

**SUBMISSION AGREEMENT  
BETWEEN  
THE SOUTHEAST COASTAL OCEAN OBSERVING SYSTEM REGIONAL  
ASSOCIATION  
AND  
THE NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION  
FOR SOUTHEAST COASTAL OCEAN OBSERVING SYSTEM (SECOORA) NON-  
FEDERAL MOORING ASSETS.**

**2016-02-25**

**Introduction**

This document represents the agreement that the Southeast Coastal Ocean Observing System Regional Association (SECOORA) (the "Provider") and the National Centers for Environmental Information (NCEI) (the "Archive") have reached for submitting the Provider's data, Southeast Coastal Ocean Observing System (SECOORA) non-Federal mooring assets., to the Archive for long-term preservation. It represents a joint effort between the Provider and the Archive to accurately document the agreement and the expectations between the two groups.

In order to ensure that the quality and integrity of the archived data is not compromised, the Provider and the Archive agree to maintain this agreement with accurate and up-to-date information through the life of the data submission.

Add comments as needed

**Contacts**

Persons included in all communications regarding the data submission.

**Provider Contacts**

Point of Contact	Technical Point Of Contact
Vembu Subramanian	Jeremy Cothran
SECOORA	SECOORA
RCOOS Manager	Database Manager
727-525-1926	803-777-4469
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**Archive Contacts**

Data Acquisition, NCEI-IOOS Point Of  
Contact  
Mathew Biddle  
NCEI/CICS-MD  
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## **Data Overview**

SECOORA is one of 11 Regional Associations established nationwide through the NOAA Integrated Ocean Observing System (IOOS). IOOS coordinates the multi-agency, cooperative effort to routinely collect realtime data and manage historical information based on a continuously operating network of buoys, ships, satellites, underwater vehicles, and other platforms. These data are needed for many purposes which include rapid detection and prediction of changes in our nation's ocean and coastal waters.

from: [http://secoora.org/sites/default/files/webfm/members/documents/SECOORA\\_Strategic\\_Priorities.pdf](http://secoora.org/sites/default/files/webfm/members/documents/SECOORA_Strategic_Priorities.pdf)

SECOORA will be starting the automation process with a group of non-federal in-situ data sets.

To collect realtime data and manage historical information based on a continuously operating network of buoys..

These are netCDF format in-situ buoy data collected in conjunction with SECOORA. SECOORA is one of 11 Regional Associations established nationwide through the NOAA Integrated Ocean Observing System (IOOS). IOOS coordinates the multi-agency, cooperative effort to routinely collect real-time data and manage historical information based on a continuously operating network of buoys, ships, satellites, underwater vehicles, and other platforms. These data are needed for many purposes which include rapid detection and prediction of changes in our nation's ocean and coastal waters.

Temperature, Salinity, Water Currents, Wind Direction, Wind Speed, Air Temperature, Barometric Pressure

in situ (SECOORA In-Situ Data: air temp, wind from direction, wind speed, wind gust, air pressure, significant wave height, dominant wave period, water level), air pressure, air temperature, salinity, bottom temperature, sea surface temperature, surface currents (in situ), water level, waves, wind, other parameters (turbidity, pH, oxygen, chlorophyll, discharge, solar radiation). ([http://secoora.org/data/data\\_feeds](http://secoora.org/data/data_feeds))

Start with in-situ

non-Fed buoys

Real-Time Fixed Multi Purpose Moorings, Real-time Coastal Stations - Meteorology and Water Quality Data, in-situ non-federal instruments

Physical, Biological, Chemical, Water Chemistry, Meteorological, Surface Measurements, Optical, Drifting Buoy, Current Measurements, Moored Buoy

## **Applicable and Reference Documents**

Documents applicable to or referenced from this agreement.

