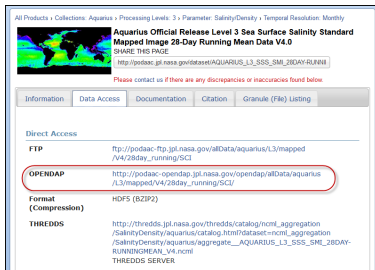


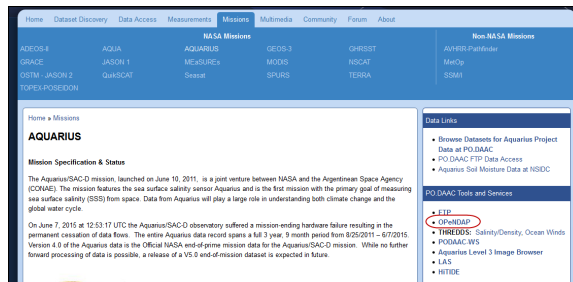
Downloading Files from the PO.DAAC OPeNDAP Server

OPeNDAP stands for **Open-source Project for Network Data Access Protocol**.

There are two places where you can download OPeNDAP files in PO.DAAC,



Data Access Page



Aquarius Mission Page

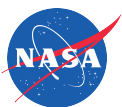
Each page organizes the files differently.

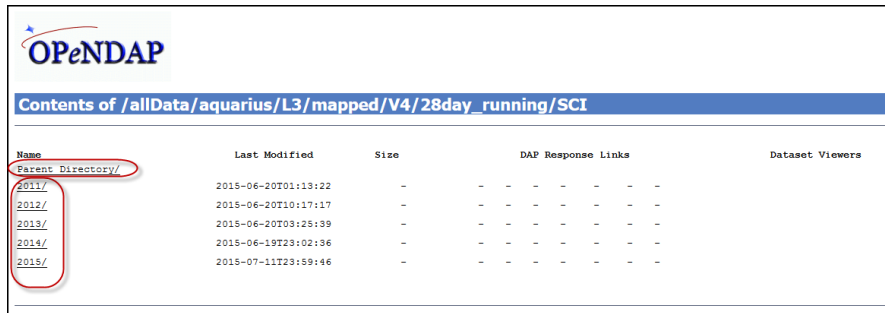
How to Download OPeNDAP Files from the Data Access Page



After you have completed your Data Discovery search,
On the **Data Access** tab
Click the link next to **OPeNDAP**.

Note: Using the Data Discovery function is described in the **How to Access Aquarius Datasets through the PO.DAAC tutorial**.





Name	Last Modified	Size	DAP Response Links	Dataset Viewers
Parent Directory/				
2011/	2015-06-20T01:13:22	-	- - - - -	-
2012/	2015-06-20T10:17:17	-	- - - - -	-
2013/	2015-06-20T03:25:39	-	- - - - -	-
2014/	2015-06-19T23:02:36	-	- - - - -	-
2015/	2015-07-11T23:59:46	-	- - - - -	-

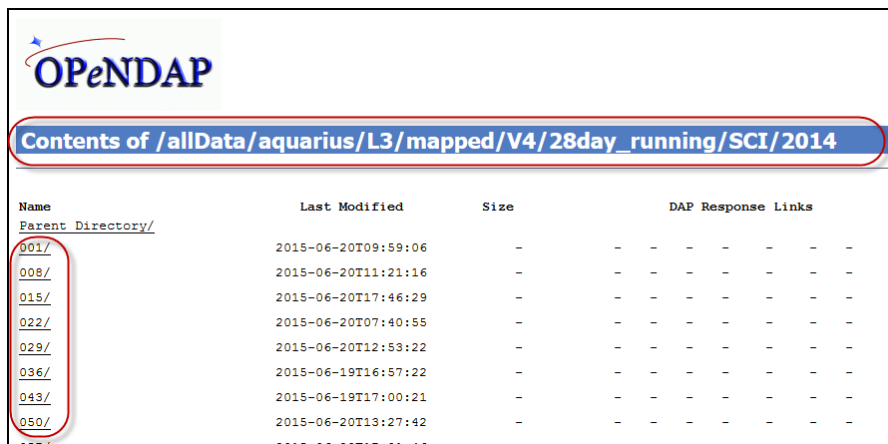
OPeNDAP presents datasets in a hierarchical structure similar to how you might organize files on your computer.

