

SWOT Level 2 ocean data products: an overview

● Nadir Altimeter and Radiometer Geophysical Data Record (GDR) products:

Geophysical Data Records	Grid	Product description (similar to Jason-3)	Volume and Latency	Availability
L2_NALT_OGDR	Along-track measurements for each half orbit	<ul style="list-style-type: none"> - Near real time sea surface height (SSH) - Near real time sea surface height anomaly (SSHA) - Near real time Significant wave height (SWH) - Preliminary environmental and geophysical corrections 	< 25 MB per file / latency of < 7 hours	AVISO / PODAAC June 2023
L2_NALT_IGDR	Along-track measurements for each half orbit	All variables in L2_NALT_OGDR with a Medium-accuracy orbit (instead of real-time orbit) and additional environmental and geophysical corrections	< 50MB per file / latency of 1-2 days	AVISO / PODAAC June 2023
L2_NALT_GDR	Along-track measurements for each half orbit	All variables in L2_NALT_OGDR after in depth validation with a precise orbit, and precise environmental and geophysical corrections	< 50 MB per file / latency of ~ 90 days	AVISO / PODAAC End of the year 2023
L2_RAD_OGDR	Along-track measurements for each half orbit	Radiometer measurements of wet troposphere content, atmospheric attenuation to backscatter, cloud liquid water, water vapor content and wind speed based on preliminary corrections and a real-time orbit	< 7 MB / latency of < 7 hours	AVISO / PODAAC June 2023
L2_RAD_IGDR	Along-track measurements for each half orbit	Same as L2_RAD_OGDR with a Medium-accuracy orbit	< 5 MB / latency of 1-2 days	AVISO / PODAAC June 2023
L2_RAD_GDR	Along-track measurements for each half orbit	Same as L2_RAD_OGDR with a precise orbit	< 5 MB / latency of ~ 90 days	AVISO / PODAAC End of the year 2023

● Nadir Altimeter GDR product details:

- ✓ Native L2_NALT_(O/I)GDR data sets (1Hz + 20Hz values)
- ✓ Reduced 1Hz L2_NALT_(O/I)GDR-SSHA (sea surface height anomaly only)
- ✓ Expert sensor data sets L2_NALT_S-(I)GDR (1Hz + 20Hz + radar-echo waveforms)

SWOT Nadir Altimeter Level 2 products (based on Jason-2/3 heritage)

Data sets	OGDR	IGDR	GDR
Reduced 1 Hz	OGDR-SSHA	IGDR-SSHA	GDR-SSHA
1 Hz + 20 Hz	OGDR	IGDR	GDR
1 Hz + 20 Hz + waveforms	Not generated	S-IGDR	S-GDR
Latency	3-5 hours	1-2 days	~90 days

Size and Complexity



● **Ka-band Radar Interferometer (KaRIn) Low Rate (LR) SSH product:**

KaRIn L2_LR_SSH 'ocean' product files	Grid	Product description	Volume		Availability
			/day	/year	
Basic SSH ['Basic']	2 km geographically fixed swath-aligned grid	<ul style="list-style-type: none"> - Corrected sea surface height (SSH) - Corrected sea surface height anomaly (SSHA) - Flags indicating data quality - Geophysical reference fields - Crossover height correction information 	1 GB	365 GB	HPC CNES / PODAAC / AVISO Summer 2023
Wind and Wave ['WindWave']	2 km geographically fixed swath-aligned grid	<ul style="list-style-type: none"> - Significant wave height (SWH) - Normalized radar cross section (NRCS or backscatter cross section or sigma0) - Wind speed derived from sigma0 and SWH - Model information on wind and waves - Quality flags 	1 GB	365 GB	HPC CNES / PODAAC / AVISO Summer 2023
Expert SSH with Wind and Wave ['Expert']	2 km geographically fixed swath-aligned grid	All variables in the Basic and Wind and Wave files plus detailed information on instrument and environmental corrections, radiometer data and geophysical models	3 GB	1 TB	HPC CNES / PODAAC / AVISO Summer 2023
Unsmoothed SSH ['Unsmoothed']	~250 m center-beam (native) sampling grid	500 m resolution SSH and Sigma0 without additional smoothing relative to the 250 m native KaRIn grid	40 GB	15 TB	HPC CNES / PODAAC / AVISO Summer 2023

More information about the L2_NALT_(O/I)GDR and L2_RAD_(O/I)GDR can be found in the reference product documents



