

**WATER LEVEL OBSERVATION NETWORK FOR CENTRAL AMERICA (RONMAC)
QUARTERLY REPORT
JULY 1* – SEPTEMBER 30, 2000**

**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 Administrating 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;

* Please note that some of the activities included in this report were carried out by the OAS in anticipation of the signing of the sub-agreement regarding the RONMAC Project. This permitted the project to remain on schedule and was carried out with the knowledge and approval of NOAA/NOS staff.

4. Develop a national and regional capacity to install and maintain the stations and to conduct data acquisition, analysis, archiving and dissemination using automated data-base 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:

- Procurement of tidal gauges and meteorological stations underway
- Regional Coordinating Agency determined, and appropriate agreement signed
- Institutional baseline report
- Reconnaissance trip by RONMAC Staff

They are described below in more detail.

Tidal Gauge/Meteorological Station Procurement Underway

During this period, the procurement process for the purchase of one digital ground station and seventeen state-of-the-art sea-level and meteorological monitoring and data dissemination systems was initiated. RONMAC staff conducted an extensive analysis of many manufacturers. It was determined that two companies, (Sutron and Vitel) have the capability of delivering a system that can monitor meteorological parameters under the World Meteorological Organization (“WMO”) Standards and also process both meteorological and sea-level data under NOS/NOAA Standards. Proposals were solicited and bids were received from both firms. The contract was awarded to Vitel on the basis of a cost and technical evaluation.

Prior to requesting proposals from Vitel and Sutron, a RONMAC staff member made site visits to both firms and discussed the project with representatives of each firm. Subsequently, he discussed the technical merits of both firms with the NOS/NOAA technical staff, and then prepared a request for proposal, which was sent to each firm. Based on the proposals received, evaluation by RONMAC staff, the lower price offered by Vitel for the equipment, and Organization of American States’ previous satisfactory experience with Vitel, Inc., and the CPACC project in 1997, the contract was awarded to Vitel, Inc. for the purchase of seventeen (17) state-of-the-art sea-level and meteorological monitoring and data dissemination systems and one (1) digital ground station. Vitel is currently in the process of assembling the equipment.

Regional Coordinating Agency

The Comité Regional de Recursos Hidráulicos (CRRH) was officially designated as the Regional Coordinating Agency for the RONMAC project. The Organization of American States and CRRH signed a Memorandum of Understanding regarding this designation. It details the responsibilities of both organizations. In particular, CRRH is responsible for 1) Analysis and Recommendations of Appropriate Institutions; 2) Coordinate Two Regional Coordination Meetings; 3) Coordinate Two Steering Committee Meetings; and 4) Assist the GS/OAS with communication and with supervision of field work.. *See attached MOU.*

Institutional Baseline Report

The Regional Committee for Water Resources (CRRH), in its role as the Regional Coordinating Agency for the RONMAC project, researched and presented an institutional baseline report. This consisted of a consultant visiting the four RONMAC participating countries and conducting meeting and interviews with the key stakeholders and potential participating agencies. The report serves as a valuable guide for

participation of various institutions and organizations. In addition, it made important suggestions regarding the execution of the RONMAC project and its related activities. *See attached report synopsis.*

Reconnaissance trip by RONMAC Staff

RONMAC staff carried out a reconnaissance trip to Nicaragua, El Salvador, and Guatemala. A reconnaissance trip to Honduras will be carried out in the next quarter. *See attached reconnaissance reports.*

El Salvador

The purpose of the trip was to meet with representatives of Servicio Meteorológico Nacional (SMN) and the Instituto Geográfico Nacional (IGN) to discuss technical aspects of RONMAC project and make a site visit to Puerto Acajutla. Station designs were completed and the equipment was demonstrated to both SMN and IGN staff

Guatemala

The purpose of the trip was to meet with representatives of Instituto Nacional de Sismología Vulcanología Meteorología e Hidrología (INSIVUMEH) and Departamento de Observación e Investigación Marítima (OBIMAR) to discuss technical aspects of RONMAC project and make site visits to Puerto Quetzal and San Tomas de Castillo. Station designs were completed for both sites and the equipment was demonstrated to both INSIVUMEH and OBIMAR staff.

Nicaragua

The purpose of the trip was to meet with representatives of Instituto Nicaragüense de Estudios Territoriales (INETER) to discuss technical aspects of RONMAC project and make site visits to Puerto Cabezas and Corinto. Station designs were completed for both sites and the equipment was demonstrated to both INETER and port staff.