# Request to Archive

**With The National Centers for Environmental Information For NANOOS - DOGAMI Oregon Beach And Shoreline Mapping Analysis Program (OBSMAP) dataset**

**Provided by NANOOS**

**2019-05-10**

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. **Who is the primary point of contact for this request?**

*Point of Contact*

Emilio Mayorga

Northwest Association of Networked Ocean Observing System (NANOOS)

mayorga@apl.washington.edu (and/or nanoos.dmac@gmail.com)

preferred method: e-mail

*Technical Point of Contact*

Jonanthan Allan

Oregon Department of Geology and Mineral Industries (DOGAMI)

Jonathan.ALLAN@oregon.gov

preferred method: e-mail

## Name the organization or group responsible for creating the dataset.

Oregon Department of Geological and Mineral Industries (DOGAMI) and Northwest Association of Networked Ocean Observing System (NANOOS)

1. **Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.**

Physical environmental data, such as discrete station beach profiles and tidal-datum based shorelines, have been collected along the Oregon Coast by the Oregon Department of Geological and Mineral Industries (DOGAMI) since October 2004. These data make up the Oregon Beach and Shoreline Mapping Program (OBSMAP). The data are the product of multiple funding partners, including the Northwest Association of Networked Ocean Observing System (NANOOS), the Oregon Department of Land Conservation and Development (DLCD), Oregon Parks and Recreation Department (OPRD), City of Cannon Beach, the Hatfield Marine Science Center, and federal government agencies such as the Federal Emergency Management Agency (FEMA) and the US Army Corps of Engineers (USACE). In all cases, the data are collected using Real-Time Kinematic Differential Global Positioning System (RTK-DGPS) at seasonal to annual timescales, post-processed at the DOGAMI Newport Coastal Field Office and disseminated via the web (http://nvs.nanoos.org/BeachMapping).

The OBSMAP captures changes taking place at multiple discrete transect locations along the Oregon coast. These transects show the degree of change (horizontal and vertical) taking place across the sub-aerial beach down into the inter-tidal zone. Given that these data represent discrete stations along the shore, tidal (Mean Higher High Water) datum- based shorelines are also measured in order to better understand the alongshore variations in the beach, which may be the product of rip current embayments, hotspot erosion due to storms, or changes due to climate phenomena such as El Niños and La Niñas.

## What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

The earliest date is from approximately 1997, but the exact year will depend on the specific datasets to be selected for archiving, which is still being decided on. Data collection is an ongoing program, and we anticipate archiving with NCEI to take place several times each year.

## Edition or version number(s) of the dataset:

Version 1

1. **Approximate date when the dataset was or will be released to the public:**

The dataset archived at NCEI should be public as soon it’s archived.

1. **Who are the expected users of the archived data? How will the archived data be used?**

Ask Jon.

## Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

Ask Jon.

## Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

No direct relationship (lineage) to other datasets, except for an organizational linkage to another dataset submitted under the IOOS Regional Association, Northwest Association of Networked Ocean Observing Systems (NANOOS):

“Submission Agreement Between The Northwest Association Of Networked Ocean Observing Systems And The National Centers For Environmental Information For Physical And Biological Data Collected From Buoys And Moorings In The Columbia River Estuary And Nearby Coastal Ocean From OHSU And CMOP, Compiled By NANOOS. 2017-03-13”

1. **List the input datasets and ancillary information used to produce the data.**

The dataset is primarily composed of direct field observations using GPS equipment. However, since the time series of collected beach profile information reflects data collected since 2004, we extend the length of the time series using lidar data (~1 point/m 2 ) flown by the U.S. Geological Survey (USGS)/National Aeronautics and Space Administration (NASA)/NOAA. These data were measured in October 1997 (pre El Niño), April 1998 (post El Niño), and in September 2002. The lidar data were downloaded from NOAA’s Coastal Service Center, (<http://www.csc.noaa.gov/digitalcoast/data/coastallidar/index.html>) and gridded in Esri® ArcGIS® using a triangulated irregular network (TIN) algorithm; distance and elevation data were subsequently extracted from the grid lidar digital elevation models (DEMs) and combined with the GPS data. In addition, high-resolution lidar data (~8 points/m 2 , bare- earth) measured by Watershed Sciences, Inc. (WSI) in 2008/2009 for DOGAMI were also analyzed and integrated into the beach profile data set. This was especially important for backshore areas where it was not possible to survey with the GPS equipment.

