

DUNEX Webinar Q&A

Can you characterize likelihood for storms? E.g. August vs. later in the Fall?

- Each year, the northern Outer Banks are generally impacted by category 1 or 2 hurricanes in August/September
 - o Often 1-2 per season
 - o Offshore wave heights over 4m tend to impact dune toe
- October/November are usually more characterized by extra-tropical systems
- Please see <https://frfdataportal.erdcdren.mil/> or <https://chlthredds.erdcdren.mil/thredds/catalog/frf/catalog.html> for historical FRF wave data or NOAA's historical hurricane track viewer: <https://coast.noaa.gov/hurricanes/>

When would Requests for Statements of Interest (RSOI) be released for the remaining USCRP research topics?

- For information on the RSOIs please check the USCRP website. While DUNEX is supported by one of the RSOIs through USCRP, principle investigators are encouraged to pursue any funding source that may be applicable. You do not have to receive USCRP funding to participate in DUNEX.

Will there be opportunities to discuss specific research sties between PIs (asked multiple times)

- USCRP will develop a forum to help facilitate discussion amongst PIs. Please check the USCRP website for forthcoming details. In addition, the Logistics Team (made up of a representative from each science team, as well as operations support) will be an official coordinating body of the DUNEX Experiment, and would be a great place to discuss science plans. Finally, a meeting will be planned for Ocean Sciences 2020 in San Diego, Feb 16-21 prior to the full experiment.

If funding is not secured yet, is it still valuable to fill out a logistics survey?

- Yes, one of the first questions on the Logistics survey relates to funding. It is helpful to the logistics coordinators at the FRF in planning to have an idea of interest, even if funding is not secured. We understand funding decisions may not be known yet, but encourage participants to be forthcoming with their plans, and to provide updates when funding decisions become known. Logistics surveys for the full experiment may be updated any time prior to Dec 31 2018.

Is there available data from Hurricane Florence in 2018?

- The northern Outer Banks was not strongly impacted by Hurricane Florence, but any of the FRF real-time data products are available on the FRF website. In addition, the USGS sponsored high-overlap aerial imagery along the study site (contact Chris Sherwood, csherwood@usgs.gov).

Is there a requirement to be a US Citizen?

- While US Citizenship is not required to be on-site at the FRF, additional information will need to be provided (e.g. copy of passport, etc) and access will be restricted (as non U.S. citizens must be accompanied by a federal government employee at all times). Participation in field-work at the FRF will be reviewed on a case-by-case basis, with an effort to reasonably accommodate

different circumstances. Please contact Alex Renaud, Alexander.D.Renaud@usace.army.mil, for more information.

Who can I contact in terms of getting funding granting from USCRP to participate in DUNEX? Who would the contact be?

- Researcher funding to participate in DUNEX is up to the individual researcher to supply for their experiment and USCRP is one of the many possible funding sources. USCRP is funding nearshore processes research in 12 topic areas, one of which is DUNEX. The USCRP has posted requests for Statements of Interest (RSOI) in these 12 nearshore processes topic areas through the Cooperative Ecosystem Studies Unit (CESU) program (see <http://www.cesu.psu.edu> or <http://www.cesu.psu.edu/fundopps/fundopps.htm>). Please see this web site for the DUNEX topic area and the procedure for submitting a statement of interest to participate in DUNEX. Contact information for the Contracting Specialist is contained in the RSOI document if additional information is needed.

Given the name, is this experiment truly “nearshore”? Or what is the focus? What is preferred? Open ocean, Estuarine? Full island?

- DUNEX was originally conceived (in 2016) as an experiment to study coastal impacts during extreme storms with a focus on collision regime (or more severe) open coast dune erosion (hence the name). However, as questions were refined, the community expanded the focus to include additional environments and the myriad of impacts that can occur during extreme coastal storms, with a particular emphasis on feedbacks between all relevant physical processes including: ocean, morphology, hydrogeology, meteorology, and ecology. We encourage participants to take a broad definition of nearshore, “the region of the coast close to shore where waves impact the seabed”, which could be in open-coast or inland shorelines.

