



# PO.DAAC

PHYSICAL OCEANOGRAPHY DAAC



# Status Update on PO.DAAC's OVW Products and Services

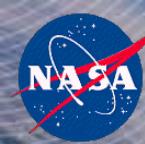
David Moroni

[David.F.Moroni@jpl.nasa.gov](mailto:David.F.Moroni@jpl.nasa.gov)

Jet Propulsion Laboratory

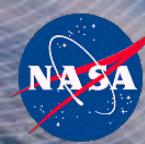
California Institute of Technology, Pasadena, CA

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Government Sponsorship Acknowledged



# The Physical Oceanography Distributed Active Archive Center (PO.DAAC)

- We provide data, tools, and user services for physical ocean parameters including:  
Circulation/Currents, Gravity, OVW, Salinity, and Sea Surface Temperature.
- One of 12 NASA-sponsored DAACs
- Designated archive for many NASA EOS missions:  
Aquarius (June 2011), GRACE, Jason-1, NSCAT, SEASAT, SeaWinds on QuikSCAT/ADEOS-II.
- Additional archive for partner missions and value-added products: AVHRR, GHRSST, MODIS, OSCAT, SSM/I, Pathfinder, TOPEX/Poseidon, and WindSat.



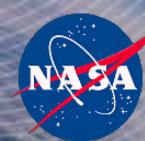
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## New Tools, Services, and Features

- New Web Portal: <http://podaac.jpl.nasa.gov>
  - Fully operational since April 2011
  - Most “Old” web pages are no longer available.
  - QuikSCAT Known Problems and Data Gap Page still available:
    - <http://podaac.jpl.nasa.gov/OceanWind/QuikSCAT/>
- New FTP Layout: Note: Old FTP site no longer available
- THREDDS Data Server
- Live Access Server (LAS)
- Beta Level 2 Subsetter: QuikSCAT and ASCAT
- POET 2.0



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## PHYSICAL OCEANOGRAPHY DAAC

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DISTRIBUTED ACTIVE ARCHIVE CENTER

HOME DATASET DISCOVERY DATA ACCESS MEASUREMENTS MISSIONS MULTIMEDIA USER COMMUNITY HELP FORUM

BROWSE DATASETS

- Parameter
- Collections
- Platform
- Sensor
- Spatial Coverage
- Latency

To browse for datasets, select a starting category from the left

SEARCH FOR DATASETS:  Enter Dataset Keyword

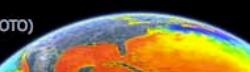
**OCEAN STORIES**

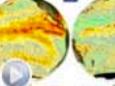
  
  
Warming off the Peruvian Coast:  
Potential Consequences and Implications  
(May, 2012)

**DATA ACCESS TOOLS & SERVICES**

PROTOCOLS   
FTP | OPeNDAP | THREDDS

EXPLORE NEW IDEAS & PROTOTYPES  
PO.DAAC LABS | AQUARIUS L3 Image Browser Tool

**VISUALIZATION**  
State of the Ocean (SOTO)  


**ANIMATION & IMAGES**  
  
Check out PO.DAAC's latest animation and images.

**PO.DAAC SERVICES & TEAM**  
  
Find answers to your questions.  
Learn more about PO.DAAC Services and team.

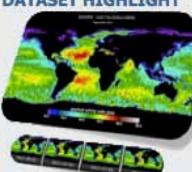
**EOSDIS**  
  
PO.DAAC is one of NASA's Earth Observing System Data and Information System Data Centers.

**FUN FACT**  
  
The Monterey Bay Submarine Canyon is deeper and larger in volume than the Grand Canyon.

