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## SSIO 2015 Internship Opportunity Position

### Internship Information

Project title: **Improving Coastal Resilience through Effective Communication of Water Level Products**

NOAA mission goal: **Resilient Coastal Communities and Economies**

Hypothesis or objectives: **This project will develop enhanced water level information for the Mid-Atlantic Region to support community understanding of the impacts of sea level rise (SLR) on coastal inundation both through increased storm flooding and changes in tidal flooding (i.e., nuisance flooding). This funding will support the expansion of NOAA capabilities to harvest water level information and improve the visualization and access to that information through a variety of products and tools.**

**One product includes the water level dashboard intended to support coastal decision making by providing the number and duration of exceedances over various societally relevant threshold levels. It will track these in context to observed and forecasted SLR changes based on National Climate Assessment scenarios. It will display an array of water level information for various time frames to meet customer needs. An on-line water level dashboard will be developed at a pilot location (likely Norfolk, VA) in the Mid-Atlantic region.**

**This project will also explore platforms and methods to support and enhance NOAA's inundation landmarks risk communication campaign. The landmarks projects will be transitioning from NYC battery to the Mid-Atlantic (likely Norfolk, VA). This effort will employ risk communication best practices and develop communication products that can be used to explain impacts from various water level events (nuisance flooding increases, extreme water levels, low water levels, etc).**

**Academic Status may be Undergraduate or Graduate**

Academic status: **Undergraduate**

Area(s) of discipline: **Environmental Science Studies, Geography, Geology, Meteorology, Oceanography**

Internship location: **Silver Spring, MD**

Duties and responsibilities: **The fellow will be working with NOS scientists to explore tools and methods for communicating water level information to**

**community stakeholders in a more holistic and meaningful way. Specific intern responsibilities will include:**

- Explore possible platforms for communicating water level information to communities, such as ESRI Story Maps**
- Work with NOS project leads to support development and integration of these platforms**
- Support development of training material so communities can develop their own programs to build coastal resilience in their area**
- Work with NOS social scientists to incorporate risk**

FROM WITHIN THE SOCIAL SCIENCES TO INCORPORATE RISK  
**communication best practices into products and platforms**  
 - Compile efforts into a final report and develop a presentation to fulfill the Hollings requirement at the end of the summer.

- Special skills/training required:
- Experience with GIS
  - Background in physical or marine sciences preferred
  - Ability to think creatively about complex issues
  - Ability to work independently after being provided guidance
  - Good organization skills and ability to multi-task
  - Social science experience not required, but desired
  - Computer programming experience not required, but desired
- Expected outcomes:
- Enhanced dissemination and visualization of water level products will lead to improved community resilience from coastal inundation events. The fellow will benefit from this project in the following ways:
- Support NOS mission to provide world-class science and services in support of resilient and healthy coastal communities, economies, and ecosystems.
  - Build GIS and computer programming skills
  - Gain exposure to risk communication principles and skills
  - Gain exposure to the science of oceanography, meteorology, and climatology

Guidance and supervision: **Name: Danielle Nagele**  
**Office: NOS/CO-OPS**  
**Phone: 301-713-2981 x122**  
**E-mail: danielle.nagele@noaa.gov**

The Fellow will sit at the NOS Center for Operational Oceanographic Products and Services (CO-OPS). The student will work side-by-side with Danielle Nagele, NOS CO-OPS' Risk Communication Specialist and Christopher Paternostro, NOS CO-OPS' Oceanographer to support development of platforms for communicating water level information, development of training and tools for use by community stakeholders, and incorporation risk communication best practices into these efforts.

NOAA Scientists will provide supervision and assistance in the following ways:

- 1) Provide a background on current water level products and services
- 2) Background and guidance on product users and their needs
- 3) Assistance on any necessary GIS and computer programming
- 4) Guidance on presentation and report development.

Posted or modified date/time: **Tuesday, October 14, 2014 - 7:34:00 AM**

### Internship Travel Information

Purpose (student's role): ---

Mode of transportation: ---

Date(s): ---

Destination: ---

Estimated cost: ---

Source of funding: ---

## Mentors Contact Information

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