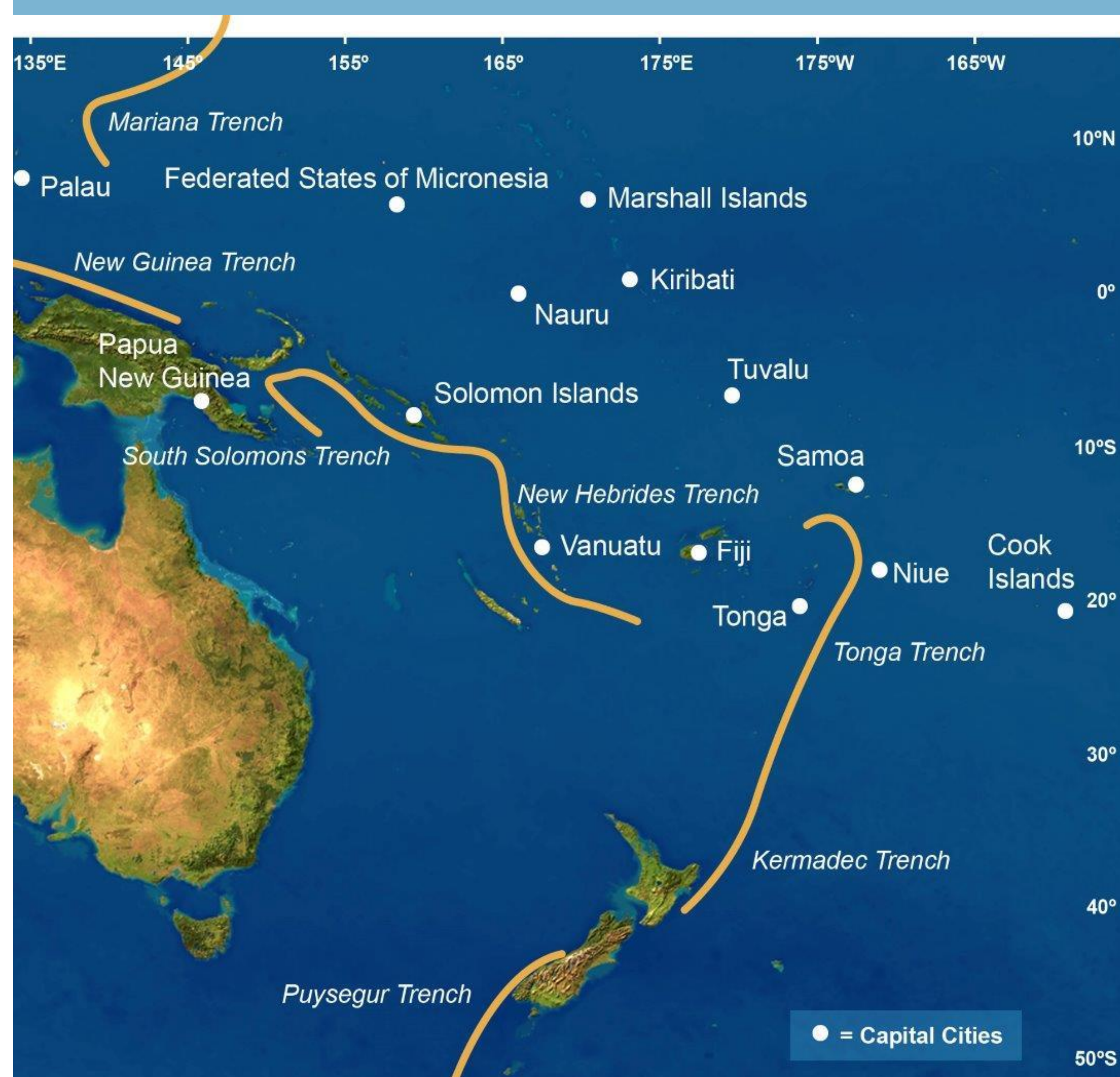
Australian Government

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The Tsunami Capacity Assessment Project (the Project) assessed the capacity of 14 individual Pacific Island nations to manage tsunami events, providing a benchmark and better guiding national and donor strategic effort and funding towards achieving targeted system improvements. Country and regional recommendations were made and compiled as a series of Project reports for each nation. A number of follow-on activities were undertaken as a result of the assessment findings.

