MARI & CCPO
Old Dominion University
Fall 2014 Seminar Series

OLD DOMINION UNIVERSITY
Center for Coastal Physical Oceanography
IDEA FUSION

"HURRICANE INUNDATION PROBABILITY AND RISK ASSESSMENT IN A CHANGING CLIMATE"

JENNIFER IRISH
Virginia Tech

Monday, October 20, 2014
3:30 PM
Conference Center, Innovation Research Park Building II
4211 Monarch Way, Norfolk, VA 23508

Abstract
Reliable extreme-value hurricane flooding estimates are essential for effective risk assessment, management, and engineering in the coastal environment. Yet, the range of, and uncertainty in, future climate and sea-level conditions present a challenge for assessing future hurricane flooding probability. Here, methods will be presented for incorporating sea-level rise and time-varying hurricane conditions into extreme-value flood statistics. A joint probability approach will be used with surge response functions to define time-varying continuous probability density functions for hurricane flood elevation. Examples for risk assessment along the Texas coast will be presented.

Biography
Dr. Jennifer L. Irish is an associate professor of coastal engineering at Virginia Tech with 20 years of experience and more than 40 peer-reviewed journal papers. Irish is an expert in storm dynamics at the coast, vegetative effects, and coastal hazard risk assessment. Notable awards for Irish's research accomplishments include ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering's Outstanding Paper in 2013 (one of five), Texas A&M University's Civil Engineering Excellence in Research Award in 2010, and Department of the Army's Superior Civilian Service Award in 2008. In 2014, she was invited to join the Coastal Engineering Research Council of the American Society of Civil Engineers (ASCE), and she served as Secretary of ASCE's Coasts, Oceans, Ports, and Rivers Institute Board of Governors from 2005-2012.

Reception before seminar at 3:00 PM