



NExUS Ongoing Projects and Activities Thu Nov 23 09:52:58 EST 2017

Name	Accurate Storm Surge Modeling: The Influence of Model Dimensionality, Freshwater, Tides, Stratification and Model Grid Area
Description	Detailed simulations, comparisons with observations, and model sensitivity experiments are presented for the August 2011 tropical cyclone Irene and a March 2010 nor'easter that affected the New York City (NYC) metropolitan area. To "dissect" the storm tides and examine the role of various physical processes in controlling total water elevation, a series of model experiments was performed where one process was omitted for each experiment, and results were studied for eight different tide stations.
Category	- Research
Sector	- Public Health and Safety - Infrastructure - Natural Ecosystems
Focus Area	- Coasts and Climate Resilience (including sea-level rise) - Changes in Extremes of Weather and Climate
Region	- Regional Or State -- Mid-Atlantic
Status	- Ongoing - Completed
Timelines	Date of completion, April 2012
Lead Agencies	NOAA Regional Integrated Sciences and Assessments
Contacts	Alan Blumberg, Stevens Institute of Technology, ablumber@stevens.edu