**EVENTS**  
ESIP Federation Summer Meeting  
2012-07-17 | Madison, Wisconsin  
  
International Ocean Vector Wind  
Science Team (IOVWST) Meeting  
2012-06-12 | Utrecht, Netherlands  
  
GHRSSST XIII Science Team Meeting  
2012-06-04 | Tokyo, Japan

**ANNOUNCEMENTS**  
Extension of CCMP Ocean Vector Wind Climate Data Record  
Tuesday, May 22, 2012  
  
Jason-1 Geodetic Mission  
Monday, May 14, 2012  
  
GHRSSST GOES-15 SST L2P data now available  
Thursday, May 10, 2012

**LEARN ABOUT**  
Gravity  
Ocean Currents & Circulations  
Ocean Surface Topography  
Ocean Wind  
Salinity  
Sea Surface Temperature

**DATASET HIGHLIGHT**  
  
Aquarius Level 3 data is now available at the PO.DAAC.  
February 17, 2012  
  
Aquarius Level 3 data is now available at the PO.DAAC. Level 3 data are gridded onto a 1 degree x 1 degree grid. Both salinity and wind speed are available in daily, 7day, monthly, and seasonally averaged files. The data should continue to be used for evaluation purposes only.



## Web Portal Features:

- Monthly Updated Ocean Stories
- Tools and Services
- State of the Ocean
- Dataset Keyword Search
- Dataset Faceted Search
- Events
- Announcements
- Dataset Highlights



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<http://podaac.jpl.nasa.gov/OceanWind/QuikSCAT/>

Home > Measurements > Ocean Wind > QuikSCAT >

## SEAWINDS ON QUIKSCAT KNOWN PROBLEMS

<b>Mission Status and QA Reports</b>	Mission Status and QA Reports are available via FTP at <a href="ftp://podaac-old.jpl.nasa.gov/pub/ocean_wind/quikscat/mission_status_rep....">ftp://podaac-old.jpl.nasa.gov/pub/ocean_wind/quikscat/mission_status_rep....</a> All files are in tar format.
<b>Data Gaps</b>	<a href="#">Click here to view the table listing all L2B data gaps longer than 4 seconds.</a>
<b>Level 2A Issues</b>	<b>12 June 2000:</b> Near 66.6° South Latitude and 359.0° East Longitude approximately 12-15 pixels are being reported as land instead of ice. The ice mask will be fixed in upcoming data.
<b>Level 2B Issues</b>	<p><b>Level 2B Usage Notes: 23 July 1999 - present; revs 430-present</b></p> <p>The Level 2B wind vectors have been processed with the new QSCAT-1 model function, developed by M. Freilich and B. VanHoff. The mean model coefficients [A(0)] have been tuned specifically to induce a mean speed bias relative to numerical weather prediction winds of about +0.3 m/s, addressing the observed wind speed under-prediction problem inherent in the NWP products. The reference height for the QuikSCAT wind vectors remains at 10 meters. Furthermore, the azimuthal modulation of the QSCAT-1 model has been tuned to remove, as far as possible, systematic instrument-induced direction errors ("beam spikes" and "square circulations").</p> <p>The Level 2B product includes two additional scientific data set (SDS) elements, the "mp_rain_probability" and the "nof_rain_index", to indicate the detection of rain contamination in the QuikSCAT data.</p> <p>For all wind vector cells, the mp_rain_probability element contains a value between 0 and 1 based on an extended version of the Multi-Parameter rain algorithm developed by J. Huddleston and B. Stiles at JPL. Cells for which the algorithm could not compute a valid value contain the value -3. Additionally, bit 12 of the "wvc_quality_flag" indicates whether the MP algorithm computation was valid (0) or invalid (1), and bit 13 indicates whether rain was detected (1) or not detected (0) by the algorithm. Bit 14 of the wvc_quality_flag indicates whether the rain detection is based on data from both beams (0) or from outer-beam measurements only (1).</p> <p>The nof_rain_index is a value ranging from 0-249, with 250 as the "invalid" value, based on the Expected Normalized Objective Function (ENO) algorithm developed by C. Mears, D. Smith, and F. Wentz at Remote Sensing Systems.</p> <p>The Level 2B product includes two additional scientific data set (SDS) elements, the "wind_speed_selection" and the "wind_dir_selection". These elements contain the final output of the wind retrieval/ambiguity removal processing using the Direction Interval Retrieval with Threshold Nudging (DIRTH) algorithm.</p>
<b>L3 issue</b>	<b>25 July 2002:</b> The Level 3 data files on the CD are compressed using HDF's internal gzip compression. Characteristics: <ul style="list-style-type: none"><li>• The reduced file size (~80%) allow 3 months to fit on a CD.</li><li>• Programs that read L3 data may run slower but need no changes.</li><li>• Programs built using HDF version 4.1r2 may crash when reading these data. Versions 4.1r3 and above fixed this bug.</li></ul>
<b>Spacecraft and Instrument</b>	<a href="#">Click here to view the table listing</a>