1. <http://www.nodc.noaa.gov/data/formats/netcdf/v1.1/index.html>
2. <https://docs.google.com/a/noaa.gov/document/d/1jdJ4S1NqulqBUWA1j14JrLWh3DnAai6umxq9YXLHieY/edit?usp=sharing>

## **Submission Scope**

### **Active Submission Period**

**Data Types**

Below is a summary of the data sizing and submission schedule by data type group. Enter information on at least one data type.

Data Type Name	Data Sizing	Submission Schedule
air_pressure	multiple files	Monthly
air_temperature	multiple files	Monthly
depth	multiple files	Monthly
direction_of_sea_water_velocity	multiple files	Monthly
fractional_saturation_of_oxygen_in_sea_water	multiple files	Monthly
mass_concentration_of_chlorophyll_a_in_sea_water	multiple files	Monthly
mass_concentration_of_oxygen_in_sea_water	multiple files	Monthly
mole_concentration_of_nitrate_in_sea_water	multiple files	Monthly
mole_concentration_of_phosphate_in_sea_water	multiple files	Monthly
photosynthetically_available_radiation	multiple files	Monthly
precipitation_amount	multiple files	Monthly
relative_humidity	multiple files	Monthly
sea_water_electrical_conductivity	multiple files	Monthly
sea_water_salinity	multiple files	Monthly
sea_water_speed	multiple files	Monthly
sea_water_temperature	multiple files	Monthly
sea_water_turbidity	multiple files	Monthly
volume_absorption_coefficient_of_radiative_flux_in_sea_water_due_to_dissolved_organic_matter	multiple files	Monthly
water_surface_height_above_reference_datum	multiple files	Monthly
wind_from_direction	multiple files	Monthly
wind_speed	multiple files	Monthly
wind_speed_of_gust	multiple files	Monthly

sea_surface_wave_significant_height	multiple files	Monthly
sea_surface_swell_wave_period	multiple files	Monthly

### Reviews and Testing

None. Upload the data files, if replacements, with the same file naming convention as the old files. The differing checksums will initiate an revision. SECOORA will notify NODC of any changes to this established procedure.

### Providing System

Identification of the system providing the data to NCEI.

System Name: opensource database  
System Owner: SECOORA  
Physical Location: St. Petersburg, Florida  
Additional Information: SECOORA's internal processing is documented at <https://github.com/ioos/db2ncsos>.

### Transfer Interface

We will pull from SECOORA's http at <http://neptune.baruch.sc.edu/xenia/nc/monthly> each directory therein. NODC will archive the data from SECOORA's http server on a monthly basis. The packages will have associated checksum files that have similar names except for the addition of .md5.txt on the checksum files. SECOORA will be updating their files ~every 6 days and NODC will archive the files that have differing checksums or that do not previously exist.

### Submission File Inventory

Information on each submitted file type from the Provider. Information on multiple file types can be added below.

**File Type Name:** Data Files

**File Name Pattern:**

organization.platformName.platformType\_YYYY\_MM\_DD\_HH.nc

**File Name Field Definitions:**

organization - organization

platformName - name of platform

platformType - platform\_type is optional, if it is not included the title will follow this format

organization.platformName.\_YYYY\_MM\_DD\_HH.nc

YYYY\_MM\_DD\_HH - Year, month, day, hour is 24hr format from when the file was generated.

**Example File Name:**

carocoops.cap2.buoy\_2014\_03\_28\_05.nc

**File Format:** netCDF

**File Compression:** None

**File Size Average:** 30KB

**File Size Range:** 13KB to 40KB

**File Count (Rate):** 62 files per month

**Data Volume (Rate):** 1860 KB per month

**Submission Schedule:** monthly

**Additional Information:** NODC netCDF timeseries template V1.1 CF and ACDD compliant

**Descriptive Information Attributes:**

Attribute	Source	Use
creator_name	global attribute	For use in mapping to institutions and projects.
sea_area	global attribute	for use in mapping to sea names.
keywords	global attribute	For compiling a list of keywords specified from SECOORA

## Submission Manifest

A submission manifest file with a 32-character MD5 checksum value is required for each submitted file in order to ensure the integrity of the submitted data.