Is there a way to participate as student if you’re not physically there?

- USCRP will identify a number of opportunities for participation, which will be posted on the USCRP website (assisting in planning, coordination, etc). In addition, we will work with the training team to identify if some of the training sessions could be broadcast over webinar.

Does the fall experiment involve Unmanned Aircraft Systems (UAS)?

- If you have a UAS and would like to fly it as part of DUNEX you will need to adhere to your agency or university’s flying regulations. If you would like to fly it at the FRF, you will need to contact the FRF’s Aviation Lead, Nicholas.J.Spore@usace.army.mil for more information regarding specific DoD regulations. If you would like to fly UAS within the national seashore, additional permits will be required. Stay tuned for information on who to contact, or reach out directly to the National Park Service in Cape Hatteras or the Fish and Wildlife Service in Manteo, NC.
- The FRF and other agencies (e.g. USGS) have a number of UAS that could be flown in support of DUNEX, depending on needs and level of support. The logistics committee would help determine if the requirement for imagery is a group or individual need. Group needs may be covered under agency support data; individual needs would have to be covered by individual PIs. If this is a requirement for your work, please indicate as such on the Logistics survey.

Will there be a call for on-site student volunteers and training sessions after the specific experiments have been determined?

- Yes, please stay tuned to the USCRP website for more information as plans develop. We will communicate this request to the training team.

Can DJI drones be flown at the FRF?

- The FRF is mandated to follow DoD regulations regarding UAS, which change frequently. Due to security concerns with DJI hardware, there are restrictions regarding these type of UAS. Please contact the FRF's Aviation Lead, Nicholas.J.Spore@usace.army.mil for more specific information.

Are the slides available online?

- Yes, please see: <https://uscoastalresearch.org/dunex>

Could a researcher construct a rubble-mound structure or similar on the FRF property to study?

- The logistics committee will work with the FRF to evaluate the needs of individual experiments on a case-by-case basis and work through any potential conflicts of interest (needs of the group's scientific questions). While permits are not required for experiments at the FRF, it would need to be determined if the construction of such features would adversely affect the outcome of the group's research goals. Ultimately, the decision will be up to the FRF Branch Chief, Dr. Jeffrey Waters.

What if there are no storms during the time of DUNEX?

- The northern Outer Banks was specifically selected at the DUNEX field site due to the prevalence of tropical and extra tropical storms that impact the region each year. While no one can guarantee that a storm will occur, it is extremely likely. We encourage PIs to design experiments that can adapt to changing environmental conditions and can be in place for multiple weeks to "wait" for a storm to occur.

How long is a typical post-storm recovery period for a typical nor'Easter on the Outer Banks?

- There is no easy answer to this question. Sometimes the beach begins to recover during the storm while wave heights are still large. Sometimes the beach and dunes can take weeks to many months (or even years) to fully recover, depending upon the severity of the storm.

Could a researcher plant various species in the dunes and/or on the bayside at the FRF to monitor their response and recovery during/after storms?

- The logistics committee will work with the FRF to evaluate the needs of individual experiments on a case-by-case basis and work through any potential conflicts of interest. While permits are not required for experiments at the FRF, it would need to be determined if the planting of different (potentially non-native) plant species would adversely affect the outcome of the group's research goals. Ultimately, the decision will be up to the FRF Branch Chief, Dr. Jeffrey Waters.

Has the science team established for DUNEX?

- The logistics committee will include a representative member from each science team, which will help coordinate science goals, similar to prior large experiments. We will test this concept during the 2019 pilot experiment and will adjust and update the management strategy as necessary moving forward.

Can researchers propose new model developments, either independent or to be couple to preexisting models?

- Sure, if the model development relates to the scientific goals of DUNEX and you secure funding to pursue this!