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<ftp://podaac.jpl.nasa.gov/allData/>

## Index of <ftp://podaac.jpl.nasa.gov/>

[Up to higher level directory](#)

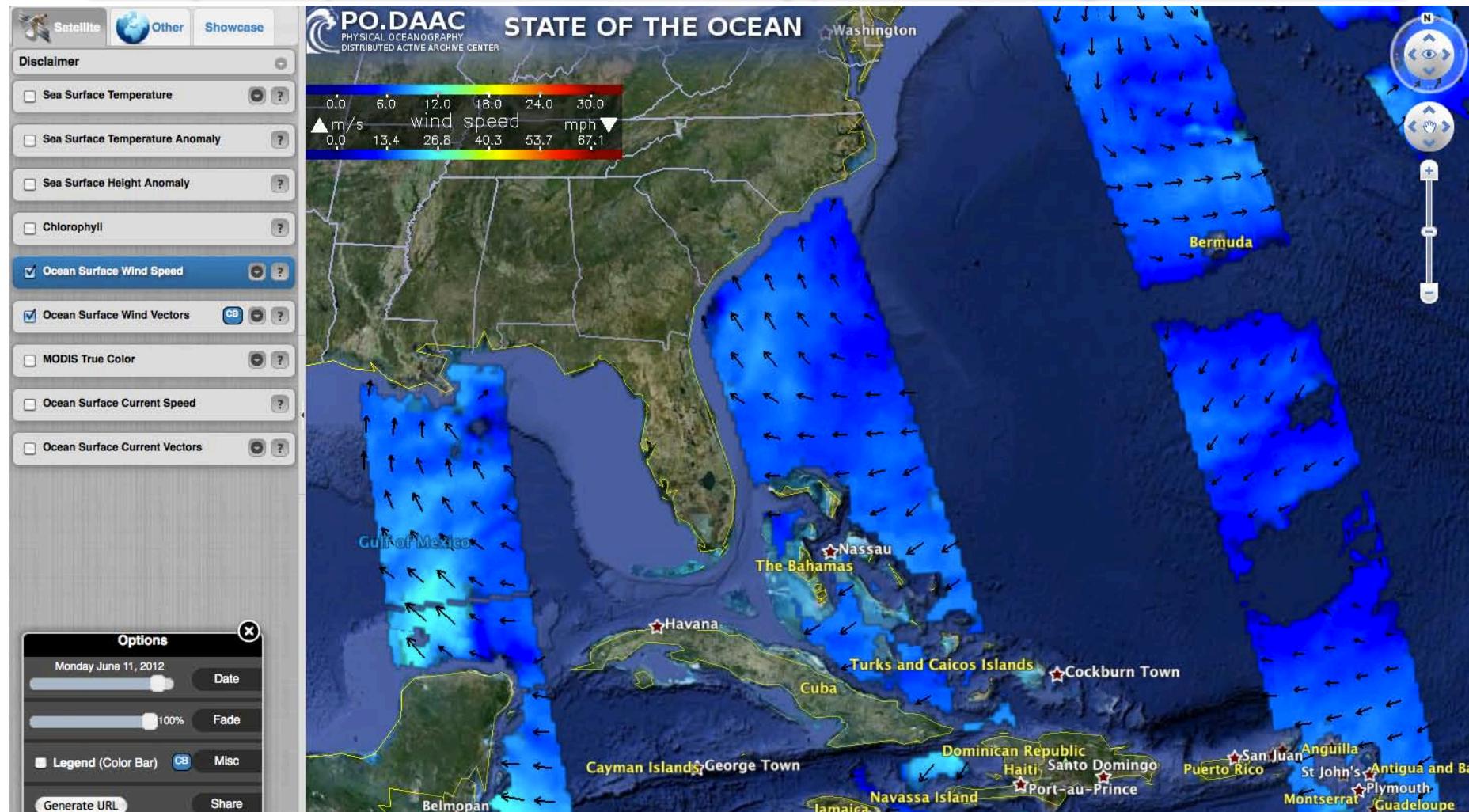
Name	Size	Last Modified
<a href="#">GeodeticsGravity</a>		7/28/11 12:00:00 AM
<a href="#">OceanCirculation</a>		7/28/11 12:00:00 AM
<a href="#">OceanTemperature</a>		4/25/12 9:09:00 AM
<a href="#">OceanWinds</a>		4/25/12 1:50:00 PM
<a href="#">README</a>	2 KB	10/25/11 12:00:00 AM
<a href="#">README.txt</a>	1 KB	10/25/11 12:00:00 AM
<a href="#">SalinityDensity</a>		7/28/11 12:00:00 AM
<a href="#">SeaSurfaceTopography</a>		7/28/11 12:00:00 AM
<a href="#">allData</a>		5/16/12 11:57:00 AM
<a href="#">misc</a>		10/7/11 12:00:00 AM