		Service: Élaboration & Localisation Process:	Reference: SALP-ST-M-EA-17043-CN Version: 1.3 Date: 2022, April 11th Page: 1/105						
SALP Products Specification – SWOT Nadir Altimeter User Products									
SALP									
SALP Products Specification – SWOT Nadir Altimeter User Products									
Prepared by:	F. BIGNALET-CAZALET CNES		Signallet-Cazalet François 2022.04.11 16:07:14 +02'00'						
Accepted by:									
Approved by:	N. PICOT CNES S. DESAI NASA/JPL		Picot Nicolas Signature Date: 2022.04.12 14:52:14 +02'00'						
Document ref : SALP-ST-M-EA-17043-CN		Issue :1	Update :3						
For	DS2	DS4	DS5	DH2	TP	ENVISAT	JASON1	DCY	LTA-SIRAL
Application to									
For	SMM	SALP				JASON2	JASON3	SWOT	SARAL/AltiKa
Application to	X	X						X	
Configuration controlled Document	YES					by : CCM SALP		Since : Version 1.1	

Surface Water and Ocean Topography (SWOT) Project
SWOT Product Description
 Long Name: Level 2 Radiometer Geophysical Data Record
 Short Name: L2_RAD_GDR
 Revision B

Prepared by:

Electronic signature on file	10-14-2022	Email approval on file	10-17-2022
Chun Sik Chae	Date	Nicolas Picot	Date
JPL SWOT AMR Instrument Scientist		CNES Algorithm Engineer	

Approved by:

Electronic signature on file	10-14-2022	Email approval on file	10-17-2022
Curtis Chen	Date	Alejandro Bohé	Date
JPL Algorithm System Engineer		CNES Algorithm System Engineer	

Concurred by:

Electronic signature on file	10-18-2022	Email approval on file	10-17-2022
Oh-Ig Kiwoon	Date	Hélène Vadon	Date
JPL SDS Manager		CNES SDS Manager	

Paper copies of this document may not be current and should not be relied on for official purposes. The current version is in the JPL Engineering Product Data Management System (EPDM: <https://epdm.jpl.nasa.gov>) and the CNES Product Data Management System

July 15, 2022
JPL D-56417



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More information about the L2_LR_SSH can be found in the reference product document



Surface Water and Ocean Topography (SWOT) Project
SWOT Product Description
 Long Name: Level 2 KaRIn Low Rate Sea Surface Height Product
 Short Name: L2_LR_SSH
 Revision A

Prepared by:

Electronic signature on file	9-28-2022	Email approval on file	10-6-2022
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Approved by:

Electronic signature on file	9-27-2022	Email approval on file	10-4-2022
Curtis Chen	Date	Alejandro Bohé	Date
JPL Algorithm System Engineer		CNES Algorithm System Engineer	

Concurred by:

Electronic signature on file	9-28-2022	Email approval on file	10-4-2022
Oh-Ig Kiwoon	Date	Hélène Vadon	Date
JPL SDS Manager		CNES SDS Manager	

