



South Pacific Sea Level and Climate Monitoring Project

Description



ESTABLISHMENT, Phase I: July 1991 to June 1995: 11 SEAFRAME (Sea Level Fine Resolution Acoustic Measuring Equipment) **monitoring** stations were established at Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu and Samoa. All are located on wharves. A system for transmitting the data via satellites and telephone links was put in place, and computer databases were established at the then National Tidal Facility Australia (NTFA) at Flinders University in Adelaide, for processing, analysing, archiving and making the data available to the international community.

MONITORING, QUALITY ASSURANCE AND DEVELOPING THE RECORD, Phase II: July 1995 to December 2000: The NTFA provided tidal charts and sea level data to regional partners which were used in navigation, **planning** for coastal **development** and forecasting of weather **hazards**. Between eight and nine years of data at various sites had been collected by the end of Phase II.

PRECISION RECORDING AND CAPACITY BUILDING, Phase III: January 2001 to December 2005: The 11 SEAFRAME stations continued to record sea level and **climate** data. A new SEAFRAME station was established at Pohnpei, in the **Federated States of Micronesia** (FSM), bringing the number of stations in the network to 12. Feasibility and design studies into two more possible stations in Palau and Niue were undertaken but these did not proceed to implementation. Regional technical involvement through the South Pacific Applied Geoscience Commission (SOPAC) was introduced, and information products and scientific studies were expanded. A major new initiative in this Phase was the installation of a Continuous Global Positioning System (CGPS) network linked to the SEAFRAME sites and managed by Geoscience Australia. The CGPS network is designed to monitor vertical movement of the gauges and help determine absolute sea level. Ten of the 12 CGPS stations planned were installed. During this Phase the NTFA became a part of the Australian **Bureau of Meteorology** and was renamed the National Tidal Centre (NTC), with its offices collocated with the Bureau's South Australian Regional Office in Adelaide.

MONITORING, REPORTING AND REVIEW, Phase IV: January 2006 to December 2010: This Phase is being managed and operated by the **Bureau of Meteorology** in partnership with AusAID, SOPAC, Geosciences Australia and National Meteorological Services within the Pacific Island countries. The 12 SEAFRAME stations are continuing to record and the data is continuing to be processed by the NTC. The remaining two CGPS stations of the CGPS network will be installed in the Marshall Islands and the Solomon Islands. A strategic review of the Project will be undertaken during Phase IV to define an investment strategy for the long-term viability of the network and to explore synergies with other **climate monitoring** activities in the Region.

Project Status

Completed

Start Date

Saturday, June 1, 1991

End Date	Saturday, June 1, 1991
Short Title	SPSLCMP
Project Type	Capacity Building Community Awareness Pilot / Trial / Demonstration Project
Project Scope	Regional
Project Objectives	<ol style="list-style-type: none"> 1) Maintain the investment in existing and new monitoring infrastructure. 2) Continue the core process of collecting, analysing, storing and disseminating high quality sea level data from the SPSLCMP stations. 3) Increase regional and local level participation in project activities. 4) Enhance institutional capacity through training and technology transfer; and 5) Improve information and data exchange between partners and stakeholders.

? Submitted by pccp_content on Sat, 19/09/2015 - 15:12

Implementing Countries

[Cook Islands](#)
[Federated States of Micronesia](#)
[Kiribati](#)
[Marshall Islands](#)
[Nauru](#)
[Papua New Guinea](#)
[Solomon Islands](#)
[Tonga](#)
[Tuvalu](#)
[Vanuatu](#)

Related Links

[South Pacific Sea Level and Climate Monitoring Project website](#)
[South Pacific Sea Level and Climate Monitoring Project: Phase IV](#)

Implementing Organisation(s)

[Australian Bureau of Meteorology](#)

Development Partner Contacts

[National Tidal Centre](#)

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