

Accessing SASSIE Data from PO.DAAC

A brief guide, using the thermosalinograph
dataset as an example



Dean Henze

NASA Jet Propulsion Laboratory, California Institute of Technology
Physical Oceanography Distributed Active Archive Center

SASSIE PO.DAAC project landing page and list of available datasets

From the PO.DAAC web portal: <https://podaac.jpl.nasa.gov/>

The screenshot shows the PO.DAAC website home page. The navigation bar includes 'HOME', 'FIND DATA', 'ACCESS DATA', 'RESOURCES', 'ABOUT', 'HELP', and 'CLOUD DATA'. The 'FIND DATA' link is circled in red and labeled with a '1'. Below the navigation bar, there are sections for 'SCIENCE DISCIPLINES', 'MEASUREMENTS', and 'MISSIONS'. The 'MISSIONS' section lists various projects, with 'SASSIE' circled in red and labeled with a '2'.

Scroll down to the DATA tab for a list of links to datasets

The screenshot shows the SASSIE project landing page. The 'DATA' tab is selected, showing a list of 13 matching datasets. A red arrow points from the 'SASSIE' link in the previous screenshot to the 'DATA' tab.

| Dataset Name | Processing Level | Start/Stop | Format |
|--|------------------|----------------------------|----------|
| SASSIE Arctic Field Campaign Drifter Hydrography Data Fall 2022 Version 1 | 2 | 2022-Sep-09 to 2023-Mar-14 | netCDF-4 |
| SASSIE Arctic Field Campaign L1 SWIFT Data Fall 2022 | 1 | 2022-Aug-01 to 2022-Oct-31 | tar.gz |
| SASSIE Arctic Field Campaign L1 Wave Glider Data Fall 2022 | 1 | 2022-Aug-01 to 2022-Oct-31 | tar.gz |
| SASSIE Arctic Field Campaign Under Ice Float Fall 2022 Version 1 | 2P | 2022-Sep-10 to 2022-Oct-23 | netCDF-4 |
| SASSIE Arctic Field Campaign ALTO/ALAMO Profiling Float Data Fall 2022 Version 1 | 2 | 2022-Sep-08 to 2022-Oct-15 | netCDF-4 |
| SASSIE Arctic Field Campaign Shipboard Delta-18O Data Fall 2022 | 2 | 2022-Sep-09 to 2022-Oct-03 | NetCDF-4 |

SASSIE project page URL: <https://podaac.jpl.nasa.gov/SASSIE?sections=data>

Alternatively, finding SASSIE data using the search bar

PO.DAAC web portal: <https://podaac.jpl.nasa.gov/> (click on FIND DATA tab at top)

If you know the specific dataset of interested (e.g. the thermosalinograph data)

The screenshot displays the PO.DAAC web portal search interface. The browser address bar shows the URL <https://podaac.jpl.nasa.gov/cloud-datasets?search=sassie tsg>. The navigation menu at the top includes HOME, FIND DATA (circled in red with a '1'), ACCESS DATA, RESOURCES, ABOUT, HELP, and CLOUD DATA. A search bar is located to the right of the navigation menu. The main content area features an 'Advanced search' section with a 'Free Text Search' field (circled in red with a '2') containing the text 'sassie tsg'. Below this field are 'Perform Search' and 'Reset' buttons. To the right of the search field are 'Temporal Search' fields for 'Start Date' and 'Stop Date'. Below the search fields is a 'Capabilities Filter' section (circled in red with a '3') with a 'Download' button and a 'Clear Filter' button. The search results section shows 'Found 1 matching dataset(s)' and lists the dataset: 'SASSIE Arctic Field Campaign Shipboard Thermosalinograph Data Fall 2022 Version 1 (SASSIE_L2_SHIPBOARD_TSG_V1)'. The dataset is associated with 'SALINITY', 'CONDUCTIVITY', and 'OCEAN SALINITY' capabilities. Below the dataset name are links for 'Information', 'Coverage', 'Data Access', 'Documentation', and 'Citation'. The dataset details include 'Version: 1', 'Processing Level: 2', and 'Start/Stop Date: 2022-09-05 to 2022-10-03'. The description states: 'The Salinity and Stratification at the Sea Ice Edge (SASSIE) project is a NASA experiment that aims to understand how salinity anomalies in the upper ocean generated by melting sea ice affect sea surface temperature (SST), stratification, and...'. On the right side of the page, there is a 'Filter by Text' input field, a 'LIST | TABLE' toggle, and a 'Status: COMPLETE' section with a 'Short Name: SASSIE_L2_SHIPBOARD_TSG_V1' and 'Collection Concept ID: C2624105045-POCLOUD'. An 'Image Not Available' placeholder is also visible.

Alternatively, finding SASSIE data using the search bar

Or if you don't know the specific data set, but want to find SASSIE data with certain variables/characteristics, use the filtering options.