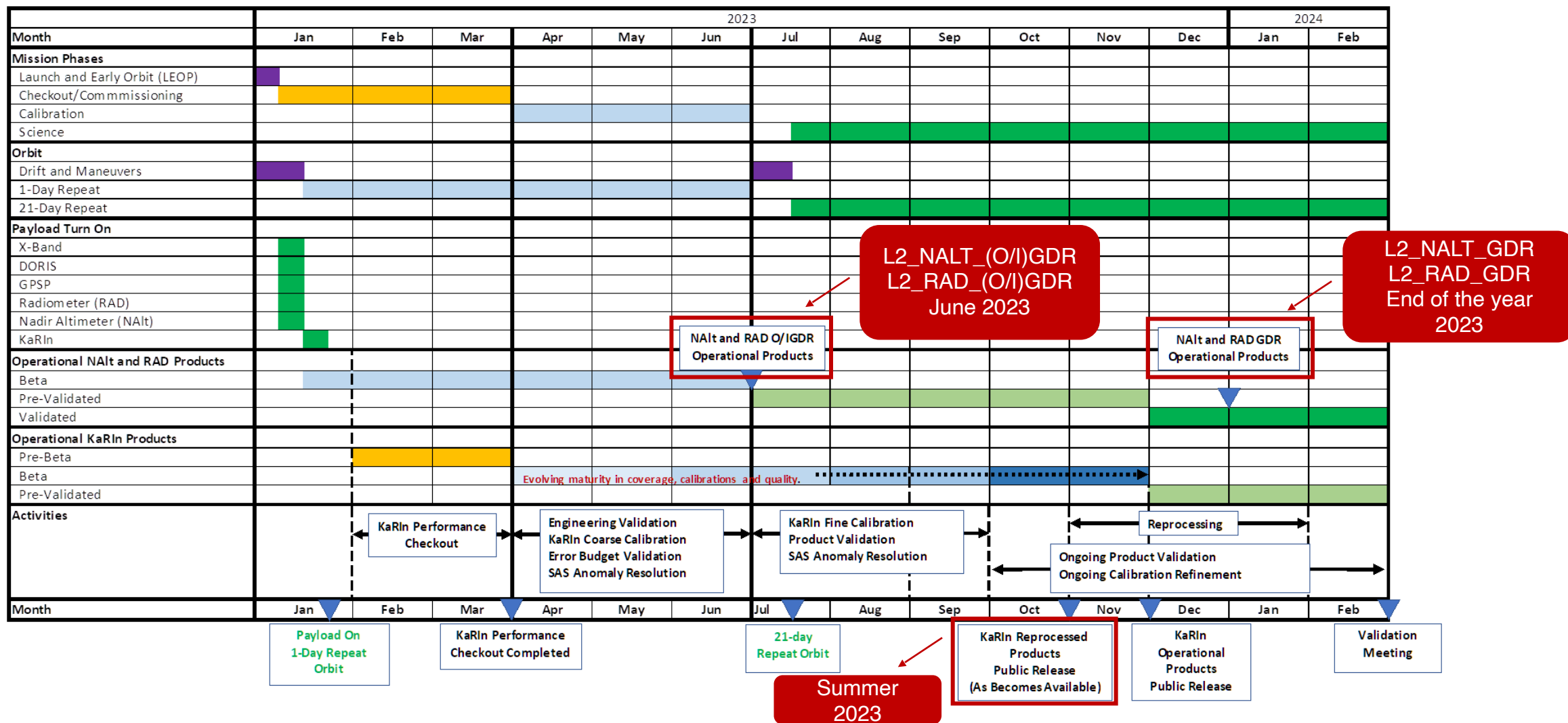
Paper copies of this document may not be current and should not be relied on for official purposes. The current version is in the JPL Engineering Product Data Management system (EPDM: <https://epdm.jpl.nasa.gov>) and the CNES Products Data Management System

September 2, 2022
JPL D-56407



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Release calendar of the SWOT products:



SWOT Level 2 ocean data access: an overview

● Nadir Altimeter and Radiometer (O/I)GDR products:

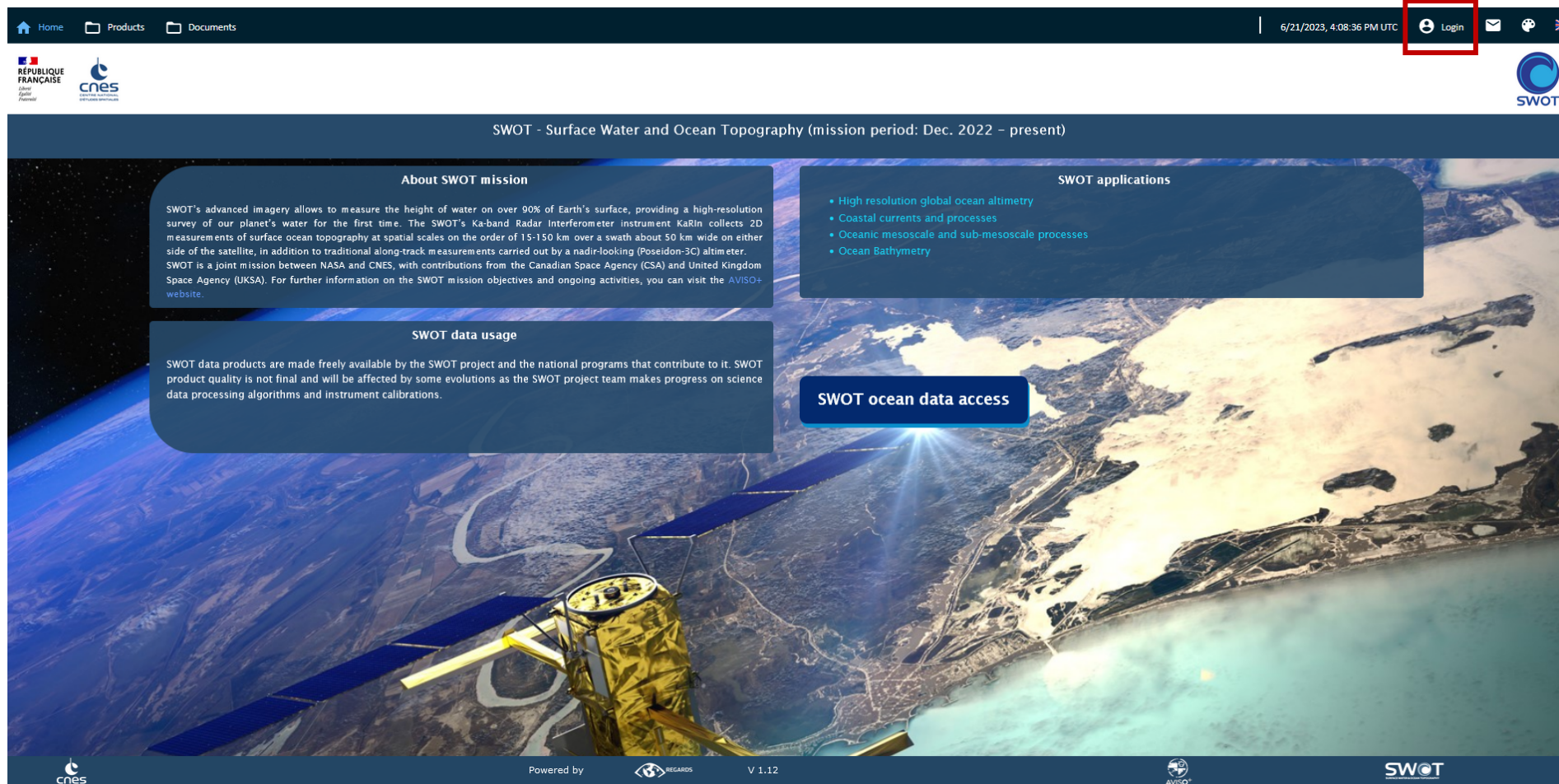
- ✓ If you don't have a MY AVISO+ account, you first need to register and accept the License agreement:
<https://www.aviso.altimetry.fr/en/data/data-access/registration-form.html> and select the product:
 - “Geophysical Data Records”
- ✓ A login/password will be provided via email with the necessary information to access your personal MY AVISO+ account: <https://www.aviso.altimetry.fr/en/my-aviso-plus.html>
- ✓ Once registered to AVISO+, the (O/I)GDR products are available via:
 - **A new long-term archive platform of the CNES Data Center**
 - ➡ • AVISO CNES Data Center (<https://regards.cnes.fr/user/ssalto/>)
- ✓ If you have a MY AVISO+ account but cannot access to the GDR products on AVISO+ website: select the product name: “Geophysical Data Records” and submit a request via the “My product” page
- ✓ You will receive an email of confirmation after accepting the License agreement and data access will be provided via:
 - FTP/SFTP (<ftp://ftp-access.aviso.altimetry.fr/>) and THREDDS Data Server (TDS) catalog
 - ➡ • FTP/SFTP directory: /geophysical-data-record/swot/
 - TDS directory: <https://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>

• Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/>

Log in here



The screenshot shows the SWOT website interface. At the top, there is a navigation bar with 'Home', 'Products', and 'Documents' links. The date and time '6/21/2023, 4:08:36 PM UTC' are displayed, along with a 'Login' button highlighted by a red box and an arrow. The main content area features a header 'SWOT - Surface Water and Ocean Topography (mission period: Dec. 2022 - present)'. Below this, there are four informational boxes: 'About SWOT mission', 'SWOT data usage', 'SWOT applications', and 'SWOT ocean data access'. The background of the page is a satellite image of the Earth's surface, showing a coastline and a satellite in orbit.

Home Products Documents | 6/21/2023, 4:08:36 PM UTC Login

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SWOT

SWOT - Surface Water and Ocean Topography (mission period: Dec. 2022 - present)

About SWOT mission

SWOT's advanced imagery allows to measure the height of water on over 90% of Earth's surface, providing a high-resolution survey of our planet's water for the first time. The SWOT's Ka-band Radar Interferometer instrument KaRin collects 2D measurements of surface ocean topography at spatial scales on the order of 15-150 km over a swath about 50 km wide on either side of the satellite, in addition to traditional along-track measurements carried out by a nadir-looking (Poseidon-3C) altimeter. SWOT is a joint mission between NASA and CNES, with contributions from the Canadian Space Agency (CSA) and United Kingdom Space Agency (UKSA). For further information on the SWOT mission objectives and ongoing activities, you can visit the AVISO+ website.

