Jason-1 Geodetic Datasets at PO.DAAC

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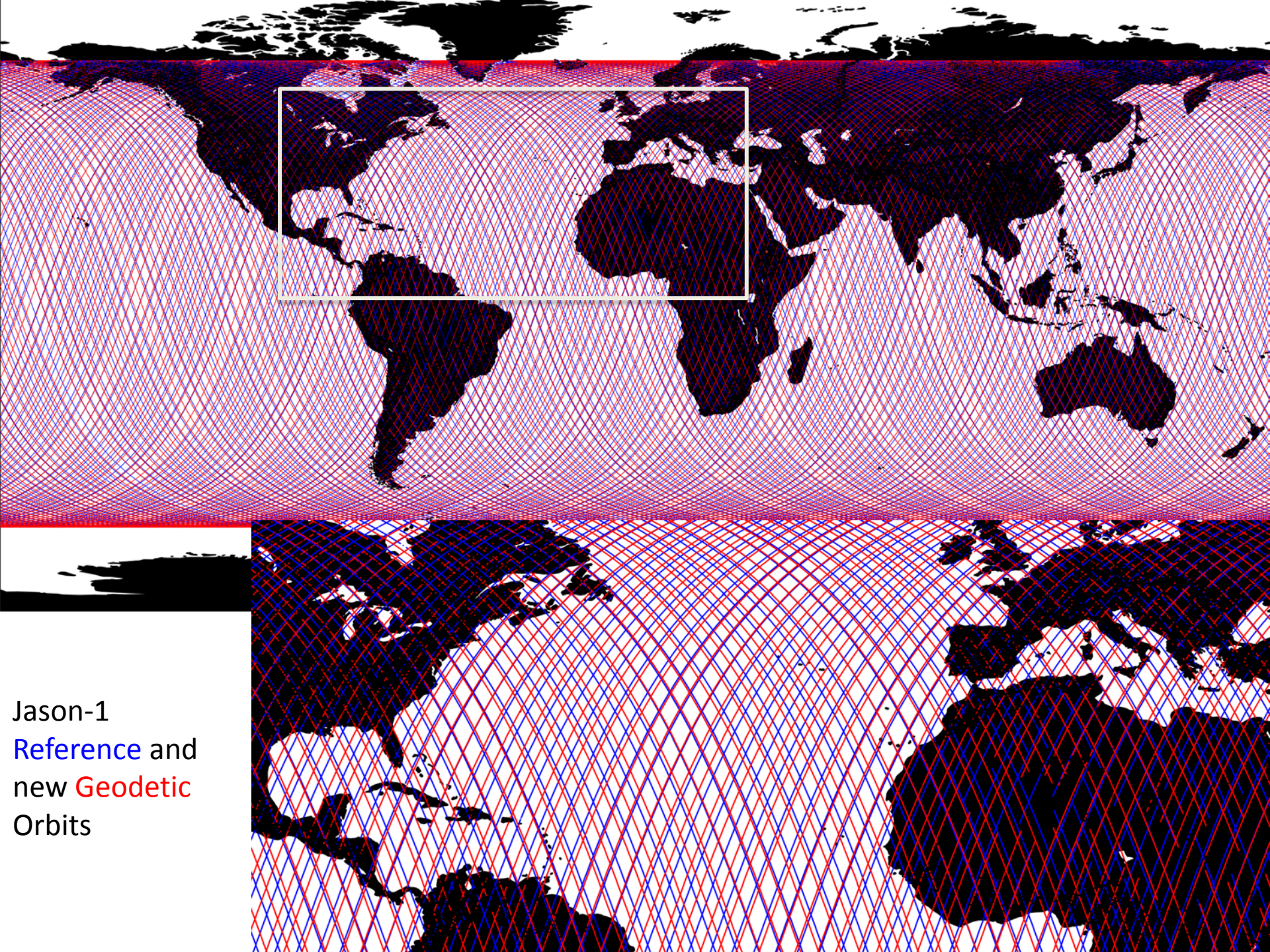
Jason-1 was moved from the reference orbit into a geodetic orbit in May 2012 after experiencing 2 safeholds.

