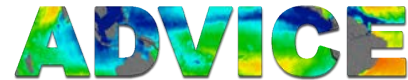


Become Familiar with *Aquarius* Data Resources

Vardis Tsontos

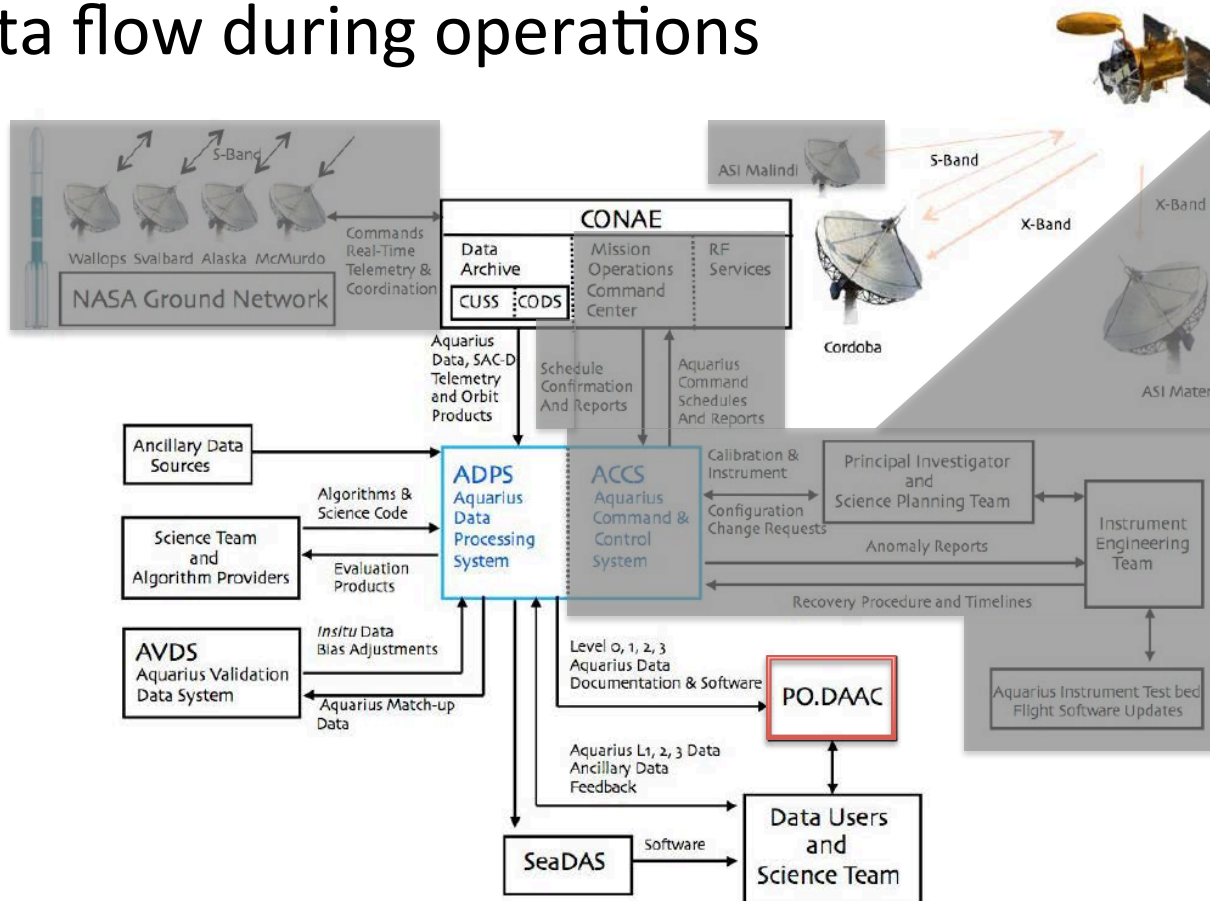
NASA Jet Propulsion Laboratory

PO.DAAC Data Engineer



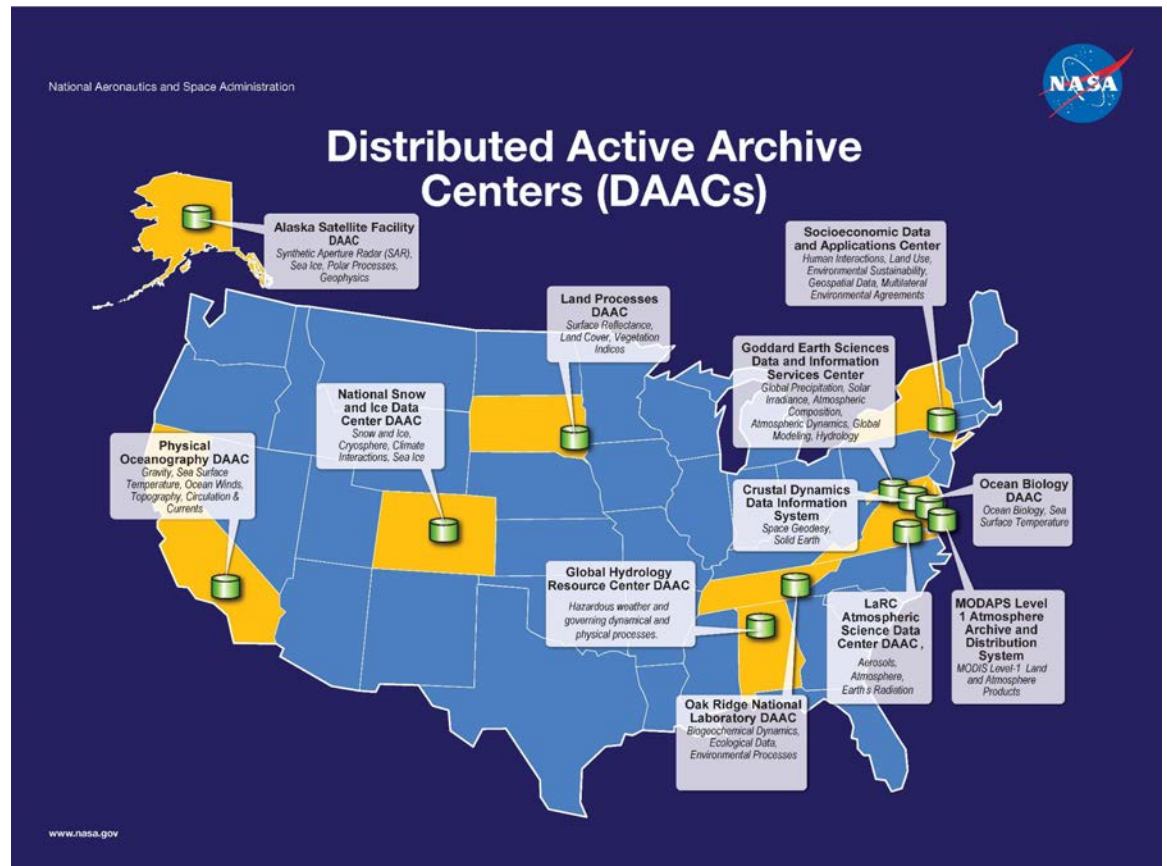
Aquarius Data Flow

- This diagram shows, at a high level, the *Aquarius* data flow during operations



Role of PO.DAAC

- The Physical Oceanography Distributed Active Archive Center (PO.DAAC) is one of 12 NASA DAACs



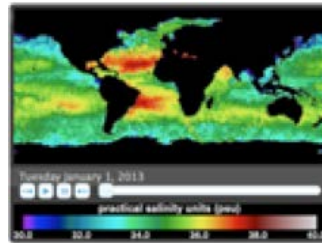
Role of PO.DAAC

- PO.DAAC is NASA's Physical Oceanography data archive, and provides:

Data Management & Stewardship



Data Access



Science Information Services



Questions? Answers.
Visit our: PO.DAAC Forum
or
Email us: podaac@podaac.jpl.nasa.gov