SWOT data usage

SWOT data products are made freely available by the SWOT project and the national programs that contribute to it. SWOT product quality is not final and will be affected by some evolutions as the SWOT project team makes progress on science data processing algorithms and instrument calibrations.

SWOT applications

- High resolution global ocean altimetry
- Coastal currents and processes
- Oceanic mesoscale and sub-mesoscale processes
- Ocean Bathymetry

SWOT ocean data access

cnes Powered by REGARDS V 1.12 AVISO SWOT

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/>

Log in here

The screenshot shows the SWOT website interface. At the top right, there is a 'Login' button highlighted with a red box. Below the main navigation, there are sections for 'About SWOT mission' and 'SWOT data usage'. On the right side, there is a 'Login to ssalto user interface' form with fields for 'Login or E-mail address' and 'Password', and a 'LOG IN' button. Below the form, there is a section 'Or log in with...' with a 'LOG IN WITH AVISO' button highlighted by a red box. A red arrow points from the 'Log in here' callout to the 'Login' button, and another red arrow points from the 'Select log in with AVISO' callout to the 'LOG IN WITH AVISO' button.

Select log in with AVISO

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/>

Log in here

SWOT - Surface Water and Ocean Topography (mission period: Dec. 2022 - present)

About SWOT mission

SWOT's advanced imagery allows to measure the height of water on over 90% of Earth's surface, providing a high-resolution survey of our planet's water for the first time. The SWOT's Ka-band Radar Interferometer instrument KaRIn collects 2D measurements of surface ocean topography at spatial scales on the order of 15-150 km over a swath about 50 km wide on either side of the satellite, in addition to traditional along-track measurements carried out by a nadir-looking (Poseidon-3C) altimeter. SWOT is a joint mission between NASA and CNES, with contributions from the Canadian Space Agency (CSA) and United Kingdom Space Agency (UKSA). For further information on the SWOT mission objectives and ongoing activities, you can visit the AVISO+ website.

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SWOT applications

- High resolution global ocean altimetry
- Coastal currents and processes
- Oceanic mesoscale and sub-mesoscale processes
- Ocean bathymetry

Login to ssalto user interface

Enter your username and password to log in

SW

SWOT data products are made freely available by the product quality is not final and will be affected by so data processing algorithms and instrument calibratic

Log in or E-mail address

Password

Or log in with...

Select a service

LOG IN WITH AVISO

Single Sign-On Authentication

WELCOME TO THE AVISO DATA ACCESS SERVICES

Fill your login/password and click on Login to download data. If you are not registered yet click on Register

Your individual account gives you an access to a given list of altimetry products. Thus, the products you're not subscribed to are not accessible to you.

If you have trouble logging in, make sure your browser is set to accept cookies.

- Any question?
→ Aviso Service Desk: aviso@altimetry.fr

Thank you for using Aviso products

For security reasons, please Exit your web browser when you quit services requiring authentication!

