IAA QUARTERLY REPORT

U.S.G. Agency: Department of Commerce
Country: Guatemala
Report Period: October 1 – December 31, 2001
Agency Lead: Curtis Barrett

The following discusses Department of Commerce (DOC) activities and accomplishments for the referenced reporting period. The report is organized by county and further broken down by the problem areas identified in the DOC Implementation Plan (*U.S. Department of Commerce's Implementation Plan for Reconstruction Work in Central America*, July 1999). In addition, Result Indicators in this report are the Intermediate Results (IRs) referenced in the Office of Management and Budget (OMB) Hurricane Mitch Reconstruction Program Tracking System for the Department of Commerce and the Performance Indicators referenced in the DOC Implementation Plan. Where applicable, Mission SpO indicators are provided for reference.

A. DOC Problem Area: Base Infrastructure Reconstruction

Problem Area Objectives:

- Provide a foundation for ongoing reconstruction efforts
- Reconstruct and improve weather forecast and early warning networks
- Promote safe and efficient air and marine transportation
- Provide for a geo-spatial data and water level reference framework
- Ensure that capacity exists to maintain and expand new base infrastructure

B. DOC Activities:

--Reconstruct and improve geodetic networks
--Reconstruct and improve hydrometeorological data collection networks
--Reconstruct and improve tide stations

C. Results/Impact Indicators

OMB Intermediate Result
IR-1: The restoration and development of base geodetic and environmental monitoring infrastructure in Honduras, Nicaragua, Guatemala, and El Salvador

DOC Measures of Progress (Ref: DOC Implementation Plan)	Intermediate Result	Accomplished Previous Reporting Period	Accomplished This Reporting Period
Reconstruct and Improve Geodetic Networks	IR-1.1 Number of continuously operating reference stations (CORS) that are installed IR-1.2 "Train the trainer" sessions held for US private contractors and US and Central America academic institutions IR-1.3 The number of first, Second, third order benchmarks That are installed IR-1.4 Training sessions held for In-country government agencies Responsible for surveys		

Reconstruct and Improve Hydrometeorological Data Collection Platform/Telecommunications Networks	IR-1.5 The number of data collection platforms (DCPs) that are installed	N/A	N/A
	IR-1.6 The percentage of telecommunications network installed	N/A	N/A
	IR-1.7 The number of connections to other sensors, such as tide gauges, that are established	N/A	N/A
Reconstruct and Improve Tide Gauge Stations	IR-1.8 The number of tide stations installed	Two - Puerto Quetzal and Santo Tomas de Castilla	.
	IR-1.9 Training sessions held for in-country government agencies responsible for operating water level stations, assuring data quality, and providing sea level data.	- Training during installation at Puerto Quetzal - Training during installation at Santo Tomas de Castilla - First Regional Technical Training Workshop	- Second Regional Technical Training Workshop.

Guatemalan Mission Intermediate Results Framework:

	NOAA Activity		
Mission Intermediate Result	Geodetic Networks	Hydromet Networks	Tide Stations
IR 1.1 Agriculture			
IR 1.2 Land Title			
IR 1.3 Infrastructure			
IR 3.1 Environmental Management			
IR 3.2 Preparedness			

Note: Matrix cells marked " " indicate direct support for the mission IR. Matrix cells marked " " indicate a supporting relationship. Blank cells indicate no relationship. In no case does a NOAA activity conflict or interfere with a mission IR.

Narrative Report

- Installation of GOES Satellite Receive Station
- Regional Technical Workshop
- RONMAC Steering Committee
- Preparation of RONMAC paper
- Paper presented on Sea Level Monitoring Systems in Mexico
- Preliminary Tidal Datums and Harmonic Analyses Computed by CO-OPS
- Procurement Initiated to Develop Tsunami Upgrade for Water Level Stations
- GPS Observations Performed at Two Water Level Stations
- Troubleshooting

Installation of GOES Satellite Receive Station

In October 2001, the GOES Satellite Receive Station was installed at the LABCODAT (Heredia, Costa Rica). The receive site and archiving are now functional. The data stream is expected to be accessible on the Internet during the first quarter of 2002.

Regional Technical Workshop

RONMAC Staff and a representative of Vitel (the equipment manufacturer) conducted a technical workshop for national agency technicians in Heredia, Costa Rica. Representatives from all RONMAC national counterpart agencies took part. (see attached documentation)

RONMAC Steering Committee

The Second RONMAC Steering Committee was conducted. Status report and future plans were discussed during the meeting. (see attached report)

Preparation of RONMAC paper

A paper about the RONMAC Project was prepared and sent to ITZU meeting that took place in Cartagena, Colombia.

Paper presented on Sea Level Monitoring Systems in Mexico

Paper and speech preparation were prepared for an invitation to a workshop on tide gauges and sea level monitoring systems given in Puerto Vallarta, México.

Preliminary Tidal Datums and Harmonic Analyses Computed by CO-OPS

A 365 day harmonic analysis (based on seven months of data) was determined for the water level station at Puerto Quetzal; a 29 day analysis is also available for the water level station at Puerto Santo Tomas de Castilla. Preliminary tidal datums based on two months of data are available for Puerto Quetzal, but not yet for Puerto Santo Tomas de Castilla. All usable data through November 2001 has been processed.

Procurement Initiated to Develop Tsunami Upgrade for Water Level Stations

CO-OPS initiated a procurement with Vitel, Inc. for the development of a software upgrade to the data collection platforms that will enable the acquisition of high quality Tsunami measurements from the water level stations. This will directly support the Tsunami Warning System on the tectonically active Pacific coast.

GPS Observations Performed at Two Water Level Stations

During the time period 12/3-11/01, a crew of National Geodetic Survey (NGS) and Center for Operational Oceanographic Products and Services (CO-OPS) personnel performed GPS surveys on tidal bench marks

at the Puerto Santo Tomas de Castilla and Puerto Quetzal water level stations. IGN personnel assisted with both the GPS work and logistics, which helped greatly in making the trip successful. The work was performed in conjunction with the installation of Continuously Operating Reference Stations (CORS) at Santa Elena and Huehuetenango by NGS and IGN personnel. Conventional geodetic levels were also run between the acoustic sensors and local tidal bench marks.

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.

Constraints and Problems

Implementation and Effectiveness of Environmental/Disaster Mitigation Measures

E. Success stories/Vignettes

The early December trip to make GPS observations at the two water level stations was an excellent demonstration of coordination and cooperation between NOAA personnel and IGN personnel. All team members worked well together and there was good exchange of expertise. The project goals were attained with minimal complications.