Click the links on the left to access the next level of files.

Click **Parent Directory** to return to the previous level.

You have already selected the specifications of the data you wish to download within Data Discovery, from here the OPeNDAP files are organized by Year and Julian Day. The first level is Year.

The options may vary between datasets. What is shown here is an example.

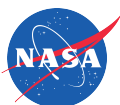


Name	Last Modified	Size	DAP Response Links
Parent Directory/			
001/	2015-06-20T09:59:06	-	- - - - -
008/	2015-06-20T11:21:16	-	- - - - -
015/	2015-06-20T17:46:29	-	- - - - -
022/	2015-06-20T07:40:55	-	- - - - -
029/	2015-06-20T12:53:22	-	- - - - -
036/	2015-06-19T16:57:22	-	- - - - -
043/	2015-06-19T17:00:21	-	- - - - -
050/	2015-06-20T13:27:42	-	- - - - -

The blue bar at the top of each screen shows your location in the file hierarchy. Think of it as your breadcrumb trail of choices you have made.

The second level is organized by Julian Day or Day Number (e.g., 01 is January 1st and 152 is June 1st).

The day number is the first date of data in the file.



Contents of /allData/aquarius/L3/mapped/V4/28day_running/SCI/2014/036														
Name					Last Modified	Size	DAP Response Links			Dataset Viewers				
Parent Directory/														
Q20140362014063.L3m R28 SCI V4.0 SSS 1deg .bz2					2015-06-18T09:07:49	89619	ddx	dds	das	info	html	rdf	file	viewers
Q20140362014063.L3m R28 SCI V4.0 SSS 1deg .bz2.md5					2015-06-18T09:07:49	79	-	-	-	-	-	-	-	
Q20140362014063.L3m R28 SCI V4.0 anc sst 1deg .bz2					2015-06-18T23:53:33	86072	ddx	dds	das	info	html	rdf	file	viewers
Q20140362014063.L3m R28 SCI V4.0 anc sst 1deg .bz2.md5					2015-06-18T23:53:32	83	-	-	-	-	-	-	-	
Q20140362014063.L3m R28 SCI V4.0 density 1deg .bz2					2015-06-18T12:30:08	70703	ddx	dds	das	info	html	rdf	file	viewers
Q20140362014063.L3m R28 SCI V4.0 density 1deg .bz2.md5					2015-06-18T12:30:08	83	-	-	-	-	-	-	-	
Q20140362014063.L3m R28 SCI V4.0 scat wind speed 1deg .bz2					2015-06-19T16:57:22	103214	ddx	dds	das	info	html	rdf	file	viewers
Q20140362014063.L3m R28 SCI V4.0 scat wind speed 1deg .bz2.md5					2015-06-19T16:57:21	91	-	-	-	-	-	-	-	

Click on a file to download.

Inside the Julian Day folder is a list of files of different parameters.

The first part of the file name (after "Q") tells you the file's date range in Julian Day
Year: 2014, Day: 036 (2/5/2014) to Year: 2014, Day: 063 (3/4/2014) = 20140362014063

The end of the file name tells you the **parameter** and **spatial resolution** (e.g., "1deg").