### File Content Specification:

A submission manifest file contains a tab delimited list of submitted file names and associated checksums for one of the submitted files. There will be a manifest for each individual file. The manifests file naming convention will follow the naming convention for the associated netCDF file, with the exception of the extension. The file extension will be changed from .nc to .nc.md5.txt for the submission manifest. Below is an example of the contents of a submission manifest file:

```
$ more enp.lrkf1.met_2014_10_01_18.nc.md5.txt
```

```
93f03fc4ee82050da8046f9f9e0020c1 enp.lrkf1.met_2014_10_01_18.nc
```

### File Transmission:

Every month in congruence with the netCDF file updates.

**File Name Pattern:**

organization.platformName.platformType\_YYYY\_MM\_DD\_HH.nc.md5.txt

**File Name Definitions:**

organization - organization

platformName - name of platform

platformType - platform\_type is optional, if it is not included the title will follow this format

organization.platformName.\_YYYY\_MM\_DD\_HH.md5.txt

YYYY\_MM\_DD\_HH - Year, month, day, hour is 24hr format from when the file was generated.

**Example File Name:**

carocoops.cap2.buoy\_2014\_03\_28\_05.nc.md5.txt

**Archive Ingest**

Ingest processing steps at the Archive and communication with the Provider.

**Receipt Verification:**

The Archive will use the provided file name and 32-character MD5 checksum value to verify the integrity of a delivered file. No e-mail receipt verification is required for SECOORA.

**Error Reconciliation:**

The Archive will report any problems or errors with file integrity, file name, checksum validation, or other errors that inhibit the data ingest and archive to the Provider. A new corresponding submission manifest will be required for files re-submitted by the Provider.

**Receipt Confirmation:**

The Archive will provide a notification describing the datasets publication and archival. Appropriate links to the archived data sets will be provided in the e-mail correspondence.

**Quality Assurance:**

No quality checks on the submitted data are planned.

**Archive File Packaging:**

Archival Information Packages (AIPs) will be organized into one AIP per platform type. The data files will be exact duplicates of the data that was posted to the FTP server.

**Archive Storage**

Archive attributes of each archived file type.

<b>Archive File Type Name:</b> Descriptive name for this archive file type	
<b>Archive File Attributes/IDs:</b>	
Attribute/ID Type	Value
	Attribute/ID value

**Archive Updates**

New, never-before seen data files will be archived based on which buoy they are: each buoy will be assigned an accession number.

New, data from a previously submitted buoy: The AIP for that buoy will be updated (NODC's major-revision) with the new data file.

Revised, data that was previously submitted that needs to be updated: If the naming conventions match and the checksums do not match, then the most recent submission of that file will be assumed to be the latest and greatest submission and will replace the previous file.

## **Retention Schedule**

The data will be retained in the Archive for long-term preservation in accordance with NOAA data management standards. Information on data usage and archive value may be used for making decisions on continuing the duration of the archive.

(Notional) Disposition:

## **Constraints**

No constraints apply or will apply to the archived data.

## **User Community**

Oceanographers. Integrated Ocean Observing System affiliates.

## **User Documentation and Metadata**

The Provider will supply information to the Archive for writing and maintaining standard archive metadata, which includes data discovery information, references and data archive access links for users. The following published documents and archived items will be referenced from the metadata and made available to users.

### **Representation Information Items**

For data to be useful to users, present and future, its format specification and characteristics must be documented and preserved with the data. Representation Information provides users with syntax (structure) and/or semantics (meaning) to decode the encoded data.

Item	Description
Item name or citation	Item description or intended use

### **Preservation Descriptive Information Items**

Preservation Descriptive Information items contain context, provenance, and/or quality information for the data.

Item	Description
Item name or citation	Item description or intended use

## **Access and Dissemination**

The Archive will provide access services for the data and supporting information to the designated user community.

**Additional Terms**

None.