Follow Us:

- FACEBOOK
- YOUTUBE
- TWITTER

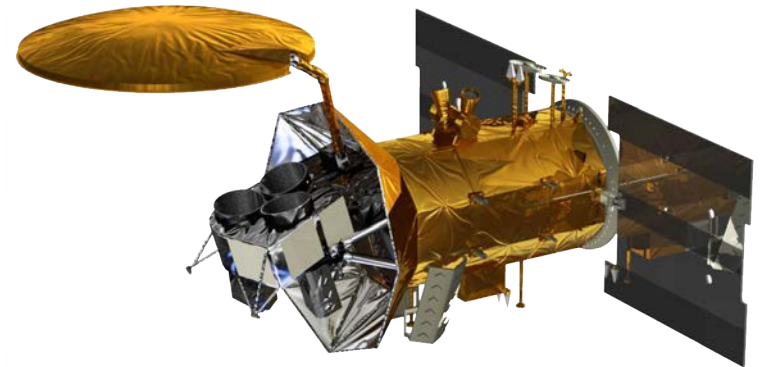


Role of PO.DAAC

- PO.DAAC supports many NASA Missions & Projects
 - *Aquarius* and its complementary field campaign, *SPURS* (*Salinity Processes in the Upper-ocean Regional Study*)

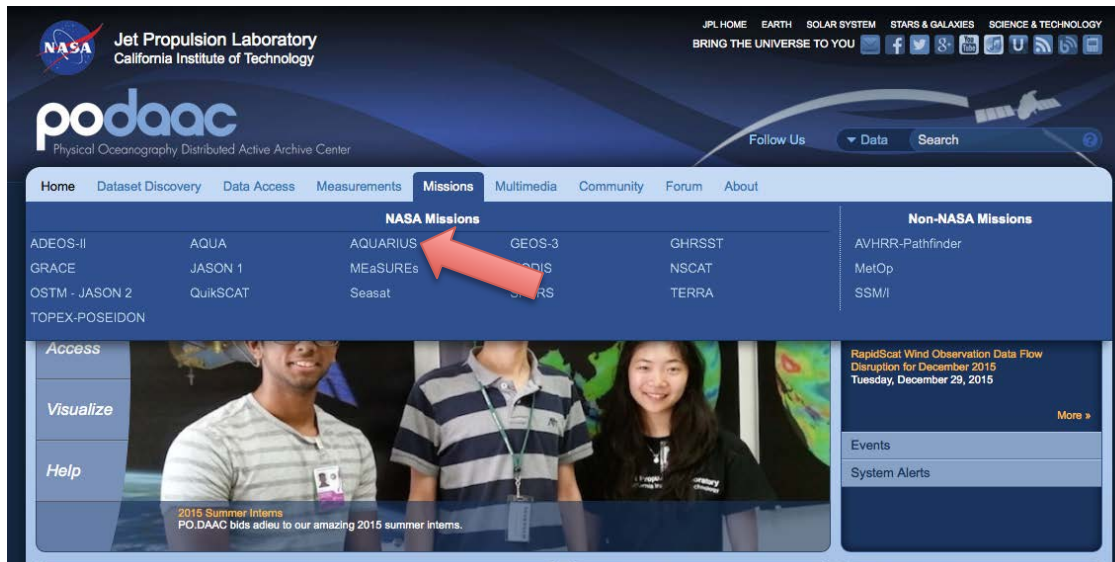
NASA Missions & Projects

Seasat, TOPEX/Poseidon, Jason-1, NSCAT, SeaWinds on ADEOS-II, QuikSCAT, GRACE, GHRST, MEaSUREs, **Aquarius, SPURS**, ISS-RapidScat, CYGNSS (2016), GRACE-FO (2017), SWOT (2020)



Aquarius Mission Page

- The PO.DAAC has specific pages for the missions it supports
 - The *Aquarius* page can be accessed through the "Missions" tab or podaac.jpl.nasa.gov/aquarius



