IOOS National Glider Data Assembly Center

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INTEGRATED OCEAN OBSERVING SYSTEM
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Background

- Construction began in 2013
  - 2 NetCDF specifications
  - Current Version running since late 2014
- Goals:
  - Simple file format & submission process for data providers
  - Provide data access via existing web services, in a variety of well-know formats
  - Facilitate the distribution of data sets to the Global Telecommunication Service (GTS)
  - Permanent data archive (NODC)

Glider Types

- Glider types (currently only profiling gliders)
  - Seagliders
  - Spray
  - Slocum
- Future:
  - Surface/horizontal sampling platforms
    - Waveglider
    - Submaran UUSV
    - Remus

NetCDF File Specification

- Simple format describing a single profile
- Aggregated to create CF-compliant trajectory profile file type representing a single deployment
- Original data resolution preserved.
- Current focus: CTD and derived properties and u/v estimates.
- Future (2015 and beyond): O_2, optics, ADCP and others.

Resources for Data Providers

- Github:
  - https://github.com/ioos/ioosngdac
- Wiki:
  - https://github.com/ioos/ioosngdac/wiki

Submission Process

ioos.gliders.ops@noaa.gov

- Data provider registration (1-time only)
- Active deployments require a WMO id (assigned by the DAC via NDBC), which are reused provided the glider is deployed in the same WMO region
- Deployment registration
- Upload (ftp) NetCDF files

Deployment Registration

IOOS Glider DAC v2 Login

Recent Uploads

Deployment	File	Updated
UCSC260-20150520T0000	UCSC260_20150521T200518_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150525T172250_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150526T003730_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150521T070016_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150526T044836_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150524T122536_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150523T205338_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150527T235212_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150526T091345_rt0.nc	21 minutes ago
UCSC260-20150520T0000	UCSC260_20150521T120757_rt0.nc	21 minutes ago

Deployments

Deployment	WMO ID	Updated
clark-20130821T2130		2015 May 15
gichigami-20110701T0123	4801904	2015 May 18
ru01-20140104T1621		2014 Nov 21
ru01-20140120T1444		2014 Nov 21

At a Glance

Deployments	20
Dives	88667

Operators

Large Lakes Observatory - UMD	1 deployment
Woods Hole Oceanographic Institution	1 deployment
Rutgers University	26 deployments
University of Delaware	2 deployments
Scripps Institution of Oceanography	26 deployments
University of Alaska Fairbanks	1 deployment
Oregon State University (NANOOS/CeNCOOS)	2 deployments
Teledyne Webb Research	1 deployment
CeNCOOS/MBARI/UCSC	2 deployments
Atlantic Oceanographic and Meteorological Laboratory (AOML)	4 deployments

Deployment Registration

IOOS Glider DAC v2 Your Deployments ADMIN rutgers

Deployments for rutgers

Deployment Name | WMO ID (optional) | + New Deployment

Deployment	Operator	WMO ID	Last Updated
clark-20130821T2130	Teledyne Webb Research		2015 May 15
ru01-20140104T1621	Rutgers University		2014 Dec 08
ru01-20140120T1444	Rutgers University		2014 Dec 08
ru01-20140123T1250	Rutgers University		2014 Dec 08
ru01-20140217T1244	Rutgers University		2014 Dec 08
ru05-20150105T1600	Rutgers University	7801500	2015 Jan 15
ru05-20150115T1443	Rutgers University	7801500	2015 Feb 02
ru05-20150201T2130	Rutgers University	7801500	2015 Feb 08
ru22-20130924T2010	Rutgers University	4801506	2014 Dec 08
ru22-20140804T1632	Rutgers University	4801506	2014 Dec 08
ru22-20140825T1505	Rutgers University	4801506	2014 Dec 08
ru23-20130305T2004	Rutgers University	4801507	2014 Dec 08
ru23-20130910T1701	Rutgers University	4801507	2014 Dec 08
ru23-20131017T1614	Rutgers University	4801507	2014 Dec 08
ru23-20140814T1239	Rutgers University	4801507	2014 Dec 08