Parameters:

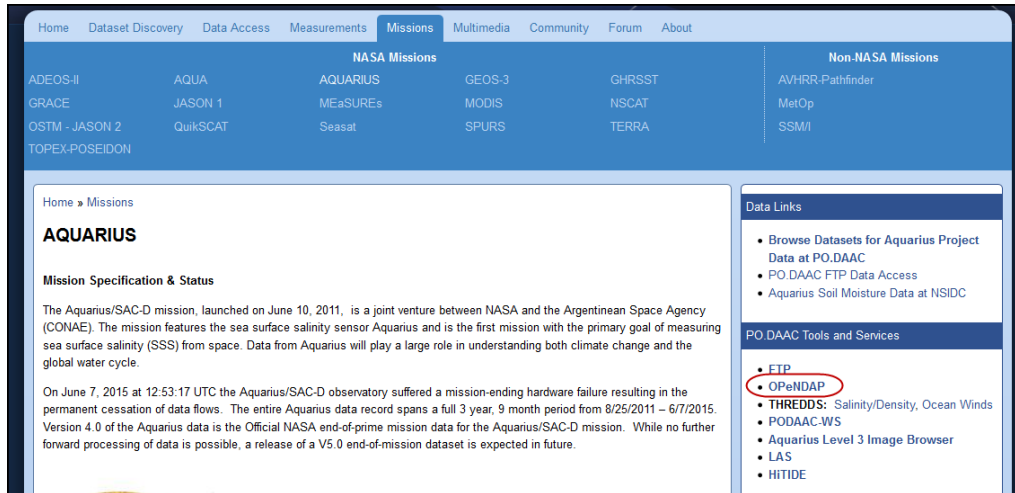
- **SSS** – Sea Surface Salinity
- **scat_wind_speed** – Scatterometer Wind Speed: estimated wind speed at the ocean surface.
- **density** – Sea surface density derived from Aquarius SSS and ancillary SST using TEOS-10 equation of state (McDougall & Barker, 2011).
- **anc_sst** – Ancillary Sea Surface Temperature (data from the National Center for Environmental Prediction)

Note: files in .bz2 are compressed and may require special software to extract the files.

Note: Unlike THREDDS where you can subset the data spatially and temporally, with OPeNDAP you are downloading the file in its entirety. For more information on THREDDS, please see the **Downloading a NetCDF File from the PO.DAAC THREDDS Server** tutorial.



How to Download OPeNDAP Files from the Aquarius Mission Page



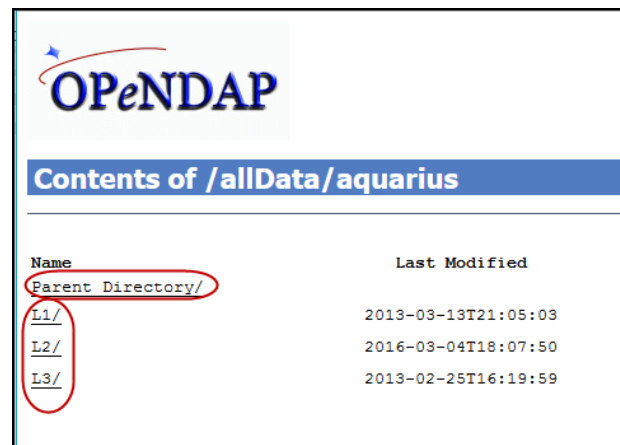
On the **Aquarius Mission** page, click **OPeNDAP**.

Note: The choices shown here illustrate the process you will use to select the file you wish to download, not necessarily the choices that you will make.

OPeNDAP presents datasets in a hierarchical structure similar to how you might organize files on your computer.

Click the links on the left to access the next level of files.

Click **Parent Directory** to return to the previous level.

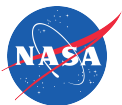


Name	Last Modified
Parent Directory/	
L1/	2013-03-13T21:05:03
L2/	2016-03-04T18:07:50
L3/	2013-02-25T16:19:59

In the "aquarius" folder, OPeNDAP is organized by data processing levels.

You may access data from processing Levels 1-3 (L1/, L2/, L3/).

Note: When you use the Data Access page (described above), only data Levels 2 and 3 are accessible.