The data format and parameters remained the same.

	Reference orbit	Geodetic orbit
Semi-Major Axis	7,714.43 km	7,702.437 km
Eccentricity	0.000095	0.00013 - 0.00028
Altitude at Equator	1,336 km	1,324 km
Orbital Period	6,745.72 sec	6730.0 sec
Inclination	66.04°	66.042°
Cycle	9.9 days	10.9 (406 full) days
Passes	254	280



Jason-1 Reference and new Geodetic Orbits

Jason-1 Geodetic Series

Geodetic data start at cycle 500

New orbit will effect SSHA accuracy

To reduce user confusion between old and geodetic orbits new datasets were created

6 Near Real Time (NRT), 5 historical (GDR), 18 instrument level/internal use

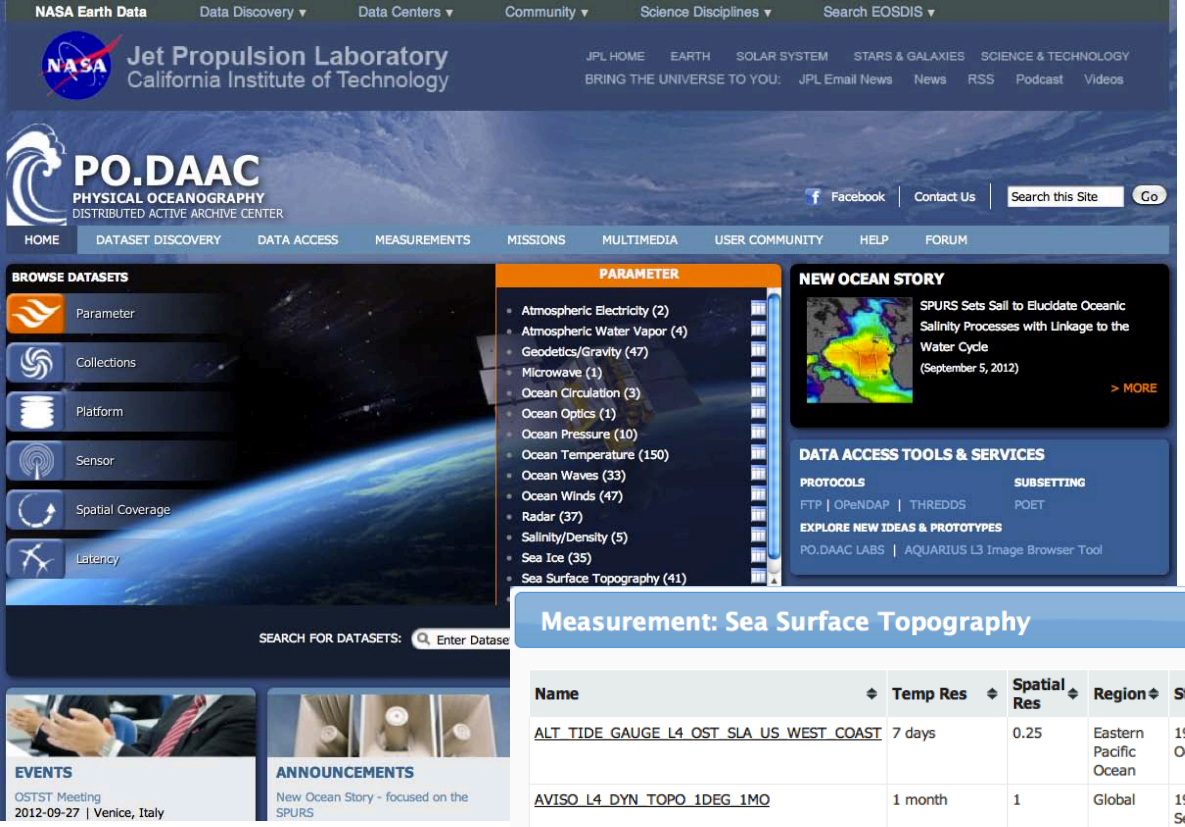
New Jason-1 Geodetic platform on the PO.DAAC website

