

**REQUEST FOR STATEMENTS OF INTEREST
NUMBER W912HZ-19-SOI-0012
PROJECT TO BE INITIATED IN 2019**

Project Title: USCRP Research Topic 10: Applied Storm & Recovery Studies as part of the During Nearshore Event Experiment (DUNEX)

Responses to this Request for Statements of Interest will be used to identify potential investigators for studies to be sponsored by the U.S. Army of Engineer (USACE) Engineer Research and Development Center (ERDC) Coastal and Hydraulics Laboratory (CHL). The intent is to provide researchers the opportunity to design and conduct field studies on nearshore processes before, during and after a storm event, including a During Nearshore event eXperiment (DUNeX) pilot study and full experiment. DUNeX is one of the collaborative efforts of the US Coastal Research Program (USCRP) to have a multi-agency, academic, and non-governmental organization study nearshore coastal processes during one or more coastal storms. DUNeX will be conducted in the vicinity of the USACE Field Research Facility (FRF) along the Outer Banks of North Carolina, beginning with a pilot study, followed by a larger-scale focused storm measurement study. Estimated award amounts for individual proposals of \$50,000 to \$500,000 may be accepted. Multiple awards may be funded. Possibly no awards will be made if the submitted proposals do not meet the objectives outlined in this RSOI.

Background:

The U.S. Coastal Research Program (USCRP) is a partnership of the coastal research community to coordinate Federal activities, strengthen academic programs, and build a strong workforce. Three primary research needs identified by the USCRP's nearshore coastal community are to improve understanding of: 1) long-term coastal evolution due to natural and anthropogenic processes; 2) extreme events, including flooding, erosion, and the subsequent recovery; and 3) the physical, biological and chemical processes impacting human and ecosystem health. As identified by the USCRPs plan, the USCRP addresses societal needs along the coast through a coordinated effort backed by researchers from Federal agencies, academia, industry, and non-governmental organizations. Awards will be made with the intent of assisting academic institutions in funding coastal and nearshore processes graduate students to address critical research needs within the coastal community, advancing the state of knowledge, and building the future U.S. workforce.

Public Benefit:

These results will benefit the public through improved prediction of storm processes and impacts, better estimates and validation of numerical model accuracy for storm processes, identification and reduction of sources of error for storm processes, improved strategies for short- and long-term coastal resilience; and development of more effective communication methods for coastal communities impacted by storms.

Brief Description of Anticipated Work:

Objective 1: Researchers will develop a full experimental plan for participating in the DUNeX pilot study and full experiment.

Objective 2: Researchers will participate in the DUNeX pilot study by collecting and processing nearshore processes data and porting the data to the DUNeX data portal to be made available to all DUNEX research participants. The researcher will take the lead role in preparing a summary report of the finding from the pilot study, including lessons learned regarding logistics, instrument deployment in non-ideal conditions, as well as improved understanding of nearshore processes.

Objective 3: Based on findings in Objective 2, the researcher will adjust their field data collection plan as necessary and participate in the full DUNeX experiment by collecting and processing nearshore processes data and porting the data to the DUNEX data portal to be made available to all DUNeX research participants. The researcher will take the lead role in preparing a summary report of the finding from DUNeX, including additional lessons learned regarding logistics, instrument deployment in non-ideal conditions, as well as an improved understanding of nearshore processes.

Base Period Tasks:

Objectives 1-3 will be addressed in the base period work effort and summarized in the summary report for this period.

Government Participation:

The university researcher(s) will work in close coordination with the USACE and USCRP staff who will provide technical assistance prior to the pilot study and DUNEX and logistical assistance during the events. The USACE and USCRP will also facilitate and participate in coordination efforts and meetings either in person or by webinar prior to the events and in person during the events. The USACE FRF staff will assist researchers to access topographic and bathymetric data, as well as wave, water level, and current information. The USACE and USCRP team will ultimately incorporate the research and documentation by the researcher(s) into a technical report.

Materials Requested for Statement of Interest/Qualifications:

Please provide the following via e-mail attachment to: -----Robyn.D.Wells@usace.army.mil
(Maximum length: 2 pages, single-spaced 12 pt. font).

1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
 - a. Biographical Sketch,
 - b. Relevant past projects and clients with brief descriptions of these projects,
 - c. Staff, faculty or students available to work on this project and their areas of expertise,
 - d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

Note: A proposed budget is NOT requested at this time.

Review of Statements Received: Based on a review of the Statements of Interest (SOI) received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the specific experience and capabilities of the investigator(s) in areas related to the study requirements. Additionally, the evaluation method and selection criteria for research and development awards must be: (1) the technical merits of the proposed research and development; and (2) potential relationship of the proposed research and development to the Department of Defense missions.

Please send responses or direct questions to:

Robyn D. Wells

U.S. Army Engineer Research and Development Center (ERDC)

ERDC Contracting Office (ECO)

3909 Halls Ferry Road

Vicksburg, MS 39180

Robyn.D.Wells@usace.army.mil

Timeline for Review of Statements of Interest: Review of Statements of Interest will begin after the SOI has been posted to all units on the CESU website for 10 working days.