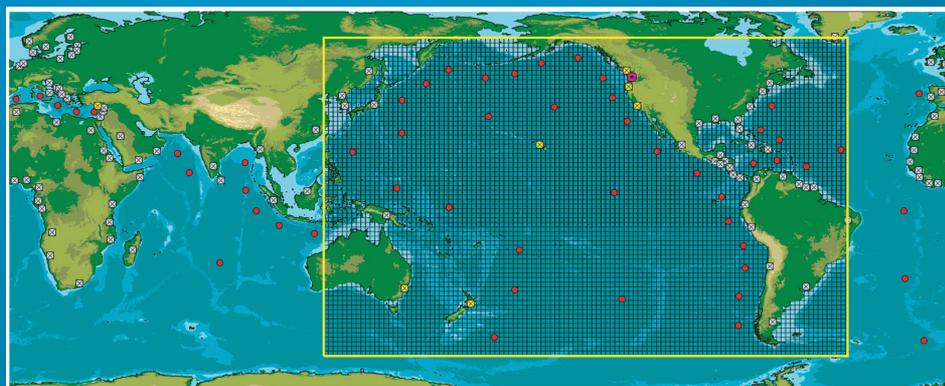


Frank I. González

“*Tsunamis*: The Science and Engineering of an Operational Forecasting System”

Since 1985, Frank González has led the Tsunami Research Program at the National Oceanic and Atmospheric Administration's (NOAA's) Pacific Marine Environmental Laboratory (PMEL) in Seattle, Washington. In 1986, this program succeeded in establishing the first deep-ocean tsunami measurement network to acquire research data, an effort that has led to the current real-time reporting network of tsunameters that is now an operational component of the U.S. Pacific Tsunami Warning System. He is a recipient of NOAA's Office of Oceanic and Atmospheric Research Outstanding Scientific Paper Award for his 1999 *Scientific American* article, "Tsunami!" Previously, González led the PMEL "Hazardous Waves Project," conducting a series of field experiments at the Columbia River Bar (one of the most dangerous navigational regions in the world) to develop a method for National Weather Service forecasts of hazardous wave conditions at river inlets along the Washington-Oregon coastline. For this work, in 1984 he received NOAA's highest honor, the NOAA Administrator's Award for outstanding scientific research.

A fast, accurate, operational tsunami forecast system is an essential component of any comprehensive national tsunami preparedness and hazard-reduction program. The National Oceanic and Atmospheric Administration (NOAA) is developing a U.S. Tsunami



Forecast System that is based on a well-tested strategy—the integration of real-time measurement and modeling technologies—to provide community-specific predictions of tsunami inundation. This talk will describe the scientific and engineering challenges of developing an operational tsunami forecast system; present the results of case studies to test the current prototype forecast system; and discuss NOAA plans for implementation, expansion, and improvement of the operational system. Context for this discussion will be provided early on by a description of the comprehensive U.S. tsunami hazard-mitigation program and a brief overview of the 26 December 2004

Wednesday, April 6, 2005

3:00 p.m.

Bldg. 402 APS Auditorium • Argonne National Laboratory

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