1. **List web pages and other links that provide information on the data.**

<http://nvs.nanoos.org/BeachMapping>

<http://www.nanoos.org/documents/certification/DMP/11.DMP.ORBeachShorelineObs.pdf>

1. **List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.**

Currently for each transect there is a FGDC metadata document stored in a MS Excel file, and a Matlab “.mat” file storing all the transect survey data. The data are presented visually on the NANOOS Visualization System (NVS) Beach and Shoreline Changes App, <http://nvs.nanoos.org/BeachMapping>. For each transect, plots of profiles, shoreline positions and shoreline change trends are also available on that App (for example, <http://nvs.nanoos.org/BeachMapping?action=oiw:beach_mapping_point:nesk15:plots:profile>).The file format, names and compression for the archived data will be decided on jointly by NANOOS and NCEI.

A Data Management Plan is available at <http://www.nanoos.org/documents/certification/DMP/11.DMP.ORBeachShorelineObs.pdf>

## 13. Indicate the data file format(s).

The file format, names and compression will be decided on jointly by NANOOS and NCEI.

1. **Are the data files compressed?**

The file format, names and compression will be decided on jointly by NANOOS and NCEI.

## Provide details on how the files are named and how they are organized (e.g., file\_name\_pattern\_YYYYMM.tar in monthly aggregations).

The file format, names and compression will be decided on jointly by NANOOS and NCEI.

## Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

## These are for previewing by NCEI, right? We are making them available to NCEI staff (Julie Bosch) by direct communication, at this time. Sample files could be posted online on a NANOOS server if that is helpful.

## What is the total data volume to be submitted?

**Historic Data: all historic data or data submitted as a completed collection.**

Total Data Volume: See below

Number of Data Files: 46 – 120, if we proceed with using one file per transect (site).

* Number of transects (sites): Between 46 and 120. The exact number will be decided as we proceed with the archiving process, and we may choose to focus on a subset initially, then archive the rest later on.
* Survey frequency is typically seasonally. Early in the program surveying was done on a monthly-bi-monthly basis, and later switched to seasonal. There are times when surveys are conducted after major storms, while for some transects surveys are done annually depending on funding situation.
* Currently there is one file per transect, storing all surveys collected on that transect. This could change depending on discussions between NCEI and NANOOS. As a guide, one representative Matlab (“.mat”) transect file is 200 KB, containing 53 surveys (October 2017 – December 2018) at one transect.

**Continuous Data: data volume rate for a continuous data production.**

Total Data Volume Rate: See below

Data File Frequency: Maximum of 480 (4 x 120) files per Year. Likely less than that, possibly by half.

Data Production Start: TBD (after Historic Data are archived)

* Information under Historic Data applies here, too. Survey frequency will be seasonal (2-4 times a year). Files will be made available for archiving within two months after survey is completed.

## Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No.

1. **Describe the server that will connect to the ingest server at NCEI for submitting the data.**

We anticipate a submission process following procedures previously established between NANOOS and NCEI, involving a data pull initiated by NCEI at regular intervals, from the NANOOS web server at url path <http://data.nanoos.org/ncei/dogami/>

## What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL
2. HTTP PULL

## 21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

Distribute online as other NANOOS datasets archived at NCEI available via an accession number. For example:

<https://data.nodc.noaa.gov/cgi-bin/iso?id=gov.noaa.nodc:0162189>

As in that example, data files should be downloadable via FTP and HTTPS protocols, and if applicable, via an appropriate standardized web service such as THREDDS/OPeNDAP or OGC WFS and WMS.

1. **Will there be any distribution, usage, or other restrictions that apply to the data in the archive?**

No. However, data should be properly acknowledged.

## Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

As a Regional Information Coordination Entity (RICE), NANOOS is required to archive with NCEI data supported by IOOS. These data are collected for the purpose of informing and assessing coastal hazards, and the data would best serve the public by being accessible in the short and long term via NCEI.

## Are the data archived at another facility or are there plans to do so? Please explain.

## DOGAMI is the state archive repository for geologic data collected by the agency. Historic data from OBSMAP stations are archived semi-annually for safe storage and agency access. However, this archive does not provide public access.

## Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

As a Regional Information Coordination Entity (RICE), NANOOS is required to archive with NCEI data supported by IOOS. I am in communication with Julie Bosch from NCEI.

## Do you have a data management plan for your data?

## Yes.

<http://www.nanoos.org/documents/certification/DMP/11.DMP.ORBeachShorelineObs.pdf>

<http://www.nanoos.org/documents/certification/NANOOS_DMP.pdf>

1. **Have funds been allocated to archive the data at NCEI?**

No.

## Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

NANOOS

DOGAMI/OR funding?

(We can flesh this out later)

1. **Is there a desired deadline for NCEI to archive and provide access to the data?**

No deadlines for archive or access.

## Add any other pertinent information for this request.

None at this time.