

The Richard H. Hagemeyer Pacific Tsunami Warning Center and its Role in the Caribbean

Charles S. McCreery

Director, Richard H. Hagemeyer Pacific Tsunami Warning Center

The United States National Weather Service (NWS) operates two warning centers to help protect U.S. Pacific coasts from the adverse effects of the tsunami hazard -- the Richard H. Hagemeyer Pacific Tsunami Warning Center (PTWC) in Ewa Beach, Hawaii, and the West Coast / Alaska Tsunami Warning Center (WC/ATWC) in Palmer, Alaska. There is no warning center for U.S. Atlantic or Caribbean coasts primarily because the hazard there is much smaller and no recent impacts have occurred. Due to ever-increasing coastal vulnerability, however, some form of mitigation and warning program for the Caribbean and Atlantic tsunami threat is needed. The NWS has recently been taking steps to address this issue. At a January 2003 meeting hosted by the University of Puerto Rico at Mayaguez, NWS personnel joined with representatives of other federal agencies and with regional scientists and emergency management representatives to formulate a tsunami warning plan for Puerto Rico and the Virgin Islands. As a result of those discussions, the following preliminary protocol was devised to provide limited tsunami warning capabilities for Puerto Rico and the Virgin Islands. The Puerto Rico Seismic Network (PRSN) will produce a rapid evaluation of any large nearby earthquake and will subsequently advise the Puerto Rico Emergency Management Agency (PREMA) if there is a potential tsunami threat. If PREMA concurs it will, in turn, sound sirens and advise the San Juan Weather Forecast Office (WFO) to issue a public message and activate the Emergency Alert System (EAS). Since PRSN is only manned during normal business hours, however, if the earthquake occurs at night or on the weekend it may not be able to respond in a timely way. To support the protocol, PTWC, backed up by WC/ATWC, will issue a Tsunami Information Bulletin for any large earthquake in the Caribbean or Atlantic, advising if there is a tsunami threat. The bulletin will be received by the San Juan WFO that will advise PREMA and take appropriate action. Although this protocol will provide some tsunami warning protection, there are many remaining issues to address including 24x7 capabilities, false warnings, no sea level data or evaluation, cancellations, evacuation plans and public education. In addition, the protocol does not provide guidance to other coastal regions in the Caribbean that may be at risk. PTWC, based on its more than 50 years experience with tsunami warning in the Pacific, is willing to help with this effort in whatever way it can.