The screenshot displays the NASA Podaac website's search interface. The URL in the browser is <https://podaac.jpl.nasa.gov/cloud-datasets?ds=Keywords%3AInstruments&values=Oceans%3AOcean%20Temperature%3A%3ATHERMOSALINOGRAPHS&search=sassie&view=list>. The page features a navigation bar with links for HOME, FIND DATA, ACCESS DATA, RESOURCES, ABOUT, HELP, and CLOUD DATA. A search bar is located in the top right corner. The main content area is divided into two columns. The left column contains filtering options under the heading 'CLOUD DATASETS', including 'Select Filter (Clear Filter)', 'Processing Levels' (2 - Geophys. Variables, Sensor Coordinates (1)), 'Keywords' (Any Keywords: OCEANS (1), Any variable: OCEAN TEMPERATURE (1)), 'Instruments' (Any Instruments: THERMOSALINOGRAPHS (1)), 'Platforms' (Water-based Platforms (1)), and 'Projects' (SASSIE (1)). The right column features an 'Advanced search' section with a 'Free Text Search' tab selected. A red circle highlights the search input field containing the text 'sassie'. Below the search bar are 'Perform Search' and 'Reset' buttons. To the right of the search bar are 'Temporal Search' options for 'Start Date' and 'Stop Date'. Below the search bar is a 'Capabilities Filter' section with a 'Download' button and a 'Clear Filter' link. The search results section indicates 'Found 1 matching dataset(s)' and lists the dataset: 'SASSIE Arctic Field Campaign Shipboard Thermosalinograph Data Fall 2022 Version 1 (SASSIE_L2_SHIPBOARD_TSG_V1)'. Below the dataset name are tags for 'SALINITY', 'CONDUCTIVITY', and 'OCEAN SALINITY'. At the bottom of the search results are links for 'Information', 'Coverage', 'Data Access', 'Documentation', and 'Citation'. The dataset details include 'Version: 1', 'Processing Level: 2', and 'Start/Stop Date: 2022-09-05 to 2022-10-03'. A red bracket on the left side of the screenshot groups the filtering options and the search bar, with a '1' in a box pointing to the search bar and a '2' in a box pointing to the filtering options.

Download Options: Overview

On the dataset's landing page...

Home » Dataset Discovery

SASSIE Arctic Field Campaign Shipboard Thermosalinograph Data Fall 2022 Version 1 (SASSIE_L2_SHIPBOARD_TSG_V1)

Information Coverage **Data Access** Documentation Citation

CAPABILITIES

Download

DIRECT ACCESS

- Browse Granule Listing
 - <https://cmr.earthdata.nasa.gov/virtual-directory/collections/C2624105045-POCLOUD>
- Search Granules
 - <https://search.earthdata.nasa.gov/search/granules?p=C2624105045-POCLOUD>

DIRECT S3-ACCESS

- Available for access in-region with AWS Cloud
 - Region**
 - us-west-2
 - Bucket/Object Prefix:** **Information**
 - podaac-ops-cumulus-protected/SASSIE_L2_SHIPBOARD_TSG_V1/
 - podaac-ops-cumulus-public/SASSIE_L2_SHIPBOARD_TSG_V1/
 - AWS S3 Credentials**
 - [Get AWS S3 Credentials](#) | [Documentation](#)

Cloud Enabled

Status: COMPLETE

Short Name: SASSIE_L2_SHIPBOARD_TSG_V1

Collection Concept ID: C2624105045-POCLOUD

Spatial Coverage:
N: 73.6° S: 64.5°
E: -144° W: -169°

Access:

- [Browse Granule Listing](#)
- [Search Granules](#)

Capabilities:

Download

PO.DAAC Data subscriber tool*

Search available files,
directory style (a little slow)*

NASA Earthdata Search GUI*

*need Earthdata account, very quick to setup

Download Options: Earthdata Search

Login first!

1

Information Coverage Data Access Documentation Citation

CAPABILITIES

Download

DIRECT ACCESS

- Browse Granule Listing
 - <https://cmr.earthdata.nasa.gov/virtual-directory/collections/C2624105045-POCLOUD>
- Search Granules**
 - <https://search.earthdata.nasa.gov/search/granules?p=C2624105045-POCLOUD>

DIRECT ACCESS

- Available for access in-region with AWS Cloud
 - Region**
 - us-west-2
 - Bucket/Object Prefix:** [Information](#)
 - podaac-ops-cumulus-protected/SASSIE_L2_SHIPBOARD_TSG_V1/
 - podaac-ops-cumulus-public/SASSIE_L2_SHIPBOARD_TSG_V1/

2

EARTHDATA SEARCH

Search Results (9,641 Collections)

SASSIE Arctic Field Campaign Shipboard Thermosalinograph Data Fall 2022 Version 1

Showing 1 of 1 matching granule

Filter Granules Clear Filters

Granule Search

Granule ID(s)

Search Single or Multiple Granule IDs...

Temporal

Start

YYYY-MM-DD HH:mm:ss

End

YYYY-MM-DD HH:mm:ss

Recurring?

