

**Tuesday, October 3, 2000**

Depart San Jose, Costa Rica, arrive in Tegucigalpa, Honduras.



**Wednesday, October 04, 2000**

Met with Daisy A. de Fonseca, Secretaria General of the Instituto Panamericano de Geografía e Historia Sección Nacional de Honduras (IGN). We presented the project explanation and received greetings from Dr. Noé Pineda Portillo, Director General of IGN via Señora de Fonseca. We were joined by Arturo Pineda from the Calculus Department, Tomas Rojas, Chief of Operations and Virgilio Alvarenga, Chief of Geodetic Department. We discussed the operation of the RONMAC project and the monitoring equipment.



There was a discussion regarding the participation of the IGN technicians. It was decided that two technicians would be assigned to the RONMAC project. The IGN said that they did not have any provision within their present budget for paying "per diem" for their technicians to travel to Puerto Cortes on the east coast. They asked if we could pay it. We explained that we were not able to pay "per diem", but that we could provide the hotel room and meals as long as they were with us. That resolved the issue. This may represent an issue in the future for maintenance visits to the monitoring site in Puerto Cortes. They need to be encouraged to plan for travel costs within their future budgets.

We agreed that Puerto Cortes was the proper site for the first monitoring station, since it is the principal port in Honduras and a historic "tidal" site. We also discussed locating an additional site in San Lorenzo located in the south part of Honduras on the Golfo de Fonseca. This will be reconned during the installation period for Pto. Cortes in December 2000. Installation will be accomplished in 2001. We also discussed the possibility of IGN taking over the responsibility for the operation of the monitoring site located in Cayos Cochinos Pequeno. This is a system that was installed initially by the Smithsonian Institute with funding from the Cayos Cochinos Marine Sanctuary Foundation which was created by the Government of Honduras. This is a site that has already been developed and has been operational similar to the RONMAC sites. The circumstances have changed since the station was installed in 1990. The Foundation is willing to fund the equipment but has no one who is capable of being responsible for the operation. The IGN indicated that they were interested. I will arrange a meeting between the IGN and the Foundation to explore the possibilities.

We ended by planning the reconnaissance of Puerto Cortes. Since the trip is approximately 4 hours one-way, an overnight trip is planned for Thursday and Friday. The IGN has only small vehicles and an assigned driver must drive them. In addition to the two technicians that would constitute five people in a vehicle intended for only four people. The technicians are not allowed to drive the IGN vehicles. We discussed this at some length with Señora de Fonseca and came to the conclusion that we would have to rent a car. The rental car would have to accommodate four people. The driver would be eliminated by this plan.

We contacted the OEA office. The Director had just returned from overseas travel and was not available except by telephone. Jim talked with the director, Guillermo Molina López and his assistant explaining the project. He also asked for their advise regarding renting a car for the trip to Puerto Cortes.

**Thursday, October 5, 2000**

Traveled to Puerto Cortes on the northeast coast of Honduras. Travel time from Tegucigalpa was 4hr 15min. (310km). Traveling with us from IGN Geodetic Department were Arturo Pineda and Edmundo Paguaga.

We met with Puerto Cortes staff; Rogelio Delgado from the Navigation Unit of Services, Carlos Portillo, the chief of the Hydrology Department, Neftali Dias, from Computer Services and Oscar Delgado who is the Planification Division Chief, the meeting was held at the office of Oscar Delgado. After explaining the operation of the system and answering questions, we explained what was needed in terms of location and structure. The staff indicated that they needed salinity readings to support their vessel loading requirements.



We then visited the existing tide gauge site;