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<http://podaac-tools.jpl.nasa.gov/soto/>

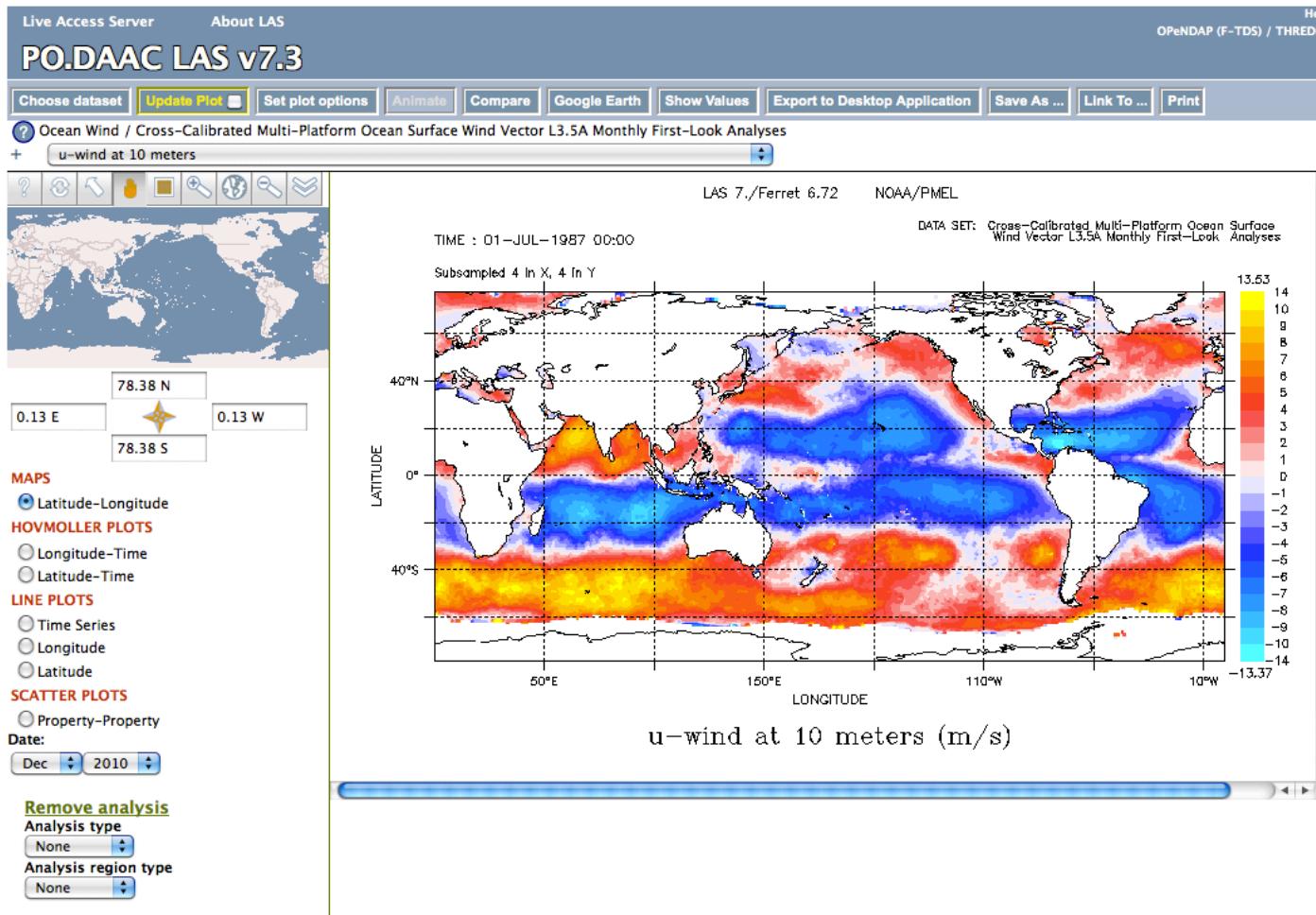


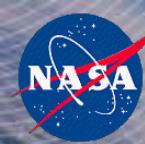


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<http://thredds.jpl.nasa.gov/las>





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<http://podaac-tools.jpl.nasa.gov/hitide>

**PO.DAAC Subsetter**  
PHYSICAL OCEANOGRAPHY  
DISTRIBUTED ACTIVE ARCHIVE CENTER *Beta*

Version 1.1.0

**Filters**

- DataSets  ASCAT-L2-25km
- Region  (-180, -89) to (179, 90)
- DateRange  Entire Range

**Legend**

25.00
22.50
20.00
17.50
15.00
12.50
10.00
7.50
5.00
2.50
0.00

wind\_speed

Units : m s<sup>-1</sup>

**Data Preview**

\* Displaying the first 20 items

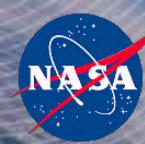
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<input type="checkbox"/>	ascat_20120611_033002_metopa_29287_eps_o_250_2100_ovw.l2.nc	2012-06-11T03:30:02Z	2012-06-11T05:08:56Z	-180 -89.20453	180 88.94935		
<input checked="" type="checkbox"/>	ascat_20120611_014800_metopa_29286_eps_o_250_2100_ovw.l2.nc	2012-06-11T01:48:00Z	2012-06-11T03:29:58Z	13.01778 -8...	355.06644 8...		
