

Component 1: Design and Establishment of Sea Level/Climate Monitoring Network

Regional Archiving Centre (RAC)

During last period, an agreement was signed with the Centre of GeoSpatial Studies, UWI/St. Augustine, Trinidad and Tobago for the establishment of the CPACC Regional Archiving Centre (RAC) at that institution. A Co-ordinator for the RAC has been contracted, and the transfer of the satellite ground station from the site of VITEL to UWI/St. Augustine was initiated. This transfer will be completed during the first quarter of 2001. A web server and network interface has been installed, and data archive/retrieval will be initiated as soon as the ground station is in operation. Data archiving of the existing data is currently underway.

The responsibilities of the RAC Coordinator include Initial Quality Assurance/Quality Control (QA/QC) of the sea level meteorological data; summary and analysis of sea level and sea surface temperature data; to ensure data delivery through interaction with the Regional Network Coordinator (RNC) at CIMH; and the National Meteorological Offices. The RAC Coordinator will also support the development of applications of sea-level data including tidal predications for the countries involved in the project.

RAC Website. The RAC Website will be restructured completely in January 2001 and it is planned to be publish by February 2001, and executing any necessary changes by March. Completion of the RAC Website involves the restructuring of the existing RAC Demo web site to facilitate the new database and improved web efficiency. Once completed the RAC website will be published on the Internet for worldwide access. It is hoped that the website will be published internally (UWI, St. Augustine) via the server at the Faculty of Engineering. If this option cannot be facilitated an alternative method of contracting an Internet Service Provider (ISP) will be executed. The Website will serve as the data repository for all C1 generated data.

RAC Office. The RAC Office will be established in February 2001. More specifically, the Satellite station will be set-up as well as the inner office continues to being set-up. The refinement of the office set-up it is planned to occur on March. The installation of the satellite bas station is dependent on the execution of minor structural changes to the RAC site by the University of the West Indies, St. Augustine, Works Department. Upon the execution of the changes required the relevant personnel would be contacted to execute the installation. After installation a testing period will be initiated to ensure proper functionality.

Operation, Maintenance and Calibration of monitoring systems

During last period, the Caribbean Institute of Meteorology and Hydrology (CIMH) took over the responsibilities as RNC for CPACC. Procedures were established for monitoring station trouble shooting and instrument calibration verification. During this period, the RAC Coordinator and the RNC technical Officer will be working systematically to address all instrumentation and data transmission problems that were observed in a number of the monitoring stations. The RNC Technical Officer will implement the instrument rotation schedule to verify proper calibration of the instruments, and to take corrective action if required.

Hardening of selected Monitoring Sites

The existing C1 sites in St. Kitts (Basseterre) and Antigua (Parham Harbour) have suffered some damage in recent storms. Given the interest of the local meteorological and disaster management communities in being able to count on readings during

extreme events, a hardening of these sites is planned, on a pilot basis. This will involve structural strengthening of the support towers, and re-positioning of some of the instruments. The hardening of these two stations is to be financed by the Post-Georges Disaster Mitigation project managed by the OAS for USAID.

Capacity building at National and Regional levels

- Training of counterparts at the national offices responsible for C1 stations will continue through systematic communication with the RNC, and around visits by the RNC Technical Officer and RNC Advisor to selected countries. The RAC Coordinator will work with the same national offices on strengthening their capacity in retrieving and using data from the monitoring stations.
- Training Manual. The RNC Advisor, the RPIU Public Relations Officer (PRO) and the CIMH RNC Technical Officer will produce a training manual on how to maintain and operate the monitoring stations. It is expected that this manual will be produced as a CD-ROM for easy distribution.

In addition, the following activities will be supported:

- Prepare country specific revenue generation strategies to cover the cost of the long-term maintenance and operations of the monitoring sites;
- Increase participation by land survey departments in the implementation of Component 1;
- Increase private sector involvement in the implementation of C1; and
- Conduct demonstration of “add-on” and “voice” options to the monitoring stations.

Data Acquisition and Archiving System

GPS Data. The GPS data archiving responsibility will be transferred to RAC. Data from NOAA will be transferred to the RAC and the data results of the 1998 campaign will be made available via the RAC Web Site. A GPS processing capacity will be developed for future GPS campaigns.

Sea-level data. The archiving of Sea level data will proceed along the following plan:

- During January 2001 sea level data from: Parham, Antigua 1999; Lee Stocking Is. 1998; Charlotteville, Tobago 1998; and Charlotteville, Tobago 1999.
- During February 2001 sea level data from: Port of Spain, Trinidad 1998; Nassau, Bahamas 1999; Bridgetown, Barbados 1999; and Belize City, Belize 1998.
- During March 2001 sea level data from: Roseau, Dominica 1998; Prickley Bay, Grenada 1998; Parika, Guyana 1999; Rosignol, Guyana 1998; and Discovery Bay, Jamaica 1998.

Data Archiving will proceed systematically, starting with data extrapolation from the compressed database compiled by VITEL, followed by sequential data extraction and final QA/QC.

It is also expected that the preliminary local Tidal datums for each of the CPACC country stations will be determined based on the availability of data.