Level 0 (L0) products = Raw salinity only

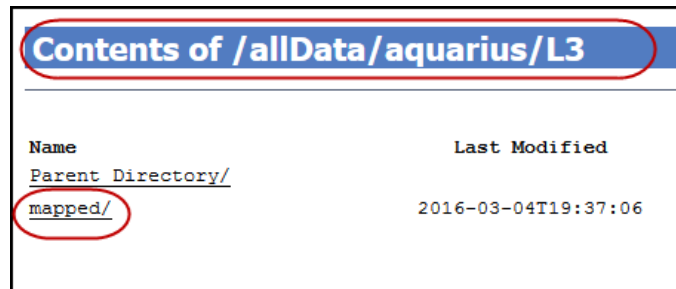
Level 1a (“L1”) products = Raw salinity, navigation and telemetry

Level 2 (L2) swath products = Salinity radiometer, scatterometer, ancillary, flags, converted telemetry, and navigation

Level 3 mapped products (L3) = bin averaged, gridded data of sea surface salinity, density, and wind speed.

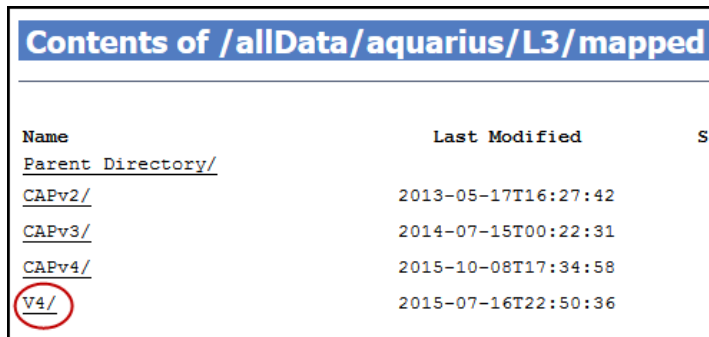
More information on data processing and specifications, please see the **Aquarius Data Users Guide** on the Aquarius mission page:

<https://podaac.jpl.nasa.gov/aquarius>



Name	Last Modified
Parent Directory/	
mapped/	2016-03-04T19:37:06

The blue bar at the top of each screen shows your location in the file hierarchy. Think of it as a breadcrumb trail based on choices that you have made.



Name	Last Modified	Size
Parent Directory/		
CAPv2/	2013-05-17T16:27:42	
CAPv3/	2014-07-15T00:22:31	
CAPv4/	2015-10-08T17:34:58	
V4/	2015-07-16T22:50:36	51

It is recommended that you use the Official Release Aquarius/SAC-D version. In this example, 4.0 data (**V4**).

Other data versions are also included in the OPeNDAP page: the three versions (CAPv2, CAPv3, CAPv4) listed have the Combined Active-Passive algorithm applied to them.



Contents of /allData/aquarius/L3/mapped/V4		
Name	Last Modified	Size
<u>Parent Directory/</u>		
<u>28day_running/</u>	2015-07-16T22:48:18	-
<u>3month/</u>	2015-07-16T22:46:37	-
<u>7day/</u>	2015-07-16T22:45:10	-
<u>7day_running/</u>	2015-07-16T22:47:43	-
<u>annual/</u>	2015-07-16T22:47:00	-
<u>climatology monthly/</u>	2015-07-16T22:49:25	-
<u>climatology seasonal/</u>	2015-07-16T22:50:12	-
<u>cumulative/</u>	2015-07-16T22:50:54	-
<u>daily/</u>	2015-07-16T22:44:28	-
<u>monthly/</u>	2015-07-16T22:46:00	-

The next level in the hierarchy allows for the selection data by time interval.

Note: Time intervals only apply to L3 products

Note: Running averages, climatology, and cumulative time intervals were first made available in version 4.0 data.