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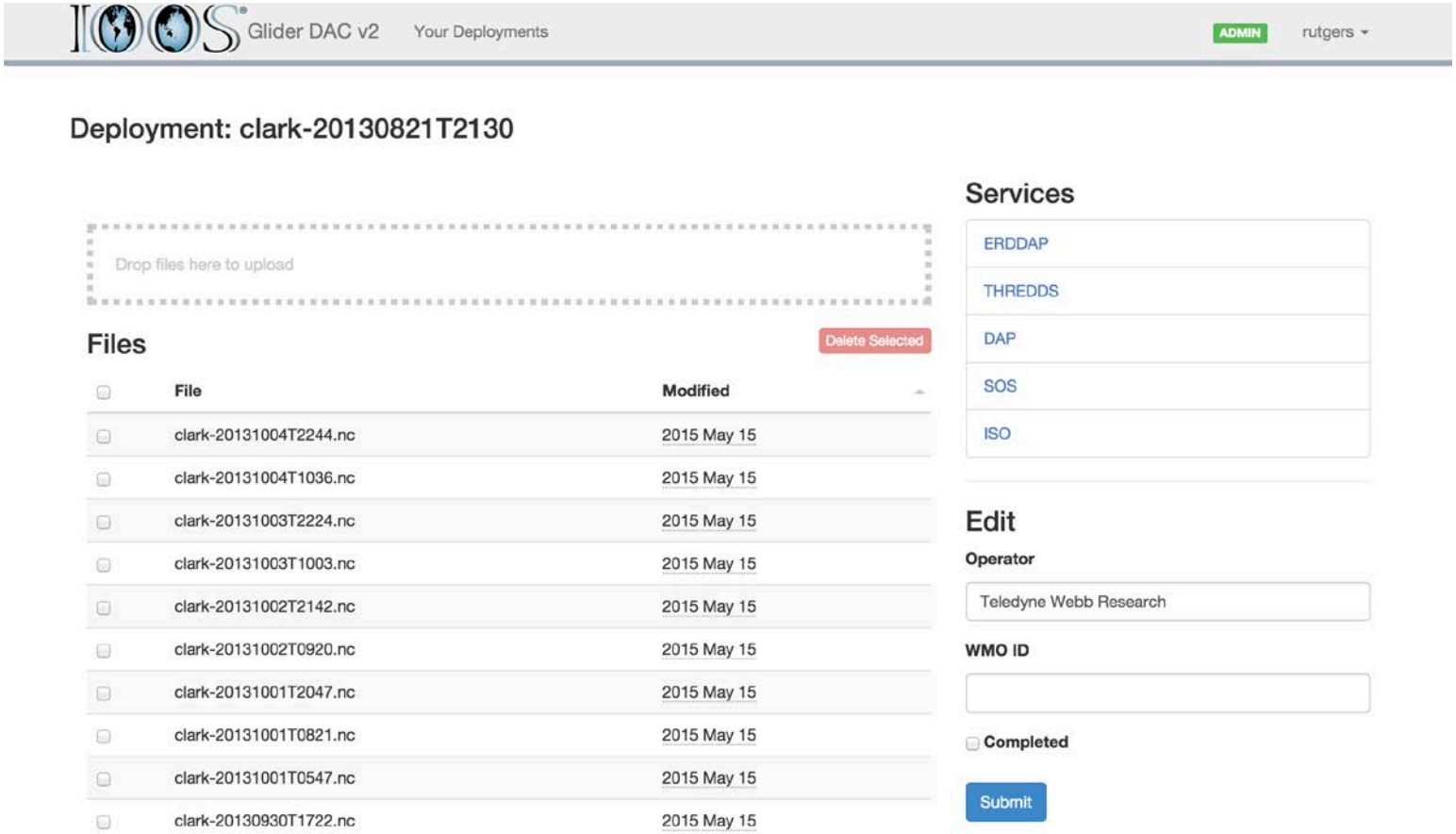
FTP NetCDF Files

1. Drag & drop
2. FTP client



Track Data Set Status

IOOS NGDAC 2.0 | All Datasets | Status | Latest | Institutions | Operators | Data Providers | WMO IDs | Summary Map | May. 28, 2015 11:08:10 Z | Help

