Joint Institute for Marine and Atmospheric Research

The Joint Institute for Marine and Atmospheric Research (JIMAR) is a NOAA Cooperative Institute at the University of Hawaii (UH) at Manoa. JIMAR has facilitated collaborative research among NOAA Research, NOAA Fisheries, and National Weather Service scientists, university scientists, and university students since its inception in 1977.

JIMAR research includes six themes: **(1) Tsunamis and Other Long-Period Ocean Waves** - Research the detection of tsunami's via coastal tide gages, analysis of historic and prehistoric events, and modeling; **(2) Equatorial Oceanography** - Observe and dynamically analyze the equatorial ocean which includes performing fundamental studies of the dynamics of the El Nino/Southern Oscillation (ENSO); **(3) Climate** - Observe, analyze (e.g., use of the UH Sea Level Center (UHSLC)), model, and perform fundamental dynamical studies and experimental predictions on the climate of the Pacific Ocean and Indian Ocean/Australasia ; **(4) Fisheries Oceanography** - Research all aspects of the western Pacific pelagic fishery (i.e., an unique program funding the promotion of international collaboration on the study of migratory species, ecosystems, marine mammals, protected species, stock assessment, regulatory impacts, and fishing strategies); **(5) Tropical Meteorology** - Collaborate closely with the National Weather Service's Honolulu Weather Forecast Office, which is located on the UH Manoa campus, and NOAA's Hurricane Research Division to perform research on all aspects of tropical weather and climate; and (6) Coastal Research - Perform research on all aspects of the coastal zone which is experiencing an increase in national interest due to the development of a Marine Sanctuary in the Northwest Hawaiian Islands.

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Annually, JIMAR scientists publish 130 scientific publications, of which approximately 60% appear in peer-reviewed publications. JIMAR research includes sea level research which is based largely on direct in situ measurements at tide gauge stations and is performed at the UHSLC. The UHSLC works with various international agencies to ensure that tide gauge data are collected over a globally distributed network and that all data are readily available to the research and operational oceanography communities, and that the data are quality controlled in a user-friendly format. The UHSLC also seeks to incorporate geodetic measurements of land motion at tide gauge sites in support of absolute sea level. The UHSLC operates 38 tide gauge stations in the global sea level network. Fisheries research has continued to expand in concert with the development of the new Pacific Islands Region. The Pelagic Fisheries Research Program (PFRP) presented a 10-year report to Congress describing a decade of accomplishments in fisheries science. Development of the graduate program in Tropical Fisheries and Aquaculture (a joint venture of NMFS, PFRP, and the School of Ocean and Earth Science and Technology) has continued.

JIMAR's research activities assist NOAA in three of its Mission Goals: 1) Protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management; 2) Understand climate variability and change to enhance society's ability to plan and respond; and 3) Serve society's needs for weather and water information.