

WATER LEVEL OBSERVATION NETWORK FOR CENTRAL AMERICA (RONMAC)

QUARTERLY REPORT APRIL 1 – JUNE 30, 2001

**EXECUTED BY THE UNIT FOR SUSTAINABLE DEVELOPMENT AND ENVIRONMENT OF THE
ORGANIZATION OF AMERICAN STATES FOR THE CENTER FOR OPERATIONAL
OCEANOGRAPHIC PRODUCTS AND SERVICES, NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION**

PROJECT DESCRIPTION

Background

In October 1998, Hurricane Mitch, the fourth most intense Atlantic Ocean hurricane on record, battered Central America, resulting in damage estimated in the range of US\$7.5 to US\$8.5 billion for the region. Studies indicate that extreme events such as Hurricane Mitch are common in Central America and are expected to increase in both frequency and severity. Accordingly, a strong commitment is being made by regional governments and donor agencies to strengthen infrastructure and capacity in order to address these issues. The Water Level Observation Network for Central America (RONMAC) project has been devised by the U.S. Government in direct response to the impact of Hurricane Mitch on four Central American countries: El Salvador, Guatemala, Honduras, and Nicaragua.

The Unit for Sustainable Development and Environment of the Organization of American States (OAS/USDE) is executing the project. Other participating agencies are:

- United States Agency for International Development (USAID), Funding Agency
- Center for Operational Oceanographic Products and Services, National Oceanic and Atmospheric Administration (CO-OPS/NOAA), of the US Department of Commerce, as Administering Agency
- Regional Committee for Water Resources (CRRH), as Regional Coordinating Agency
- National agencies in El Salvador, Guatemala, Honduras, and Nicaragua, as direct counterparts and beneficiaries of the RONMAC project

Objective

To provide support for the development and improvement of the geodetic framework of Central America with direct benefits to coastal resources management, coastal hazard mitigation and emergency planning, design and development of coastal infrastructure and harbor facilities, and coastal navigation.

Time Frame

The RONMAC Project is being executed from June 2000 to December 31, 2001. It is fully expected that RONMAC will continue after the official participation of the OAS/USDE and CO-OPS/NOAA has ended, thanks to significant country buy-in and capacity-building activities. CRRH's role as the Regional Coordinating Agency will continue after the Project officially ends.

Activities

1. Install state-of-the-art sea-level and meteorological monitoring stations in El Salvador, Guatemala, Honduras, and Nicaragua;
2. Install ground station and facilitate real-time access to and distribution of information;
3. Update the local MSL data at these stations to support the development of a geodetic framework for Central America;
4. Develop a national and regional capacity to install and maintain the stations and to conduct data acquisition, analysis, archiving and dissemination using automated database management technology; and
5. Strengthen professional and technical skills of host-country agencies and national and regional institutions through technology transfer and capacity building.

KEY ACCOMPLISHMENTS

The key accomplishments during this reporting period include:

- Ground Station Installation training
- Workshop and Steering Committee Planning and Execution
- Station installation, training, and at Puerto Cabezas, Nicaragua
- Station Visit to Puerto Corinto, Nicaragua
- Recognizance of Murciélago Islands, Costa Rica
- Calibration equipment received in Costa Rica and cleared by OAS-Costa Rica Office staff.
- Amendment to Agreement for Technical Cooperation drafted
- Amendment to Sub-Agreement No. 004 with NOAA signed
- Steering Committee Meeting Planning and Execution
- Translation of Sea Level Data Processing Manual
- RONMAC Web-Page Design
- Transfer of Computers from NOAA to OAS
- Planning for Handing-Over Ceremonies
- Troubleshooting
- Other Meetings

They are described below in more detail.

Ground Station Installation Training

RONMAC Staff traveled to Trinidad to participate in a training for ground station installation with staff from Caribbean: Planning and Adaptation to Climate Change (CPACC) and Vitel, Inc. A similar station will be installed this fall at the newly-established Data Quality Control Laboratory (LABCODAT) in San Jose, Costa Rica. This training also provided CPACC and RONMAC staff with an opportunity to collaborate on future linkages between the two projects.