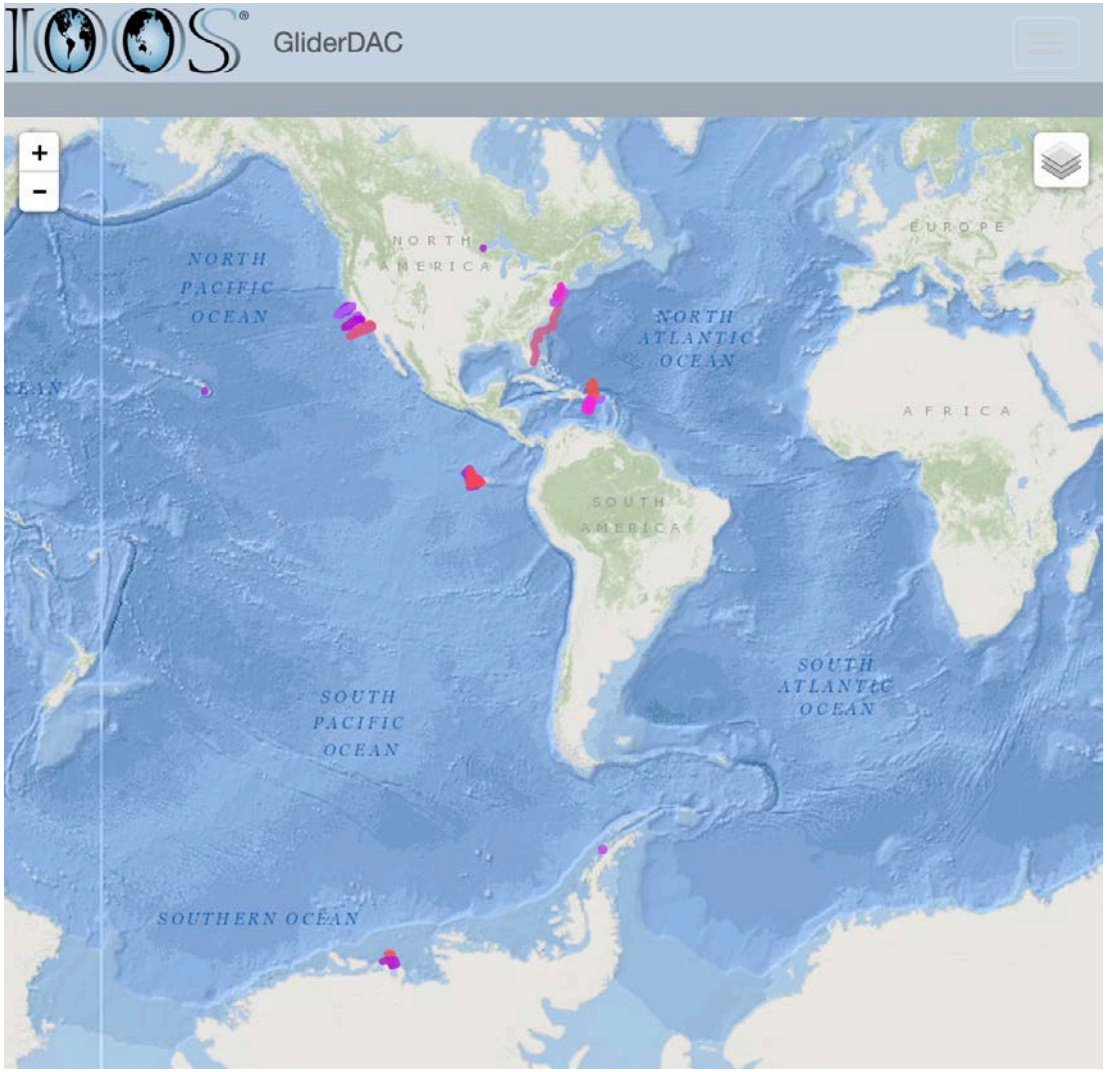
15 Latest Dataset Updates as of: May 28, 2015 10:10 Z