The screenshot shows the PO.DAAC website interface. At the top, it features the NASA logo and the text "Jet Propulsion Laboratory California Institute of Technology". Below this is the "podaac" logo and the tagline "Physical Oceanography Distributed Active Archive Center". A navigation menu includes "Home", "Dataset Discovery", "Data Access", "Measurements", "Missions", "Multimedia", "Community", "Forum", and "About". The "Missions" tab is selected, displaying a list of "NASA Missions" and "Non-NASA Missions". The "NASA Missions" list includes ADEOS-II, AQUA, AQUARIUS, GEOS-3, GHRSS, GRACE, JASON 1, MEaSUREs, MODIS, NDCM, OSTM - JASON 2, QuikSCAT, SeaWiFS, and TERRA. A red arrow points to the "AQUARIUS" entry. The "Non-NASA Missions" list includes AVHRR-Pathfinder, MetOp, and SSM/I. Below the mission lists, there is a section for "Access", "Visualize", and "Help". A banner image shows three people, with a caption: "2015 Summer Interns PO.DAAC bids adieu to our amazing 2015 summer interns." On the right side, there is a "RapidScat Wind Observation Data Flow Disruption for December 2015" announcement dated Tuesday, December 23, 2015, and sections for "Events" and "System Alerts".



Aquarius Mission Page

- Key resources are found under "Technical Documentation"

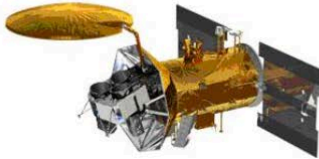
Home » Missions

AQUARIUS

Mission Specification & Status

The Aquarius/SAC-D mission, launched on June 10, 2011, is a joint venture between NASA and the Argentinean Space Agency (CONAE). The mission features the sea surface salinity sensor Aquarius and is the first mission with the primary goal of measuring sea surface salinity (SSS) from space. Data from Aquarius will play a large role in understanding both climate change and the global water cycle.

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News and Announcements

OFFICIAL NASA AQUARIUS/SAC-D VERSION 4.0 END-OF-PRIME-MISSION DATA SET RELEASED

July 17, 2015

The PO.DAAC is pleased to announce the availability of the version 4.0 Aquarius/SAC-D data. This is the official NASA/Aquarius Project end-of-prime-mission dataset spanning the complete 3 year, 9 nine month period of Aquarius science data availability, from August 25, 2011 through June 7, 2015 when an unrecoverable hardware failure caused the end of the mission. This end-of-prime mission dataset does not preclude future reprocessing. An updated version (V5.0) is planned for release in 2016, and subsequent updates will be released when measurable improvements are achieved.

Data sets comprising this release include the Level 2 orbital data and Level 3 mapped salinity, wind speed, and derived density products at 1 degree spatial resolution for ascending, descending and combined passes and for the following time intervals: daily, 7 day, monthly, seasonal, annual. New products (added since V3.0), in addition to Density, include 7-day and 28-day

Data Links

- Browse Datasets for Aquarius Project Data at PO.DAAC
- PO.DAAC FTP Data Access
- Aquarius Soil Moisture Data at NSIDC

PO.DAAC Tools and Services

- FTP
- OPeNDAP
- THREDDS: Salinity/Density, Ocean Winds
- PODAAC-WS
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- LAS
- HITIDE