<input checked="" type="checkbox"/>	ascat_20120611_000603_metopa_29285_eps_o_250_2100_ovw.l2.nc	2012-06-11T00:06:03Z	2012-06-11T01:47:57Z	-180 -88.58035	180 89.20838		
<input checked="" type="checkbox"/>	ascat_20120610_222402_metopa_29284_eps_o_250_2100_ovw.l2.nc	2012-06-10T22:24:02Z	2012-06-11T00:05:59Z	-180 -88.93996	180 87.6601		
<input checked="" type="checkbox"/>	ascat_20120610_204200_metopa_29283_eps_o_250_2100_ovw.l2.nc	2012-06-10T20:42:00Z	2012-06-10T22:23:58Z	-180 -88.03638	180 89.07935		
<input checked="" type="checkbox"/>	ascat_20120610_190302_metopa_29282_eps_o_250_2100_ovw.l2.nc	2012-06-10T19:03:02Z	2012-06-10T20:41:56Z	-180 -89.34258	180 88.3993		
<input checked="" type="checkbox"/>	ascat_20120610_172101_metopa_29281_eps_o_250_2100_ovw.l2.nc	2012-06-10T17:21:01Z	2012-06-10T19:02:59Z	-180 -87.57737	180 88.49433		
<input checked="" type="checkbox"/>	ascat_20120610_153903_metopa_29280_eps_o_250_2100_ovw.l2.nc	2012-06-10T15:39:03Z	2012-06-10T17:20:57Z	-180 -89.1355	180 89.02204		

[Get Next 10](#) [Download Selected](#) [Download All](#)

**Coverage Preview - displaying Granule Name : ascat\_20120610\_053002\_metopa\_29274\_eps\_o\_250\_2100\_ovw.l2.nc**

Generate Image Preview

(lon,lat) : 91.08° E, 36.24° S



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# New Datasets and Extensions

