

**AUSAID PROJECT  
PACIFIC ISLANDS – CLIMATE PREDICTION PROJECT  
(PI-CPP)**

**“Climate Data Security”**

**Mission to Tonga  
8<sup>th</sup> to 25<sup>th</sup> May 2008**

**NAME OF OFFICER:** Matthew Bastin, National Climate Centre

**MISSION**

To travel to the Kingdom of Tonga Meteorological Service (TMS) to undertake a series of activities associated with Climate Data Rescue, Records Management and Data Management. As part of this program, the steps involved are to:

- Conduct an audit of the data holdings of the TMS held as paper records.
- Produce an inventory of climate data records (which exist mostly in paper-based forms);
- Where necessary, take immediate action to secure data in imminent danger of deterioration or loss;
- Provide training to TMS staff in effective records management (thereby contributing to Australia’s capacity-building activities in the Pacific region).
- Install on TMS computers a self-contained Climate Database Management System (ClimSoft), approved by WMO as a system suitable for generic use in developing countries;
- Ingest existing and current TMS meteorological surface data prepared for ClimSoft system.
- Instruct officers of the TMS in the operation and use of the ClimSoft system, and provide hands-on assistance to their staff as they practice the required skills;
- Conduct any discussions and provide assistance Climate Monitoring activities including the dissemination of CLIMAT messages from TMS for GCOS CBS Lead Centre Co-ordinator RA V.
- To travel to Fiji to undertake Climate Data Management discussions and for maintenance of ClimSoft software

**REPORT ON THE MISSION**

I reported to the Fiji Met Service (FMS) on Friday, 9<sup>th</sup> May where I assisted the Climate Section where possible, with immediate concerns of Climsoft. I met with the Director of FMS Mr Rajendra Prasad along with Climate staff Simon McGree and Vara Vuniyayawa where Climsoft issues were discussed.

The visit began in the Tonga Met Service (TMS) on Monday, 12<sup>th</sup> May with an inspection of the extent of the paper record holdings. These records were kept on shelves and cupboards in a storage room adjoining the room dedicated to climate operations. This storage room was not air-conditioned. The TMS director, Mr Ofa Fanunu was aware of the benefit to the preservation of these records if the room was air-conditioned.

The paper records were generally in good order and mostly organised by date and station by TMS staff. The earliest daily records were no older than the current electronic holdings. There were however, older monthly summaries of rainfall and wind data dating back to end of WW II

Sorted records were bundled and tied using the acid free cotton tape and placed into NAA<sup>1</sup> quality boxes. The archival boxes and tape were delivered from the Bureau prior to my arrival specifically for this project. The boxes were labelled after packing using a numbering system consistent (but independent from) other projects of this nature for Pacific Islands countries. At the completion of this part of the project the continuation of the inventory becomes the responsibility of the TMS.

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<sup>1</sup> National Archives of Australia

Climsoft training and implementation commenced on Thursday, 15<sup>th</sup> May. Climsoft and MySQL were re-installed on the SCOPIC<sup>2</sup> PC. The first task was to modify the element codes in Climsoft to match those of Clicom. For the correct operation of Climsoft this involved ensuring that all copies (in 3 databases) of this meta data table was exactly the same. Data originally held in spreadsheets of the same format as the Clicom Access table importation was transferred to Climsoft. Other data sources included backup data from NIWA<sup>3</sup> which required re-formatting. These spreadsheets were also used for key entry.

All aspects of the day to day operations of Climsoft were conducted over subsequent days. This included training in the installation of Climsoft, data ingestion from other electronic sources and data key entry. A backup copy of Climsoft and the data was installed on a second PC (laptop).

## **SUMMARY ASSESSMENT/VALUE OF MISSION**

ClimSoft was successfully installed and data entry has begun from existing electronic sources and new key entry from hand written meteorological logs.

The main aim was to build a capacity for TMS staff to maintain electronic data record management. This visit has successfully accomplished this objective.

It was unfortunate that a new Climate staff member of the TMS was not able to be present during my visit. This means that only one staff member of the TMS, Ms Seluvaia Finaulahi with expertise in Climsoft.

## **RECOMENDATIONS**

1. Ongoing support by telephone and email offered to the extent that it is within the limitation of our resources and not impinging on core activities.

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<sup>2</sup> SCOPIC SCOPIC was developed under the *Pacific Islands Climate Prediction Project (PI-CPP)*, which is managed by the Australian Bureau of Meteorology, and funded by the Australian Agency for International Development (AusAID)

<sup>3</sup> NIWA is the National Institute for Water and Atmospheric Research in New Zealand.