Technical Documentation

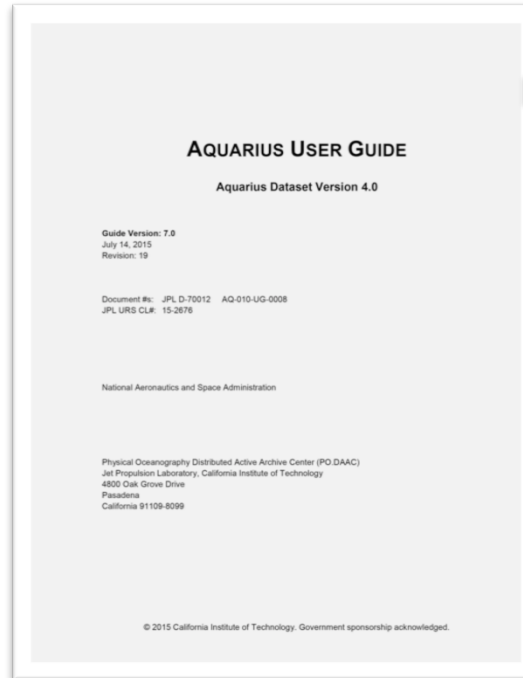
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- L3 smoothing algorithm description (.pdf)

Note: All Aquarius technical documents, including for prior versions, are available here



Aquarius Mission Page

- Key resources are found under "Technical Documentation"
 - "Users Guide" is found at the top of the list
 - This document is updated with each major algorithm update, which is currently Version 4.0 (V4.0)



Technical Documentation

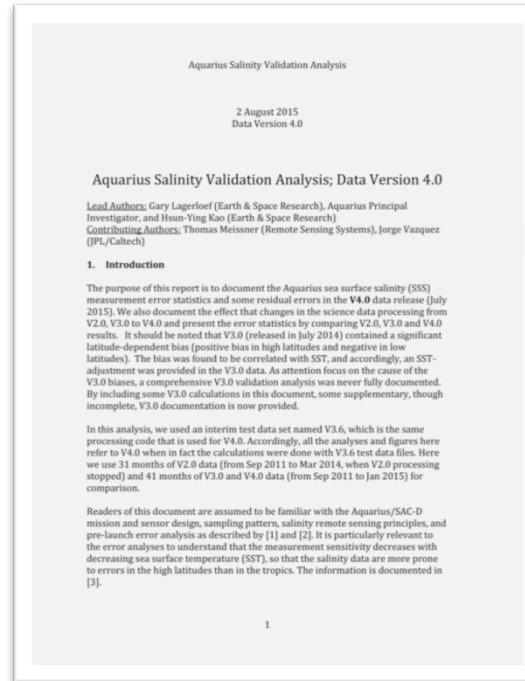
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Aquarius Mission Page

- Key resources are found under "Technical Documentation"
 - "Salinity Validation Analysis"
 - This report documents the *Aquarius* sea surface salinity measurement error statistics and some residual errors in the V4.0 data release



Technical Documentation

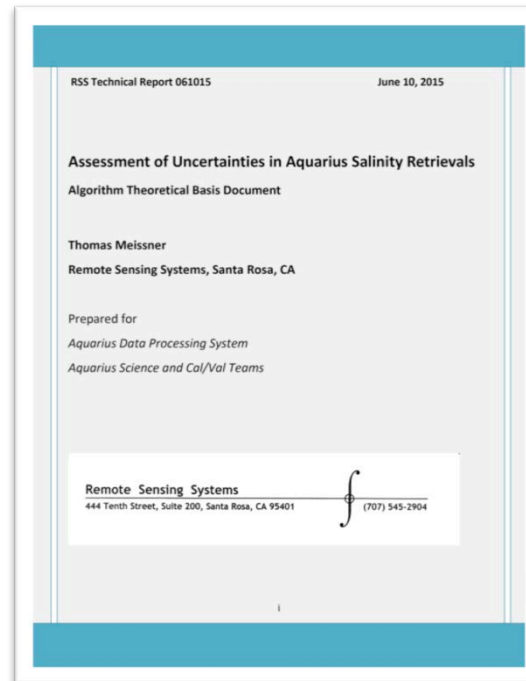
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Aquarius Mission Page

- Key resources are found under "Technical Documentation"
 - "Salinity Uncertainty Estimation"
 - This memo presents a method for formally assessing random and systematic uncertainties in the Aquarius salinity retrievals



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Aquarius Mission Page

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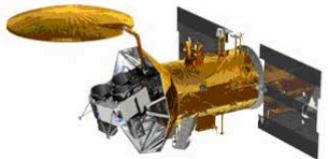
Home » Missions