- ASCAT Level 2 12.5 Coastal-Optimized Dataset
  - near-real-time distribution
  - historical data since August 2010
- CCMP Extension to 30 June 2011, released in May 2012
- QuikSCAT L2B Reprocessed 12.5 km Dataset
  - made publicly available since April 2012
  - remains in evaluation mode
- QuikSCAT L3 Monthly Averaged 1 Degree Global Wind Vector Dataset
- JPL-reprocessed Oceansat-II OSCAT L2B Data
  - available for shared cal/val only
- WindSat
  - GHRSSST Level 3 SST and Wind Vector Product
- David Long:
  - Enhanced Resolution Sigma-0 Datasets completely migrated: SEASAT, NSCAT, QuikSCAT, SeaWinds on ADEOS-II, ERS-1, and ERS-2
  - Local-Time-of-Day Sigma-0 Browse Datasets completely migrated for QuikSCAT and SeaWinds on ADEOS-II



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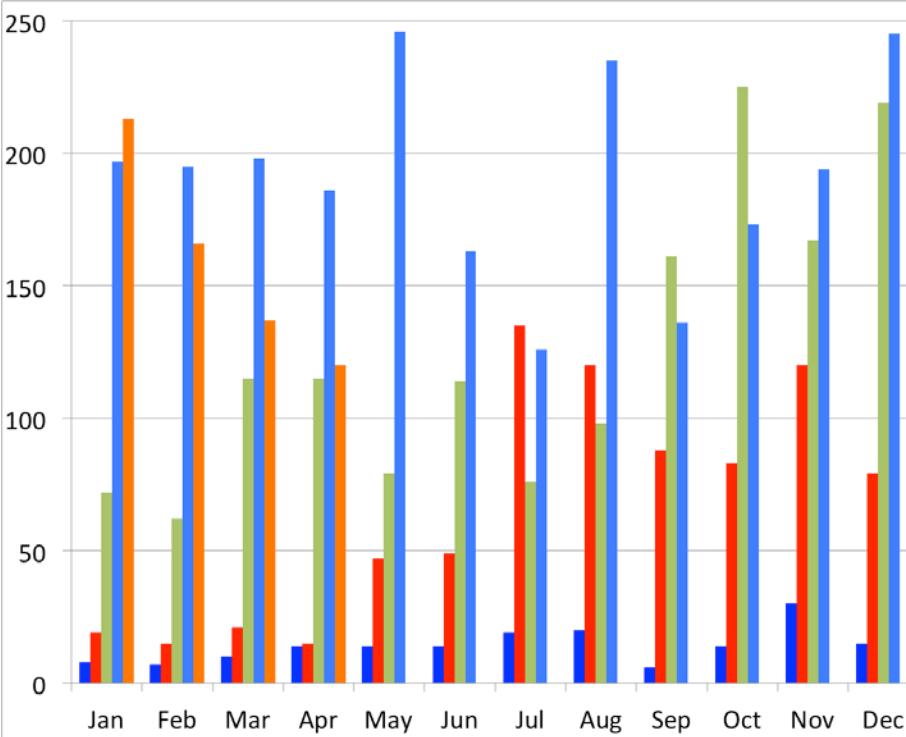
## Datasets in the works

- QuikSCAT:
  - L2C: JPL wind vectors with derivative fields at 12.5 km sampling using spatial filtering and latest L2B GMF and rain flagging (Fall 2012)
  - L3: Daily Gridded Pseudo-stress (Bourassa) on  $1.0^{\circ}$  global grid (awaiting finalization of L2B cal/val)
- ASCAT:
  - L3: OSI-SAF (KNMI) daily wind vectors on  $0.25^{\circ}$  global grid (under development)
  - MetOp-B wind vector datasets (as soon as available)
- WindSat:
  - L3: REMSS non-GHRSST daily wind vectors on  $0.25^{\circ}$  global grid (Fall 2012)
- OSCAT:
  - We hope to be able to distribute ISRO's latest reprocessed L2B datasets
  - Currently we are relying on IOVWST and the JPL QuikSCAT Science team to make this work
  - If there's anything else we can do, we are willing and able

