

**SUBMISSION AGREEMENT  
BETWEEN  
THE GULF OF MEXICO COASTAL OCEAN OBSERVING SYSTEM  
AND  
THE NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION  
FOR GULF COAST OCEAN OBSERVING SYSTEM (GCOOS) LOCAL DATA NODES**

**2016-06-16**

**Introduction**

This document represents the agreement that the Gulf of Mexico Coastal Ocean Observing System (GCOOS) (the "Provider") and the National Centers for Environmental Information (NCEI) (the "Archive") have reached for submitting the Provider's data, Gulf Coast Ocean Observing System (GCOOS) Local Data Nodes, 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	DMAC Coordinator
Felimon Gayanilo	Matthew Howard
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**Archive Contacts**

Data Acquisition, NCEI-IOOS Point of  
Contact  
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## Data Overview

GCOOS 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.

## Applicable and Reference Documents

Documents applicable to or referenced from this agreement.

1. <http://www.nodc.noaa.gov/data/formats/netcdf/v2.0/index.html>

## Submission Scope

### Active Submission Period

2016-04-15 -

### 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
direction_of_sea_water_velocity	multiple files	Monthly
eastward_sea_water_velocity	multiple files	Monthly
mass_concentration_of_chlorophyll_in_sea_water	multiple files	Monthly
northward_sea_water_velocity	multiple files	Monthly
sea_surface_height_above_sea_level	multiple files	Monthly
sea_water_practical_salinity	multiple files	Monthly
sea_water_speed	multiple files	Monthly
sea_water_temperature	multiple files	Monthly
sea_water_turbidity	multiple files	Monthly
upward_sea_water_velocity	multiple files	Monthly
altitude	multiple files	Monthly
air_pressure	multiple files	Monthly
air_temperature	multiple files	Monthly
altitude	multiple files	Monthly
relative_humidity	multiple files	Monthly
wind_speed	multiple files	Monthly
wind_speed_of_gust	multiple files	Monthly

wind_to_direction	multiple files	Monthly
mole_concentration_of_dissolved_molecular_oxygen_in_sea_water	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. GCOOS will notify NCEI of any changes to this established procedure.

### Providing System

Identification of the system providing the data to NCEI.

System Name: Identification of the system supplying the data to the Archive.

System Owner: Felimon Gayanilo

Physical Location: College Station, TX

Additional Information: Add comments as needed on applicable data types, etc.

### Transfer Interface

We will pull from GCOOS' web accessible folder at [http://data.gcoos.org/data/waf/nc\\_by\\_platform/](http://data.gcoos.org/data/waf/nc_by_platform/) each directory therein, excluding the federal/ directory. NCEI will archive the data from GCOOS' http server on a monthly basis. The packages will have associated checksum files in the form of a singular manifest (SHA384SUM) for each yearly directory. GCOOS will be updating their files ~every month and NCEI 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:**

gcoos\_ioos\_station\_stationName\_yyyy\_mm\_ocn/atm.nc

**File Name Field Definitions:**

gcoos\_ioos\_station - This will always be in the file names.

stationName - This is the name of the station (could possibly include underscores)

yyyy - four digit reporting year

mm - two digit reporting month

ocn/atm - This can be either ocn or atm, ocn refers to ocean variables, where atm refers to atmospheric variables.

**Example File Name:**

gcoos\_ioos\_station\_wmo\_42045\_2008\_11\_ocn.nc

**File Format:** netCDF-4

**File Compression:** None

**File Size Average:** 1511KB

**File Size Range:** 68KB to 8976KB

**File Count (Rate):** 84 files per month

**Data Volume (Rate):** 123 MB per month

**Submission Schedule:** monthly

**Additional Information:** NCEI netCDF timeSeries Orthogonal template v2.0, CF and ACDD compliant

**Descriptive Information Attributes:**

Attribute	Source	Use
keywords	global attribute	For compiling a list of keywords specified from GCOOS
institution	global attribute	For compiling a list of institutions specified from GCOOS
contributor_name	global attribute	For compiling a list of institutions specified from GCOOS

## 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 all of the files intended to be submitted. There will be one manifest inside each year directory for all of the individual files. The manifests file naming convention will follow SHA384SUM. Below is an example of the contents of a submission manifest file:

```
$ more ./ocn/ldn/2008/SHA384SUM
```

```
03f139b79775fb0e1a1d49d639fdf3aea00a5ff900af5f92681eaff41c42ce3cf59ebae64c98c19f490641d86273dc73
```

```
gcoos_ioos_station_DISL_DISL_2008_07_ocn.nc
```

```
adadf218b0ea804cf782d1a9d525e12391185d6f57fc8ae6199e3036dd582c63a07a085a8f8490c766e8a5280ef72dcd
```

```
gcoos_ioos_station_DISL_DISL_2008_08_ocn.nc
```

```
cb59a7b712b915f5587c81ffd5678c6eb81fe55f4a3e39e12bbce4316fa282e67f453260c7720ebabe3ae1e345abfcf9
```

```
gcoos_ioos_station_DISL_DISL_2008_09_ocn.nc
```

613e00fce74e0dbf56cf48424feb0bcae3235278d924263cca8f96ae5de5b486ba7f49751764dcc36640edda027516d  
gcoos\_ioos\_station\_DISL\_DISL\_2008\_10\_ocn.nc  
d47228fae787a4e15d63c5f8506397cbb3d964f66b67f955d0b888b17103223daedcc16d2f8ec3dab8a6eef9ef22e4c5  
gcoos\_ioos\_station\_DISL\_DISL\_2008\_11\_ocn.nc  
5b4182d2e0ded7e03fcb9b2711f2957f3d0792c80fc352c653ef3130395b14c2cfa12392f9372214ad3049c0452081a8  
gcoos\_ioos\_station\_DISL\_DISL\_2008\_12\_ocn.nc  
36dee0aee56698b4de849ec4ccced07be8680ebd4a047a89453fdb4d1a3cc7bdabebd84af67314ed5bb8abb6d44ff241  
gcoos\_ioos\_station\_DISL\_MBLA\_2008\_07\_ocn.nc  
75c9d8cb2d269fcd89d740163bd24eff97ba6e4ffd4f038983ef6415e3acd3b45d925dbb3a4acccd46b2ff6fb8cc1658  
gcoos\_ioos\_station\_DISL\_MBLA\_2008\_08\_ocn.nc  
38d33157ce1cefa4bf9f37838967caa43296b657b493291c8024be6f587cd01cb2f9110f06e6a810c4c249b657685da8  
gcoos\_ioos\_station\_DISL\_MBLA\_2008\_09\_ocn.nc

**File Transmission:**

Every month in congruence with the netCDF file updates.

**File Name Pattern:**

SHA384SUM

**File Name Definitions:**

File name will always be SHA384SUM inside each year directory.

**Example File Name:**

SHA384SUM

**Archive Ingest**

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

**Receipt Verification:**

The Archive will use the provided file name and SHA 384 checksum value to verify the integrity of a delivered file. No e-mail receipt verification is required for GCOOS.

**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 an inventory of the data ingested once it is completed or as requested by the Provider.

**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. 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.