AQUARIUS

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News and Announcements

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July 17, 2015

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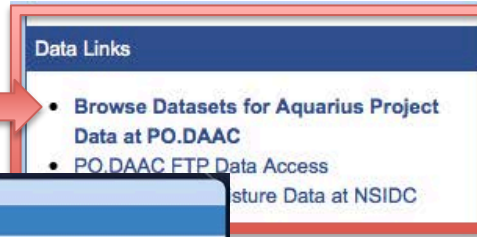
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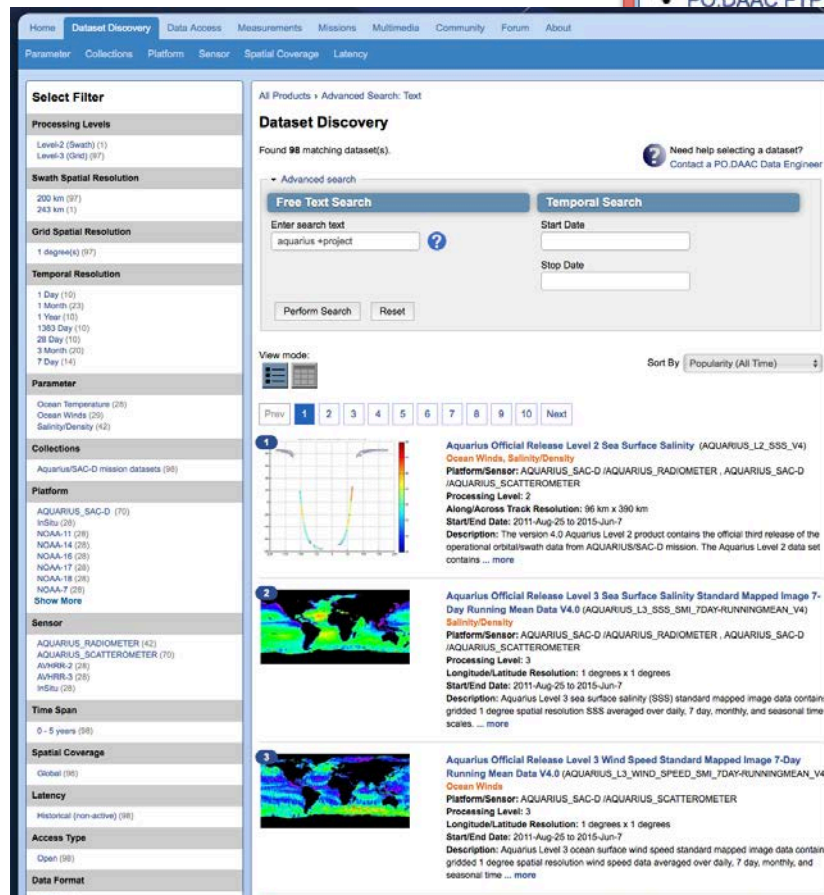


Aquarius Mission Page

- "Data Links" can be found at upper right
 - You can access the catalog of Aquarius products from the "Browse Datasets" link



A blue-bordered box titled "Data Links" containing two bullet points: "Browse Datasets for Aquarius Project Data at PO.DAAC" and "PO.DAAC FTP Data Access". A red arrow points from the "Browse Datasets" link in the text to the first bullet point.



A screenshot of the PO.DAAC Dataset Discovery interface. The page shows a search for "aquarius+project" resulting in 98 datasets. The left sidebar contains filters for Processing Levels, Swath Spatial Resolution, Grid Spatial Resolution, Temporal Resolution, Parameter, Collections, Platform, Sensor, Time Span, Spatial Coverage, Latency, Access Type, and Data Format. The main content area displays a list of datasets with preview images and metadata. The first dataset is "Aquarius Official Release Level 2 Sea Surface Salinity (AQUARIUS_L2_SSS_V4)", and the second is "Aquarius Official Release Level 3 Sea Surface Salinity Standard Mapped Image 7-Day Running Mean Data V4.0 (AQUARIUS_L3_SSS_SM_7DAY-RUNNINGMEAN_V4)".