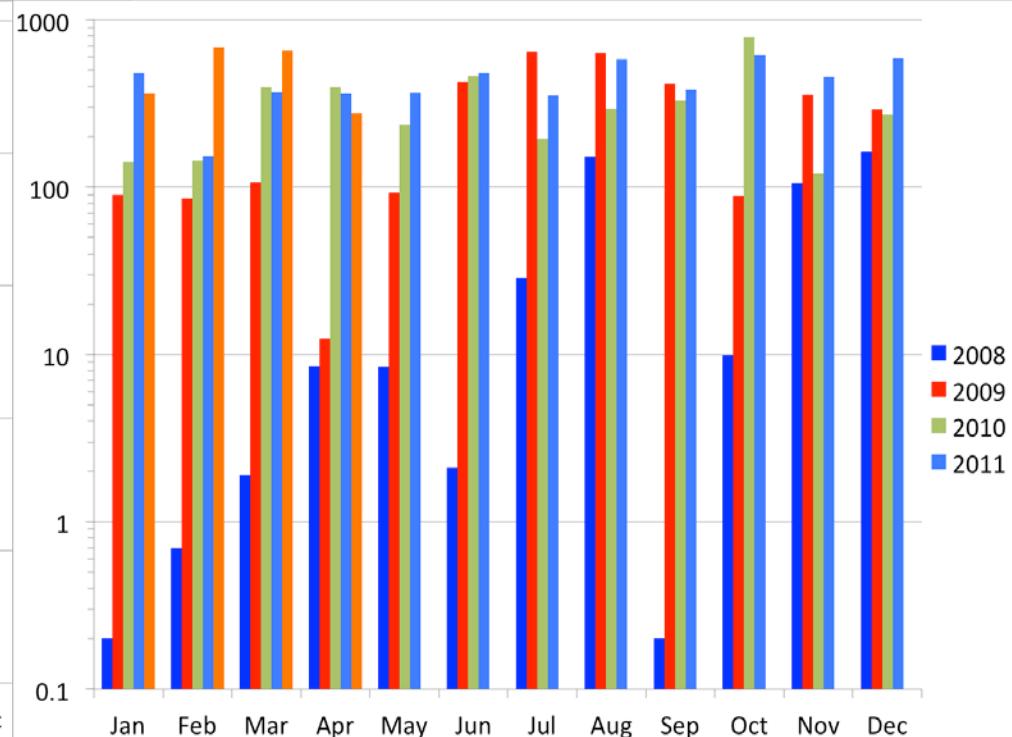


## CCMP Usage Metrics

Unique Users



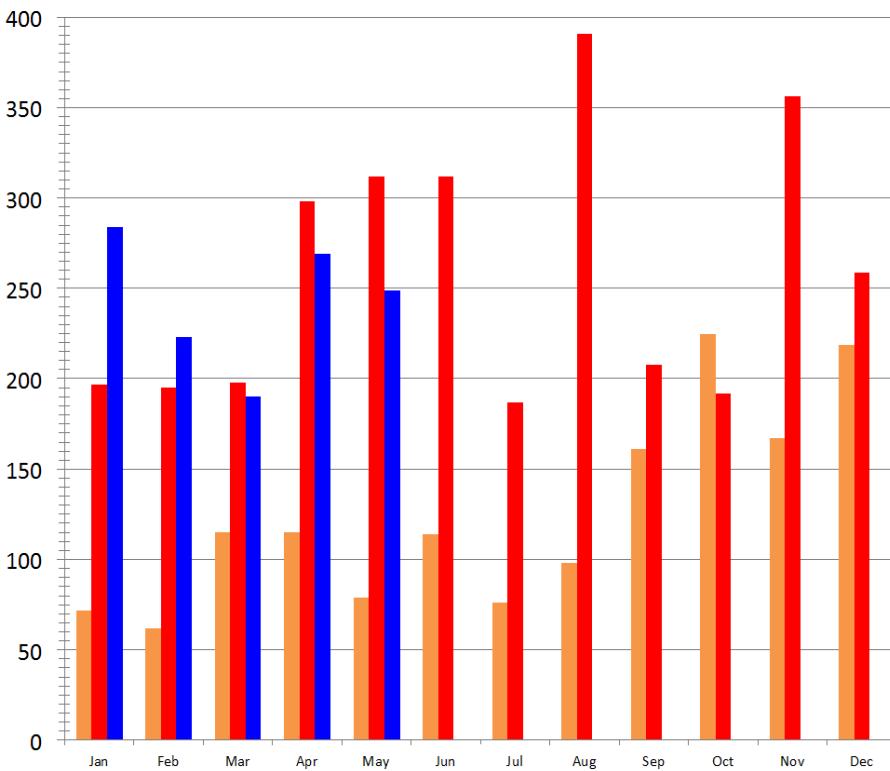
Volume (GB)