All Datasets Are Complete

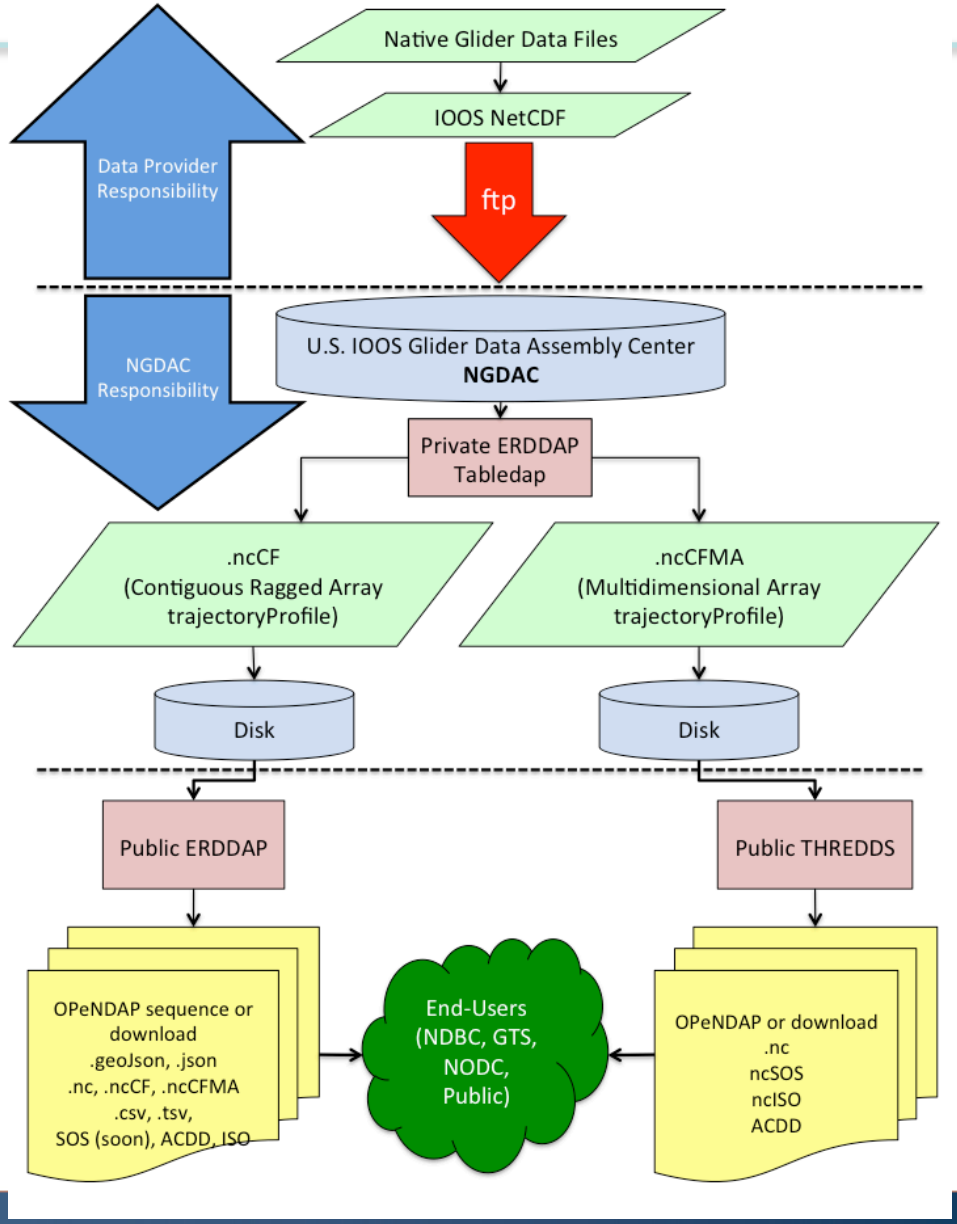
ERDDAP and THREDDS end points exist for all registered deployments. Have a nice day.

Deployment	Operator/ Provider	WMO ID	ERDDAP	Graph	Metadata	# Profiles	Time Coverage Start (Z)	Time Coverage End (Z)	THREDDS	RSS
UW130-20150309T2005	Oregon State University (NANOOS/CeNCOOS) mbari	4801907				648	2015-03-09 20:10	2015-05-28 04:07		
sp039-20150122T1750	Scripps Institution of Oceanography drudnick	4801902				856	2015-01-22 19:12	2015-05-28 03:35		
sp040-20150409T1841	Scripps Institution of Oceanography drudnick	4801910				424	2015-04-09 20:04	2015-05-28 01:40		
sp035-20150331T1646	Scripps Institution of Oceanography drudnick	4801908				499	2015-03-31 18:10	2015-05-28 01:32		
sp011-20150427T1749	Scripps Institution of Oceanography drudnick	4801912				255	2015-04-27 19:16	2015-05-28 01:12		
sp048-20150127T1824	Scripps Institution of Oceanography drudnick	4801903				348	2015-01-27 19:47	2015-05-27 21:42		
sp042-20150318T2227	Scripps Institution of Oceanography drudnick	5801901				305	2015-03-18 23:46	2015-05-27 20:32		
sp010-20150409T1524	Woods Hole Oceanographic Institution drudnick	4801909				289	2015-04-09 16:41	2015-05-15 18:34		
sp050-20150206T1231	Scripps Institution of Oceanography drudnick	3801502				396	2015-02-06 13:56	2015-05-14 12:49		
sp030-20150109T2113	Scripps Institution of Oceanography drudnick	4801901				1007	2015-01-09 22:34	2015-04-27 12:16		
SG60920150206T1720	Atlantic Oceanographic and Meteorological Laboratory (AOML) aoml	48916				964	2015-02-06 17:11	2015-04-27 11:12		

Deployment Locations



IOOS Glider DAC Data Flow



Benefits for Data Providers

- Assimilation of glider data sets into local, regional, global scale models via GTS
- Multiple public access points, providing access in a variety of formats
  - ERDDAP
  - THREDDS
- Permanent data archive
- RA recognition
- IOOS data catalogs
- Discoverability
- IOOS RA Compliance

Current/Future Work

Encourage Participation from RAs:
What are the impediments?

- Community Contributed Toolboxes
- Compliance enforcement
- Addition of O_2, optics, ADCP, etc., data
- Confirmation of GTS transmission w/ OSMC
- Client-side data visualization
- Quality Assurance/Control