Standard Tide Gage

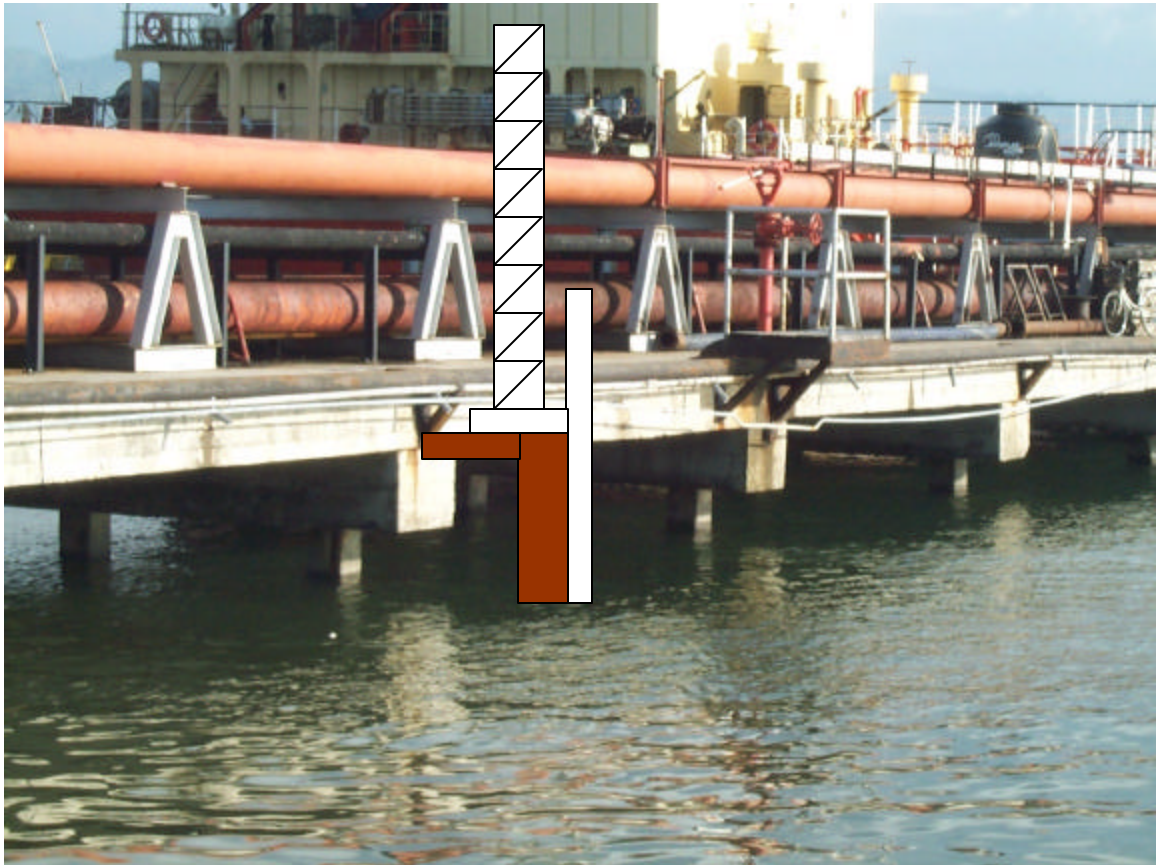


Staff stop (no brackets)

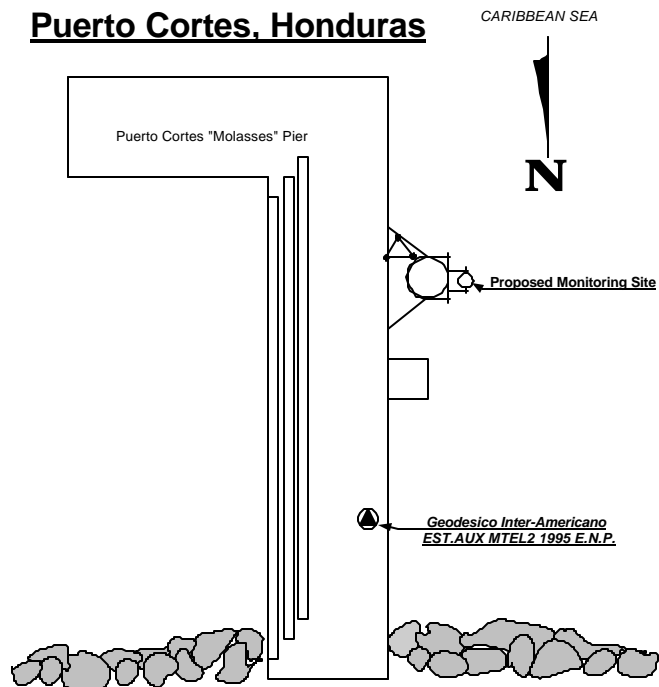
After looking at the tide house we recovered Bench Marks 2A & 3A. The bench mark shown in the photo above is not one of the historic BM's it was installed as part of a hydrographic survey. This site is to be removed because of port expansion. We then visited three possible new sites. Only one site was suitable, this site is located on the



