

Donald Resio

Dr. Resio was appointed to the position of Senior Technologist (ST) in May 1994. This position represents the highest technical rank in the DoD civil service, with less than forty such positions authorized within the Army. Dr. Resio has been involved in performing and directing engineering and oceanographic research for over 30 years. He serves as the technical leader for the Coastal Military Engineering program and is the Technical Manager (TM) for a recent successfully completed Advanced Technology Concept Demonstration (ACTD) for military logistics. He also conducts/directs research that spans a wide range of environmental and engineering areas within the Corps Civil Works Program. In this capacity he directs the MORPHOS project aimed at improving the predictive state of the art for winds, waves, currents, surges, and coastal evolution due to storms. Most recently, Dr. Resio has been selected as the co-leader (with Professor Emeritus Robert Dean of the University of Florida) for the IPET Task 5a (analysis of wave and surge effects, overtopping and related forces on levees during Katrina) and as the leader of the Risk Analysis team for the South Louisiana Hurricane Protection Project, including consideration of the effects of climatic variability on hurricane characteristics in the Gulf of Mexico. Dr. Resio led the team that developed the new technical approach for hurricane risk assessment along US coastlines and is now leading an effort sponsored by the Nuclear Regulatory Agency to extend this approach to the estimation of hazards for Nuclear Power Plants in coastal areas. Recently, under the sponsorship of the Department of Homeland Security, Dr. Resio led a team of researchers in the development of innovative methods for the rapid repair of levee breaches. This work appears to offer new options for improved flood mitigation in many areas of the US.

Dr. Resio's research areas include the development of innovative marine and coastal structures, meteorology and climatology, specialized environmental statistics (with a focus on extremal and multivariate methods), theoretical studies of surface gravity waves in deep and shallow water, development of numerical models for surface gravity waves in deep and shallow water, and coastal processes. He has published many articles in leading international journals including a recently published invited article in *Physics Today* entitled "Modeling the Physics of Hurricane Storm Surges." Professor Robert Dean and Dr. Resio are currently co-editors of an upcoming 2-volume special issue of the journal *Ocean Engineering*. Dr. Resio has been the invited keynote speaker and many National and International conferences on ocean and atmospheric physics and statistics and is one of the US representatives on the United Nations' Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) in the area of climate effects and the ocean.