http://podaac.jpl.nasa.gov

Index of /allData/jason1/L2/

Name	Size	Date Modified
[parent directory]		
README_safehold_ends_new_mission_begins.txt	1915 B	4/24/12 6:30:00 PM
docs/		10/28/11 12:00:00 AM
gdr	0 B	4/25/11 12:00:00 AM
gdr_c/		6/5/12 12:55:00 PM
gdr_netcdf_c/		8/1/12 4:59:00 PM
gdr_ssha_netcdf_c/		8/1/12 5:01:00 PM
igdr/		9/6/12 1:53:00 PM
igdr_geodetic/		9/6/12 10:06:00 AM
igdr_netcdf/		5/30/12 11:14:00 AM
igdr_netcdf_geodetic/		9/7/12 11:06:00 PM
igdr_ssha_netcdf/		5/30/12 11:15:00 AM
igdr_ssha_netcdf_geodetic/		9/7/12 7:05:00 PM
j1_nrtssha/		9/8/12 9:55:00 AM
j1_nrtssha_geodetic/		9/4/12 3:35:00 PM
j1_ssha/		9/6/12 1:53:00 PM
osdr/		9/6/12 1:53:00 PM
osdr_geodetic/		9/8/12 8:53:00 AM
sgdr_c/		6/7/12 12:55:00 AM
sgdr_netcdf_c/		8/1/12 5:13:00 PM
sigdr_netcdf/		5/30/12 11:18:00 AM
sigdr_netcdf_geodetic/		9/8/12 5:14:00 AM

ftp://podaac.jpl.nasa.gov/allData/jason1/L2/



Ways to access and find information on datasets

Measurement: Sea Surface Topography

Name	Temp Res	Spatial Res	Region	Start	Stop	Process Level	Sensors	Format
ALT_TIDE_GAUGE_L4_OST_SLA_US_WEST_COAST	7 days	0.25	Eastern Pacific Ocean	1992-Oct-13	Present	4	POSEIDON-2, POSEIDON ALTIMETER, POSEIDON-3	NETCDF
AVISO_L4_DYN_TOPO_1DEG_1MO	1 month	1	Global	1992-Sep-30	2010-Dec-29	4	ENVISAT RA-2, POSEIDON-2, JMR, TOPEX ALTIMETER, POSEIDON ALTIMETER, TOPEX MICROWAVE RADIOMETER, ERS-1 ALTIMETER, ERS-2 Altimeter, POSEIDON-3, AMR, GRACE ACC, GRACE SCA, GRACE KBR	NETCDF
CRYOSAT2_L2_OST_IGDR		undefined	Global	2011-Jan-28	Present	2	LRA, DORIS, SIRAL	NETCDF
ENVISAT_L3_OST_FGDRSSHA	30 day repeat cycle	undefined	Global	2011-Jul-1	Present	3	ENVISAT RA-2, MWR	NETCDF
GEOS-3_ALT_GDR	1 Month	undefined	Global	1975-Apr-13	1978-Dec-1	2	GEOS-3 ALTIMETER	RAW
JASON-1_GDR_NETCDF	10 day repeat cycle	undefined	Global	2002-Jan-14	Present	2	POSEIDON-2, JMR, DORIS	NETCDF
JASON-1_GDR_SSHA_NETCDF	10 day repeat cycle	undefined	Global	2002-Jan-14	Present	2	POSEIDON-2, JMR	NETCDF
JASON-1_IGDR	10 day repeat cycle	undefined	Global	2002-Jan-14	Present	2	POSEIDON-2, JMR	RAW
JASON-1_IGDR_GEODETIC	11 day repeat cycle	undefined	Global	2012-May-4	Present	2	POSEIDON-2, JMR	RAW
JASON-1_IGDR_NETCDF	10 day repeat cycle	undefined	Global	2008-May-27	Present	2	POSEIDON-2, JMR	NETCDF
JASON-1_IGDR_NETCDF_GEODETIC	11 day repeat cycle	undefined	Global	2012-May-7	Present	2	POSEIDON-2, JMR	NETCDF
JASON-1_IGDR_SSHA_NETCDF	10 day repeat cycle	undefined	Global	2008-May-27	Present	2	POSEIDON-2, JMR, TRSR, DORIS	NETCDF
JASON-1_IGDR_SSHA_NETCDF_GEODETIC	11 day repeat cycle	undefined	Global	2012-May-7	Present	2	JMR, POSEIDON-2, TRSR, DORIS	NETCDF
JASON-1_JMR_ENH	10 day repeat cycle	undefined	Global	2002-Jan-14	Present	2	JMR	NETCDF