Aquarius Mission Page

- "Tools and Services" can be found at right
 - In this webinar series, we will address most of these tools and services ✓

Home » Missions

AQUARIUS

Mission Specification & Status

The Aquarius/SAC-D mission, launched on June 10, 2011, is a joint venture between NASA and the Argentinean Space Agency (CONAE). The mission features the sea surface salinity sensor Aquarius and is the first mission with the primary goal of measuring sea surface salinity (SSS) from space. Data from Aquarius will play a large role in understanding both climate change and the global water cycle.

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PO.DAAC Forum

- Visit the forum for FAQs, data recipes and support

The screenshot shows the PO.DAAC Forum website. At the top, the logo for PO.DAAC (Physical Oceanography Distributed Active Archive Center) is displayed. Below the logo is a navigation menu with links for Home, Dataset Discovery, Data Access, Measurements, Missions, Multimedia, Community, Forum, and About. A search bar is located in the top right corner. The main content area is titled "View unanswered posts • View active topics" and shows the current date and time: "It is currently Wed Mar 30, 2016 12:45 pm".

The forum is divided into two sections: "PODAAC FORUMS" and "FREQUENTLY ASKED QUESTIONS".

	TOPICS	POSTS	LAST POST
PODAAC FORUMS			
General Questions	9	14	by podaac Mon Mar 21, 2016 3:37 pm
Data Recipes Programming scripts on how to read, analyze and access PO.DAAC data	9	14	by yiboj Tue Mar 29, 2016 2:13 pm
Data Access Tools and services	16	34	by podaac Mon Mar 28, 2016 11:15 am
Ocean Stories Discussions A forum where our User community can discuss about Ocean Stories we've published in our Web Portal.	14	15	by podaac Wed Feb 10, 2016 11:48 am
FREQUENTLY ASKED QUESTIONS			
General Information FAQ	23	23	by podaac Fri Feb 05, 2016 12:03 pm
User Registration System (URS) FAQ	4	4	by podaac Tue Jul 29, 2014 1:33 pm

On the right side of the forum, there is a search bar with a "Search" button and a link to "Advanced search". Below the search bar is a section for "EOSDIS User Registration System" with links for "URS Home" and "About URS", and buttons for "Login through URS" and "Register with URS". At the bottom right, there is a "Statistics" section showing: "Total posts 280 • Total topics 216 • Total members 88 • Our newest member binghamf".



Aquarius Mission Page

- "User Service Support"

The screenshot displays the Aquarius Mission Page with the following sections:

- Home » Missions**
- AQUARIUS**
- Mission Specification & Status**
 - The Aquarius/SAC-D mission, launched on June 10, 2011, is a joint venture between NASA and the Argentinean Space Agency (CONAE). The mission features the sea surface salinity sensor Aquarius and is the first mission with the primary goal of measuring sea surface salinity (SSS) from space. Data from Aquarius will play a large role in understanding both climate change and the global water cycle.
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- Right Side Links (partial):**
 - salinity data: This is corrected for surface roughness using data from the Aquarius scatterometer.
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The user service support email for PO.DAAC is podaac@podaac.jpl.nasa.gov



PO.DAAC Services & Tools

Aquarius L3 Image Browser

Visualization



Web Portal

Next week's topic!

Services & Tools for Accessing & Subsetting Data *Also have visualization capabilities

Next week's topic!

*** Panoply**
Panoply netCDF, HDF and GRIB Data Viewer

OPeNDAP
OPeNDAP @ Physical Oceanography DAAC

*** Live Access Server**
PO.DAAC LAS v7.3

*** THREDDS Data Server**

Web Services
REST, JSON, RSS, XML, DATACASTING, ISO, GCMD, FGDC

FTP
Index of ftp://podacftp.jpl.nasa.gov/