

Plan Overview

A Data Management Plan created using DMPTool

Title: Collaborative research: The role of ripple migration in surf zone sediment transport and sandbar migration

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Funder: National Science Foundation (nsf.gov)

Funding opportunity number: WHOI Proposal #27256.00

Template: NSF-EAR: Earth Sciences OBSOLETE

Start date: 02-01-2021

End date: 01-31-2024

Last modified: 08-05-2020

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Collaborative research: The role of ripple migration in surf zone sediment transport and sandbar migration

Types of data

The Division of Earth Sciences requires that full data sets, derived data products (e.g. model results, output, and workflows), software, and physical collections must be made publicly accessible within two (2) years of final collection.

Data will consist of hydrodynamic, ripple migration measurements and bathymetric maps.

- Hydrodynamic data will be collected using Nortek ADVs
- Ripple Migration measurements will be collected with Blue-robotics Ping single beam echo-sounders.
- Bathymetry will be collected via combinations of PingDSP 3dss and/or Blue-robotics Ping single beam echo-sounder data and PPK GPS and motion sensor data.

Data and metadata standards

Standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies).

- Raw data & metadata from ADV sensors will be stored as both binary and documented txt files as produced by the manufacturer software
- Blue-robotics Ping single beam echo-sounders will be converted to hdf5 data types with associated metadata
- PPK GPS data will stored in open source RINEX data types and Blue-robotics Ping single beam echo-sounders will be converted to hdf5 data types with associated metadata.
- Processed Bathymetry data & metadata will be stored in geotiff files

Policies for access and sharing

It is the responsibility of researchers and organizations to make results, data, derived data products, and collections available to the research community in a timely manner and at a reasonable cost. In the interest of full and open access, data should be provided at the

lowest possible cost to researchers and educators. This cost should, as a first principle, be no more than the marginal cost of filling a specific user request. Data may be made available for secondary use through submission to a national data center, publication in a widely available scientific journal, book or website, through the institutional archives that are standard for a particular discipline (e.g. IRIS for seismological data, UNAVCO for GP data), or through other EAR-specified repositories. Data inventories should be published or entered into a public database periodically and when there is a significant change in type, location or frequency of such observations. Principal Investigators working in coordinated programs may establish (in consultation with other funding agencies and NSF) more stringent data submission procedures.

At the time of collection data will be saved to local servers and cloud based storage (e.g. Google Drive). Within two years processed data will be uploaded to the WHOAS (Open Access Server of the Woods Hole Scientific Community) with DOIs for longer term access by the public.

Data access and sharing will comply with any NSF_EAR guidelines and policies

Policies and provisions for re-use, re-distribution

Policies and provisions for re-use, re-distribution, and the production of derivatives.

The data collected will not need copyright or license protection.

Final processed data will be publicly available via the WHOAS (<https://darchive.mblwhoilibary.org/>) website. Processing codes will be available on request from the PIs.

Results from the data analysis documentation of engineering designs will be reported in a scientific journal and/or technical reports.

Plans for archiving and preservation of access

Plans for archiving data, samples, and other research products, and for preservation of

Plans for mounting data, samples, and other research products, and for preservation of access to them.

Final processed data will be archived via the WHOAS (<https://darchive.mblwhoilibrary.org/>) system.