PO.DAAC
PHYSICAL OCEANOGRAPHY
DISTRIBUTED ACTIVE ARCHIVE CENTER

http://podaac.jpl.nasa.gov/dataaccess

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FTP | OPeNDAP | THREDDS | SOTO (State of the Ocean) | POET (L3 Subsetting) | PO.DAAC LABS | GCMD | Reverb

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DATA ACCESS

PROTOCOLS

FTP Site

Most of PO.DAAC's data products are accessible via our anonymous FTP server, ftp://podaac-ftp.jpl.nasa.gov/

OPeNDAP

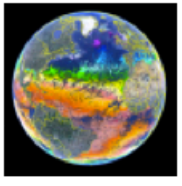
OPeNDAP enables remote data sets to be accessed through familiar data analysis and visualization packages, just as if they resided locally on the user's machine. OPeNDAP handles transport, translation and subsetting of data residing in most Earth science data formats. For a list of PO.DAAC data accessible through OPeNDAP, see PO.DAAC OPeNDAP data. For the complete list of OPeNDAP Datasets, please see the Unidata OPeNDAP Datasets list.

OPeNDAP data are accessible to users through: MATLAB, IDL, Ferret, Live Access Server.

THREDDS

The THREDDS (Thematic Realtime Environmental Distributed Data Services) project is developing middleware to bridge the gap between data providers and data users. The goal is to simplify the discovery and use of scientific data and to allow scientific publications and educational materials to reference scientific data.

VISUALIZATION



Current State of the Ocean

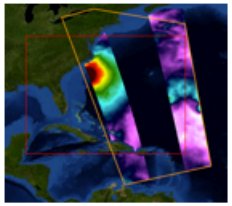
Current State of the Ocean provides near real-time data that gets diplayed on a virtual globe and is annotated to give context descriptions of the ocean's features and events, kml overlays (ice extent, hurricane tracks, clouds). It also provides data layers for Sea Surface Temperature (SST), wind vectors, and ocean color.

http://podaac.jpl.nasa.gov/podaac_labs

PO.DAAC LABS

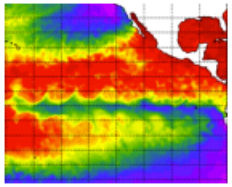
Explore New Ideas, Prototypes and Tools.
Offer feedback directly to the engineers who developed them.

You can reach us by email at: podaac@podaac.jpl.nasa.gov



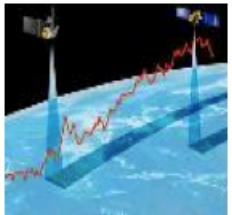
PO.DAAC HITIDE (Subsetter) *Beta*

The **HI**gh-level **T**ool for **I**nteractive **D**ata **E**xtraction (**HITIDE**) is a web-based interface facilitating the search, imaging, and extraction of select Level 2 "swath" data products from PO.DAAC's archive. It is slated to be the eventual successor to Dataminer and is based upon a set of web services that are to be publicly exposed to the public by May 2012. The current beta version of the tool is being made available to the general public for review, and comments are encouraged.