Contents of /allData/aquarius/L3/mapped/V4/monthly		
Name	Last Modified	Size
<u>Parent Directory/</u>		
<u>SCI/</u>	2015-06-18T15:00:27	-
<u>SCIA/</u>	2015-06-18T22:11:05	-
<u>SCID/</u>	2015-06-18T15:38:43	-
<u>SCISM/</u>	2015-06-19T07:29:44	-
<u>SCISMA/</u>	2015-06-18T21:35:21	-
<u>SCISMD/</u>	2015-06-19T01:51:55	-

SCI – maps based on all/combined data (no filtering on ascending/descending pass)

SCIA – maps based on data from *ascending* passes only

SCID – maps based on data from *descending* passes only

File names with "SM" (e.g., SCISMA) indicate smoothed salinity averaged monthly.

Note: Ascending data were collected when the Aquarius/SAC-D satellite traveled from south to north, crossing the equator at 6PM local time. Descending data were collected as the satellite traveled from north to south, crossing the equator at 6AM local time.



Contents of /allData/aquarius/L3/mapped/V4/monthly/SCISMD				
Name	Last Modified	Size	DAP Response	
Parent Directory/				
2011/	2015-06-20T09:28:17	-	-	-
2012/	2015-06-20T18:40:32	-	-	-
2013/	2015-06-20T14:26:55	-	-	-
2014/	2015-06-20T17:54:38	-	-	-
2015/	2015-07-12T01:57:03	-	-	-

After you have selected the exact data product of interest, then you will select the year of that data to download.

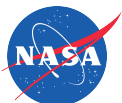
Contents of /allData/aquarius/L3/mapped/V4/monthly/SCISMD/2014				
Name	Last Modified	Size	DAP Response	
Parent Directory/				
Q20140012014031.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-19T00:43:09	83947	ddx	dds das
Q20140012014031.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-19T00:43:09	81	-	-
Q20140322014059.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-20T10:07:20	84109	ddx	dds das
Q20140322014059.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-20T10:07:20	81	-	-
Q20140602014090.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-19T07:57:45	83506	ddx	dds das
Q20140602014090.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-19T07:57:45	81	-	-
Q20140912014120.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-18T17:42:30	82527	ddx	dds das
Q20140912014120.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-18T17:42:30	81	-	-
Q20141212014151.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-18T06:59:00	81386	ddx	dds das
Q20141212014151.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-18T06:59:00	81	-	-
Q20141522014181.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-18T21:41:19	80943	ddx	dds das
Q20141522014181.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-18T21:41:19	81	-	-
Q20141822014212.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-19T23:24:26	81050	ddx	dds das
Q20141822014212.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-19T23:24:26	81	-	-
Q20142132014243.L3m MO SCISMD V4.0 SSS 1deg.bz2	2015-06-18T10:04:56	81768	ddx	dds das
Q20142132014243.L3m MO SCISMD V4.0 SSS 1deg.bz2.md5	2015-06-18T10:04:56	81	-	-

Click on a file to download.

The date range of each file can be determined by looking at the numbers in the beginning of the file name. See "File Name Breakdown" below.

Note: files in .bz2 are compressed and may require special software to extract the files.

Note: Unlike THREDDS where you can subset the data spatially and temporally, with OPeNDAP you are downloading the file in its entirety.



Q20140012014031.L3m MO SCISMD V4.0 SSS 1deg.bz2

File Name Breakdown

20140012014031	Date Range [Year: 2014, Day: 001 (1/1/2014) to Year: 2014, Day: 031 (1/31/2014)]
L3m	Product Level [Level 3 Mapped product]
MO	Frequency Time Interval* [Monthly]
SCISMD	L3 Product Category* [smoothed salinity averaged monthly maps based on data from <i>descending</i> passes only]
V4.0	Aquarius Dataset Version [V4]
SSS	Data Product* [Sea Surface Salinity]
1deg	Spatial Resolution* [1 deg (Lat) x 1 deg (Lon)]

**Only relevant to L3 data*