Data Access

Find only granules that have browse images

Find only granules that are available online

SASSIE_Fall_2022_Shipboard_TS

| | |
|-------|---------------------|
| G | |
| START | 2022-09-05 23:58:30 |
| END | 2022-10-02 22:09:10 |

+

Download All 1

Search Time: 2.2s

Follow subsequent steps. User is given options to:

- Click on download links
- Save and run a linux script to download files (directions included)
- Instructions on direct cloud access

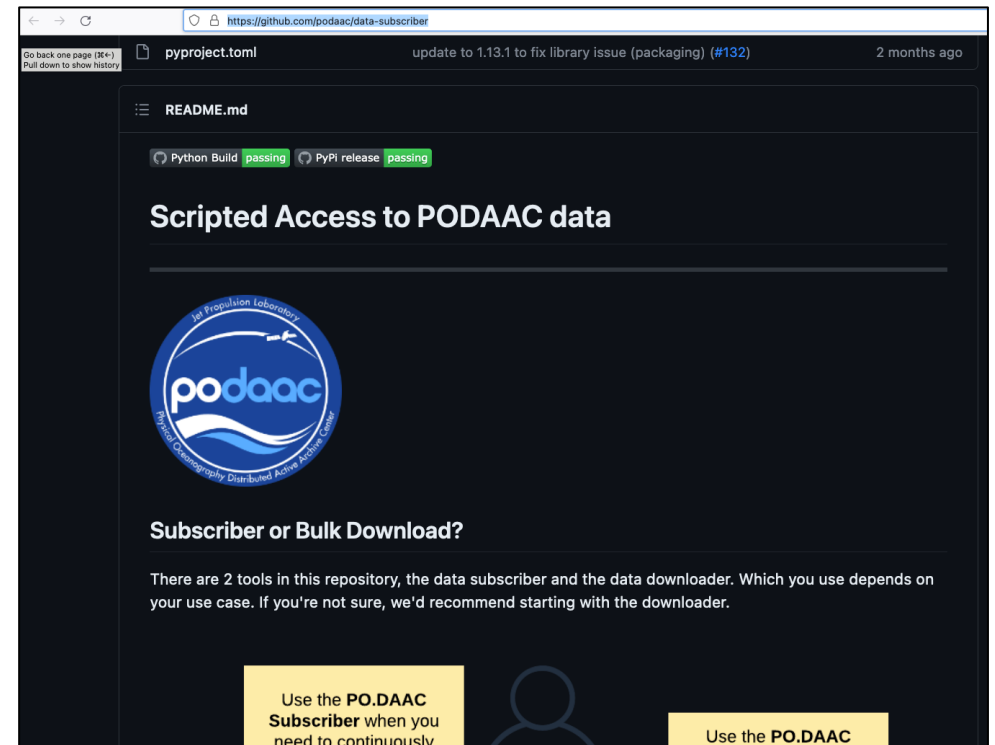
Download Options: PO.DAAC Data Subscriber Tool

Download instructions and documentation here:

<https://github.com/podaac/data-subscriber>

Summary

- Command line tool for bulk downloads in a single command.
- Temporal sub-setting capabilities (spatial sub-setting to come)
- ***Python package, but no python coding necessary to run***
- ~15 minute setup time if python is already installed. ***Need a .netrc file.***



Download Options: PO.DAAC Data Subscriber Tool

The image shows two screenshots of the PO.DAAC Data Subscriber Tool interface. The left screenshot displays the tool's main window with a 'Download' button circled in red. Below it, a 'Tools' section contains a 'PO.DAAC Data Subscriber' tool with a red oval around its command prompt. The command prompt text is: `podaac-data-subscriber -c SASSIE_L2_SHIPBOARD_TSG_V1 -d ./data/SASSIE_L2_SHIPBOARD_TSG_V1 --start-date 2022-09-05T00:00:00Z`. The right screenshot shows the PO.DAAC website with the 'Data Access' tab circled in red. Below it, a 'Download' button is also circled in red. A red arrow points from the 'Download' button on the website to the 'PO.DAAC Data Subscriber' tool in the left screenshot. A text box at the bottom center contains the following instruction:

- Copy/paste and run this text in your command prompt once the data subscriber package is installed.

Download Options: wget and curl commands

Concise guide on downloading NASA Earthdata files using wget and curl linux commands:

<https://wiki.earthdata.nasa.gov/display/EL/How+To+Access+Data+With+cURL+And+Wget>

File https links will always follow the format:

`https://archive.podaac.earthdata.nasa.gov/podaac-ops-cumulus-protected/<dataset-shortname>/<filename>`

So for example, the TSG data file can be downloaded with

wget command

```
wget --load-cookies ~/.urs_cookies --save-cookies ~/.urs_cookies --keep-session-cookies https://archive.podaac.earthdata.nasa.gov/podaac-ops-cumulus-protected/SASSIE_L2_SHIPBOARD_TSG_V1/SASSIE_Fall_2022_Shipboard_TSG.nc
```

or curl command

```
curl -O -b ~/.urs_cookies -c ~/.urs_cookies -L -n https://archive.podaac.earthdata.nasa.gov/podaac-ops-cumulus-protected/SASSIE_L2_SHIPBOARD_TSG_V1/SASSIE_Fall_2022_Shipboard_TSG.nc
```