PO.DAAC Live Access Server (LAS) v7.3

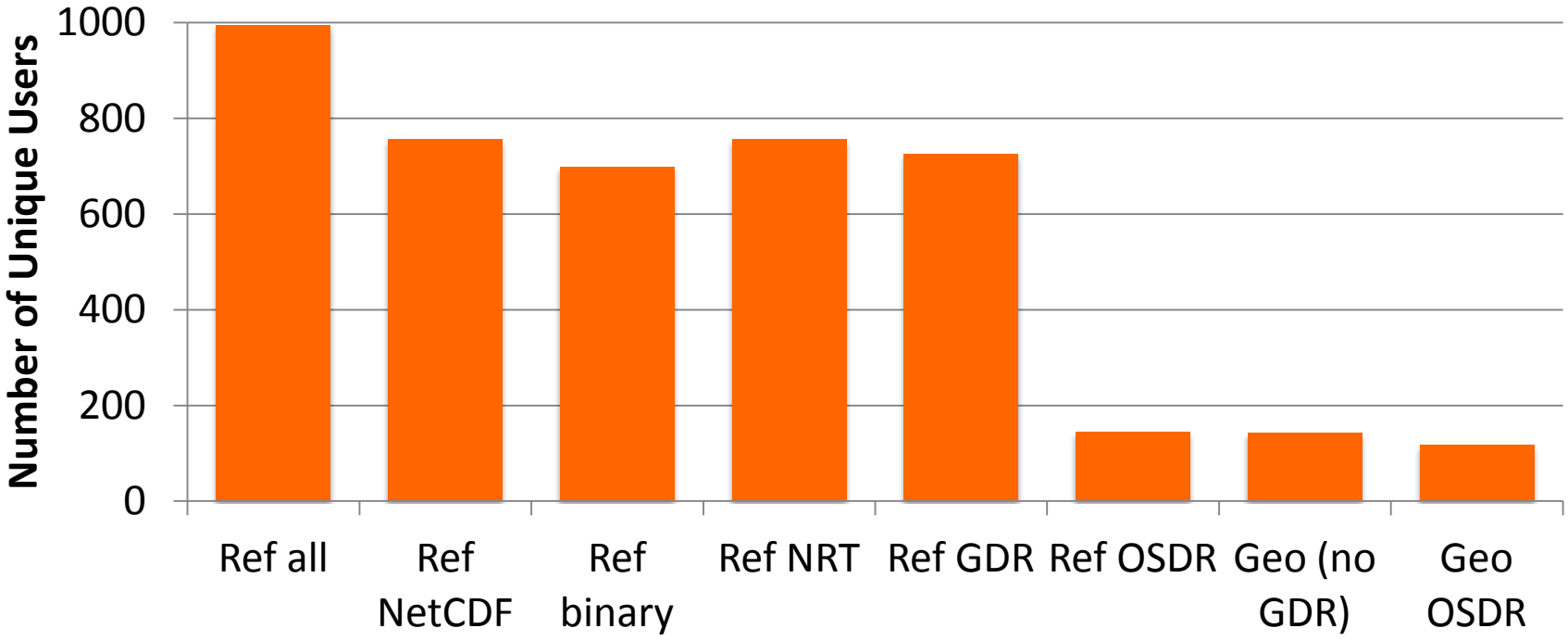
The **L**ive **A**ccess **S**erver (**LAS**) enables the web user to: visualize data withon-the-fly graphics; request custom subsets of variables in a choice of file formats; access background reference material about the data (metadata); compare (difference) variables from distributed locations. LAS is a highly configurable web server designed to provide flexible access to geo-referenced scientific data.



NASA ACCESS-sponsored Web-based Altimetry Service

Altimeter data have become a standard tool in ocean modeling and climate investigations. Altimeter measurements consist of many components in order to arrive at the desired Sea Surface Height (SSH), SSH Anomaly (SSHA), difference of current measurement from a long term Mean Sea Surface (MSS), or Ocean Surface Topography (difference of SSH from the geoid). We are developing a web-based system to allow updating and subsetting of altimeter data.

May-September 2012	Number of Users	Number of Files
Jason-1 Reference all	994	2256998
Jason-1 Reference NetCDF	756	610275
Jason-1 Reference binary	699	968998
Jason-1 Reference NRT	756	610275
Jason-1Reference GDR	726	498167
Jason-1 Reference OSDR	144	692022
Jason-1 Geodetic (no GDR)	143	41440
Jason-1 Geodetic OSDR	117	11289



Conclusions

New Geodetic Datasets

Not many geodetic users users compared to Reference orbit users

Number of users for Reference and Geodetic OSDRs similar, meteorological use unaffected by orbit change

http://podaac.jpl.nasa.gov

podaac@podaac.jpl.nasa.gov