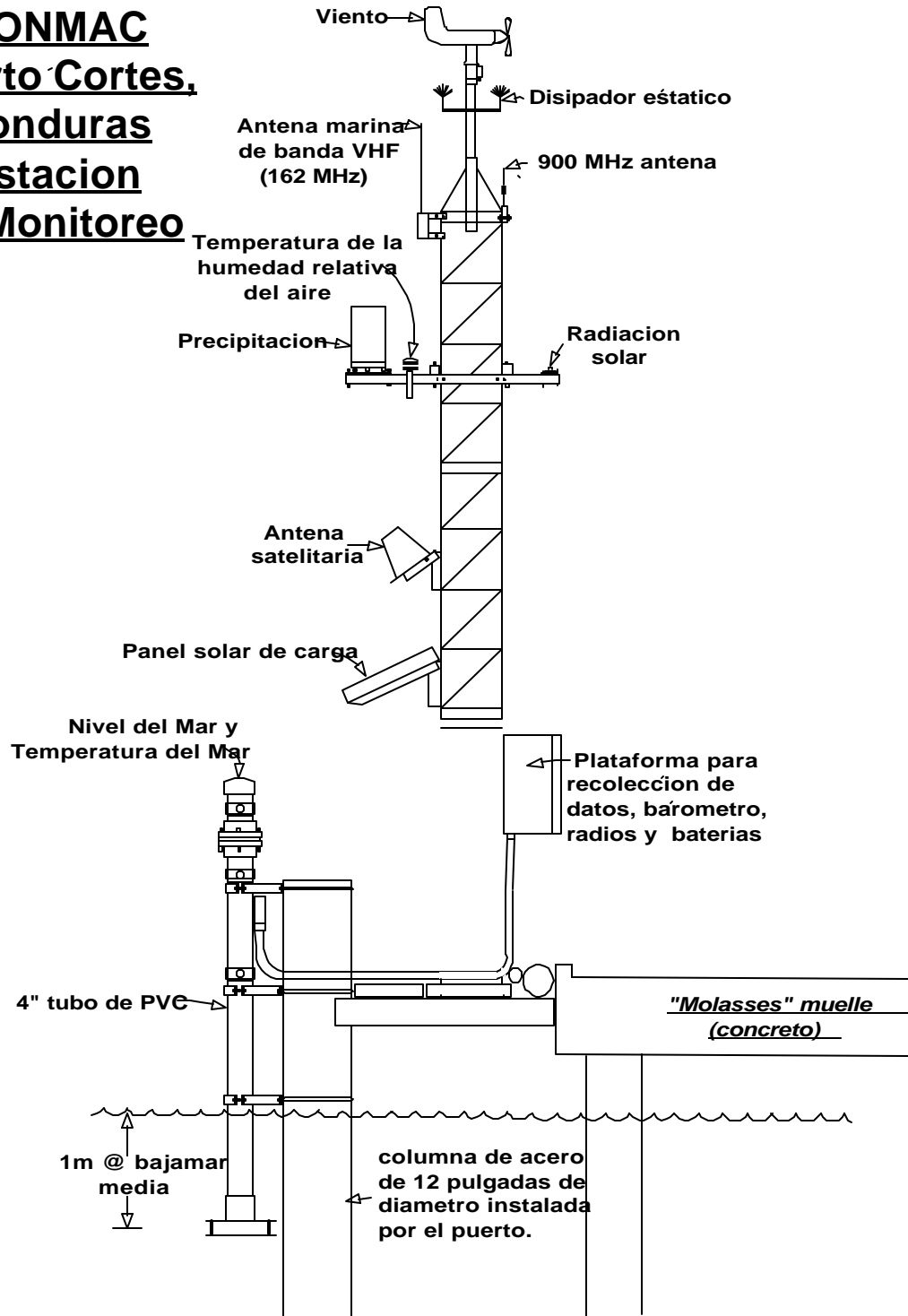
“Molasses Pier”. The port will have to make some additions to the pier to make it suitable.