Workshop and Steering Committee Planning and Execution

RONMAC held a technical workshop and steering committee meeting the week of May 14, 2001 in Antigua, Guatemala. RONMAC staff devoted significant time and effort in the coordination of the logistical and technical aspects of these meetings. RONMAC staff participated in both of these events. They were both deemed to be very successful. Attached are the participant evaluations from the Technical Workshop as well as materials from both events.

Station Visit to Puerto Corinto, Nicaragua

CRRH and INETER staff visited the Puerto Corinto Station to resolve problems related to data transmission. The visit was also used as an opportunity for training for INETER staff.

Installation and training at Puerto Cabezas, Nicaragua

A sea-level and meteorological monitoring and data dissemination system was installed in April by RONMAC staff and staff from the Instituto Nicaragüense de Estudios Territoriales (INETER). Data is not yet being received by NOAA due to an unidentified transmission problem, but this should be resolved in shortly. INETER personnel were trained on the installation procedures and system operation and maintenance.

Amendment to Agreement for Technical Cooperation drafted

Upon consultation with NOAA, OAS drafted an amendment to the umbrella Agreement for Technical Cooperation between NOAA and the OAS. This agreement has been in effect for five years and expires in December 2001. NOAA and OAS both foresee future collaboration and this amendment will provide for that. The amendment has been sent to the Legal Department at the OAS for review and then will be forwarded on to NOAA.

Amendment to Sub-Agreement No. 004 with NOAA signed

NOAA and the OAS signed an amendment to Sub-Agreement No. 004. This amendment provides for additional funds for the extension of the Assistant Technical Coordinator's contract by three months and additional travel funds. It also allocates funds to help defray the expense of counterpart institution travel.

Translation of Sea Level Data Processing Manual

RONMAC staff, together with Mr. Pat Caldwell (NOAA/University of Hawaii), translated the Sea Level Data Processing Manual from English to Spanish. This manual was used throughout the Technical Workshop in Antigua, Guatemala and was distributed to the participants for future use.

RONMAC Web-Page Design

RONMAC staff has been working on the elaboration of a greatly enhanced RONMAC web site. This page would provide information on sensor readings, map views, station lists, etc. NOAA has also created a specific web page for easy access to the RONMAC water level station data. Data retrieval is currently blocked pending resolution of a limited number of operational problems.

Transfer of Computers from NOAA to OAS

Eight used computers were officially transferred from NOAA to OAS for use by port authorities at the water level station sites.

Planning for Handing-Over Ceremonies

RONMAC staff has begun planning for "handing over ceremonies" in the RONMAC participating countries. These events will be presided over and organized by the OAS. Equipment will be officially handed over from the US Government and the OAS to the national counterparts. These ceremonies will be utilized to educate policy-makers and the general public on RONMAC activities. A handing-over ceremony will also take place in Costa Rica for the Regional Laboratory for Data Quality and Control.

Troubleshooting

The RONMAC Technical Coordinator and Assistant Technical Coordinator performed on-going troubleshooting activities for all of the stations. They were available to address questions and problems presented by the counterpart institutions and NOAA staff.

Other Meetings

RONMAC Staff participated in the following meetings:

- Contingency Evaluation Workshop for the "Centro de Coordinación de Actividades Meteorológicas e Hidrológicas (CCMH)", March 26th, 2001 (Managua, Nicaragua), March 27th, 2001 (Guatemala, Guatemala), March 28th, 2001 (Tegucigalpa, Honduras), May 16th 2001 (San José, Costa Rica)
- GOOS-IOCARIBE Meeting in Miami, Florida
- IX Latin-American and Ibero-American Meteorological Conference in Argentina
- VIII Argentinean workshop on meteorology, May 7th-11th, 2001, Argentina
- First Training Workshop on Sea Level Data Processing, May 15th-18th, 2001, Antigua, Guatemala
- FAO Latin American meeting, May 27th-31st, 2001, Chile