The Countries and Approach

The fourteen Pacific Islands Applied Geoscience Commission (SOPAC) Member Countries who participated in the Project were the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu. The Project involved some 500 people from 300 organisations across the 14 countries. Visits and workshops were conducted between mid-2007 to 2009 and a questionnaire completed in each country based on a similar process undertaken in the Indian Ocean by UNESCO's Intergovernmental Oceanographic Commission (IOC) following the 2004 tsunami. Workshop participants across government, private and community sectors came together to discuss tsunami management in their country with the support of international experts.



The location of Pacific Island countries involved in the Tsunami Capacity Assessment Project as denoted by their capital cities in relation to regional and local subduction zones (in orange)

Outcomes

The key outcome of the Project was internationally recognised National Reports, which formed a consolidated Regional Report in 2010 outlining recommendations to enhance tsunami warning and mitigation systems in the region. The recommendations made at a national level were ranked by priority and resource intensity. This assisted in identifying tasks that could be addressed by nations using existing resources, as well as more complex and resource intensive actions that would require technical and development partner assistance.

Follow-on Activities

The Project provided a basis for a number of follow on activities, two of which are described below. The Project's reports were also used by the Australian Government in its response to the 2009 tsunami that impacted on Samoa and Tonga. Utilisation of the Project in the region could be further enhanced by targeted partner, donor and in-country actions that align to the recommendations.

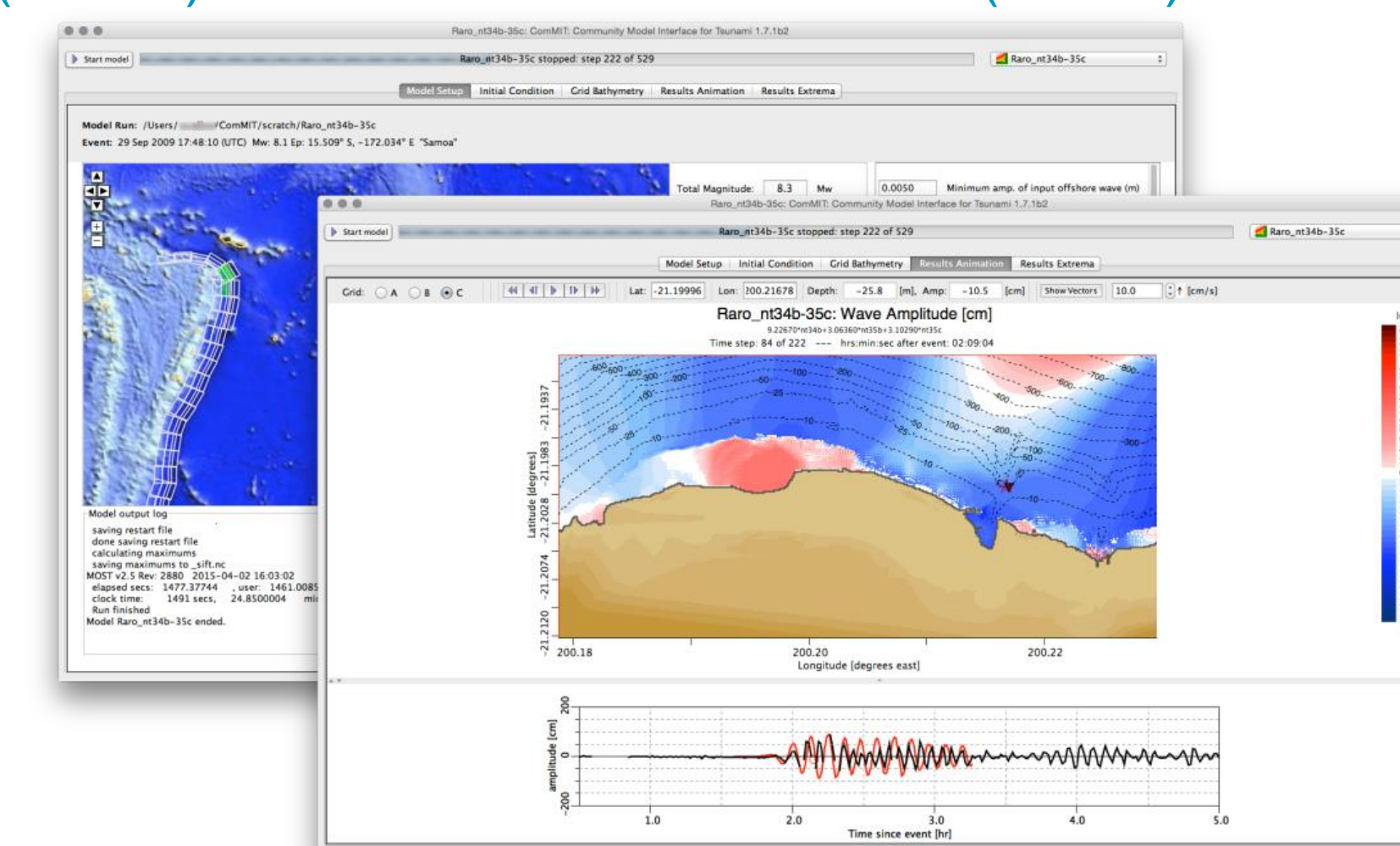
Solomon Islands Tsunami Capacity Development Project