Proposed installation on the “Molasses Pier”



**RONMAC**  
**Puerto Cortes,**  
**Honduras**  
**Estacion**  
**de Monitoreo**



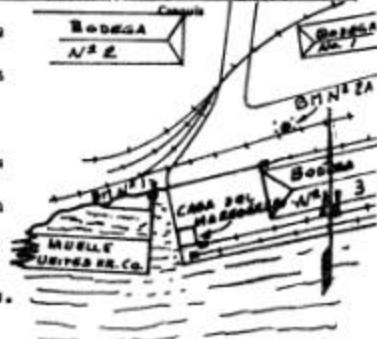
# Puerto Cortes Bench Mark Descriptions

REPUBLICA DE HONDURAS  
**INSTITUTO GEOGRAFICO NACIONAL**  
 SECRETARIA DE COMUNICACIONES Y OBRAS PUBLICAS

Departamento CORTEZ, Honduras	Características de la Marca Disco de 9 Cm Incrustada en plataformas de conc.	Elevación <b>00.7231 MTS.</b>
Distrito y Municipio Puerto Cortes	Organización (Fundido en la Marca) IAGS	Orden Tercera (Preliminar) <del>XXXX</del>
Línea Red Mareografico, Cortes	Estampada A A 1970	Datum Puerto Cortes - 1978

**Descripción Detallada del Punto**

En Puerto Cortes la marca se encuentra en la zona portuaria de la Empresa Nacional Portuaria, no muy retirada desde la esquina Noroeste de la Bodega No. 3. Esta incrustada a ras en la plataforma de concreto y cerca de un hidrante paga-fuego a 18.1 metros hacia el Norte desde el lado Norte de la bodega. Desde el centro del hidrante la marca esta con acimut N 203 a 0.55 metros; desde la esquina Noroeste de la Bodega No. 3, con acimut N 52 a 34.9 Mts; y desde el poste de hierro lo mas al Sureste de los cuatro postes que rodean el hidrante paga-fuego, con acimut N 267 a 1.2 metros.



**Nota:** Esta marca si se considera estable, con elevación tentativa sobre el nivel promedio de mar de 0.888 Mts.

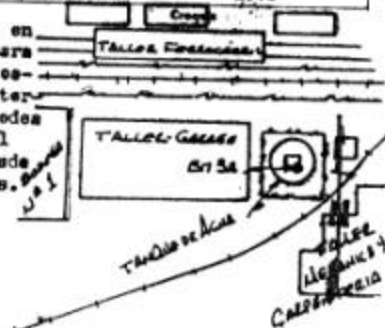
Describe por: R. W. Saubers, IAGS      Aprobado por: J. J. Guevara, IGN      Fecha: 20 de noviembre 1978  
 MONOGRAFIA DE LA COTA FIJA

REPUBLICA DE HONDURAS  
**INSTITUTO GEOGRAFICO NACIONAL**  
 SECRETARIA DE COMUNICACIONES Y OBRAS PUBLICAS

Departamento CORTEZ, Honduras	Características de la Marca Disco de 9 Cm Incrustado en base de concreto	Elevación <b>01.3413 MTS.</b>
Distrito y Municipio Puerto Cortes	Organización (Fundido en la Marca) IAGS	Orden Tercera (Preliminar) <del>XXXX</del>
Línea Red Mareografico, Cortes	Estampada 3 A 1970	Datum Puerto Cortes - 1978

**Descripción Detallada del Punto**

En Puerto Cortes la marca se encuentra en la zona portuaria en la base centríca del torre alto para abastamiento de agua para toda la zona. Esta incrustada en un base de concreto que sostiene el tubo vertical, es visible, y sobresale 30 Cm. del terreno alrededor. Desde la esquina Noreste de la cerca que rodea el tanque la marca esta con acimut N 218 a 8.8 Mts; desde el soporte Sureste del torre, con acimut N 228 a 6.6 Mts; y desde el centro del porton entrada hacia la torre, N 224 a 6.6 Mts.



Condición de la marca es buena.

Describe por: R. W. Saubers, IAGS      Aprobado por: J. J. Guevara, IGN      Fecha: 20 Noviembre 1978  
 MONOGRAFIA DE LA COTA FIJA