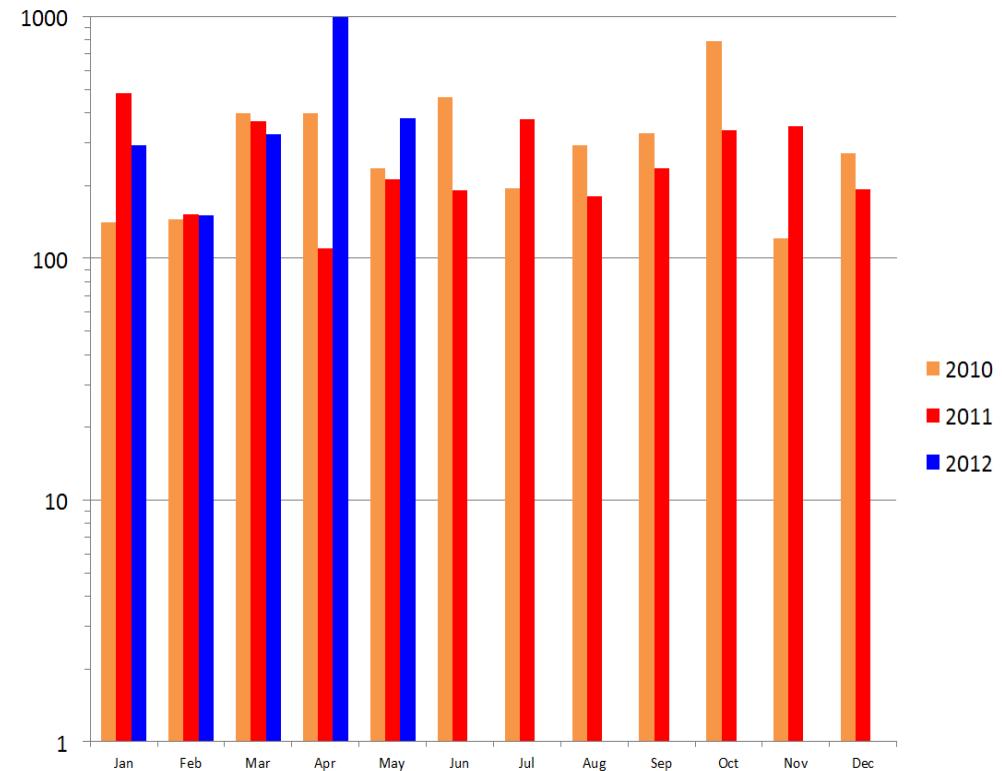


## ASCAT Usage Metrics

Unique Users



Volume (GB)

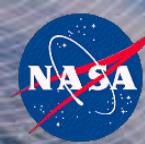




## Measuring Our Success

- Metrics collection:
  - Data ingest and access
  - Data and services usage
  - User satisfaction rates
  - Portal access
  - Search engine ranking
- Reminder: please register your name and email at [podaac@podaac.jpl.nasa.gov](mailto:podaac@podaac.jpl.nasa.gov) in order to receive the annual EOSDIS user satisfaction survey.





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## Science and Technical Support at PO.DAAC

- Dr. Michelle Gierach ([Michelle.Gierach@jpl.nasa.gov](mailto:Michelle.Gierach@jpl.nasa.gov))
  - Lead Project Scientist
  - Primary point-of-contact between all science teams and PO.DAAC (for all parameters).
- Dr. Tong Lee ([Tong.Lee@jpl.nasa.gov](mailto:Tong.Lee@jpl.nasa.gov))
  - Scientist responsible for wind-related topics.
- Mr. David Moroni ([David.F.Moroni@jpl.nasa.gov](mailto:David.F.Moroni@jpl.nasa.gov))
  - Data Engineer and co-investigator for wind and scatterometry datasets and primary point-of-contact between users and data providers.
- Scientists and Data Engineers meet regularly with the aim of collecting and sharing feedback from IOVWST and user communities.



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## Questions?

All scientific/technical inquiries and requests for user registration may be sent to:

**PODAAC@PODAAC.JPL.NASA.GOV**