(Funded by AusAID and implemented by the Australian Bureau of Meteorology in 2010/11 with SOPAC, Pacific Tsunami Warning Centre (PTWC) and frontline agencies in Solomon Islands)

Completed in 2010, this project built the capacity of the local disaster management, meteorological and other frontline agencies to undertake a co-ordinated approach to tsunami emergency management in the Solomon Islands. It included implementation of a tsunami threat assessment method that allows the agencies to translate international warnings from the PTWC to the provincial level. A national tsunami emergency sub-plan and tsunami warning templates were developed and standard operating procedures for the National Disaster Management Office were drafted. A functional tsunami emergency exercise was conducted in 2011 before a real tsunami, generated by the Great Tohoku Earthquake on 11 March 2011, put the process into action.



Officers from the Solomon Islands Police and Provincial Disaster Management agencies plan (above) and the ComMIT Software (below)



Community Model Interface for Tsunami (ComMIT) Training

(Funded by AusAID and implemented by the Australian Bureau of Meteorology with the United States National Oceanic and Atmospheric Administration (NOAA) Center for Tsunami Research and UNESCO/IOC)

Developed by NOAA, the Community Model Interface for Tsunami (ComMIT) is a tool that allows the construction of tsunami inundation maps under different scenarios for planning and for real-time tsunami forecast applications. Four ComMIT training courses were run between 2012 and 2014 in Sydney, Tonga, Fiji and the Cook Islands training a total of 71 participants across the Pacific Island Countries. Recommendations made by the Project around identifying and evacuating communities at risk as well as tsunami inundation modeling and its related bathymetric and topographic data needs formed the basis for this training. At the completion of the training, 12 Pacific Island Countries had trained ComMIT users capable of producing the first generation of maps that show areas most at risk of tsunami flooding.

Partners

Funded by AusAID, the Capacity Assessment Project was led by the Australian Bureau of Meteorology in partnership with each Country, SOPAC and the Australian Attorney-General's Department. Other partners involved included the Intergovernmental Oceanographic Commission, a division of the United Nations Educational, Scientific and Cultural Organization (UNESCO/IOC), NOAA, the Tasmanian State Emergency Service, the New South Wales State Emergency Service and the University of Guam.

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