LOGIN

PASSWORD

LOGIN

Forgot your password?
Register

Select log in with AVISO

Use your AVISO+ credentials

• Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/>

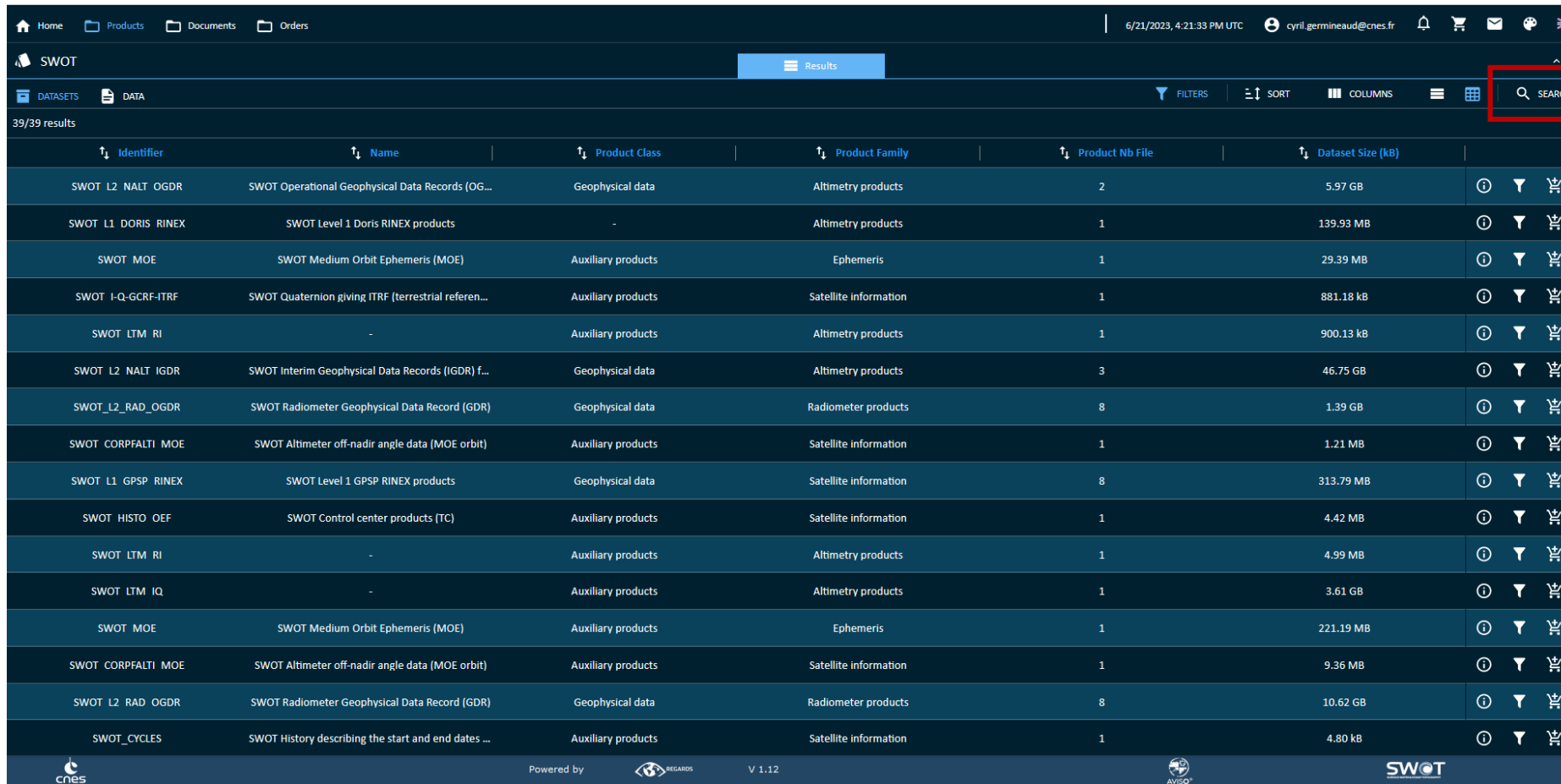


The screenshot shows the SWOT website interface. At the top, there are navigation links for Home, Products, and Documents, along with the date and time (6/21/2023, 4:08:36 PM UTC) and a Login button. The main header includes the logos for the République Française and CNES, and the SWOT logo. The main content area is titled "SWOT - Surface Water and Ocean Topography (mission period: Dec. 2022 - present)". It features a background image of the satellite in orbit over a coastal region. Three informational boxes are present: "About SWOT mission" (describing the satellite's instruments and mission goals), "SWOT data usage" (stating that data is freely available), and "SWOT applications" (listing high-resolution global ocean altimetry, coastal currents, oceanic mesoscale processes, and ocean bathymetry). A red box highlights the "SWOT ocean data access" button, and a red callout box with an arrow pointing to it says "After logging in, access SWOT data here". The footer contains logos for CNES, Powered by RECARDS, V 1.12, AVISO, and SWOT.

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/>



The screenshot shows the SWOT data archive interface. At the top, there is a navigation bar with 'Home', 'Products', 'Documents', and 'Orders'. The main header includes 'SWOT' and 'Results'. Below this, there are tabs for 'DATASETS' and 'DATA', and a search bar labeled 'SEARCH' which is highlighted with a red box. The table below shows 39/39 results with columns for Identifier, Name, Product Class, Product Family, Product Nb File, and Dataset Size (kB). The table lists various SWOT products such as SWOT L2 NALT OGDR, SWOT L1 DORIS RINEX, and SWOT MOE.

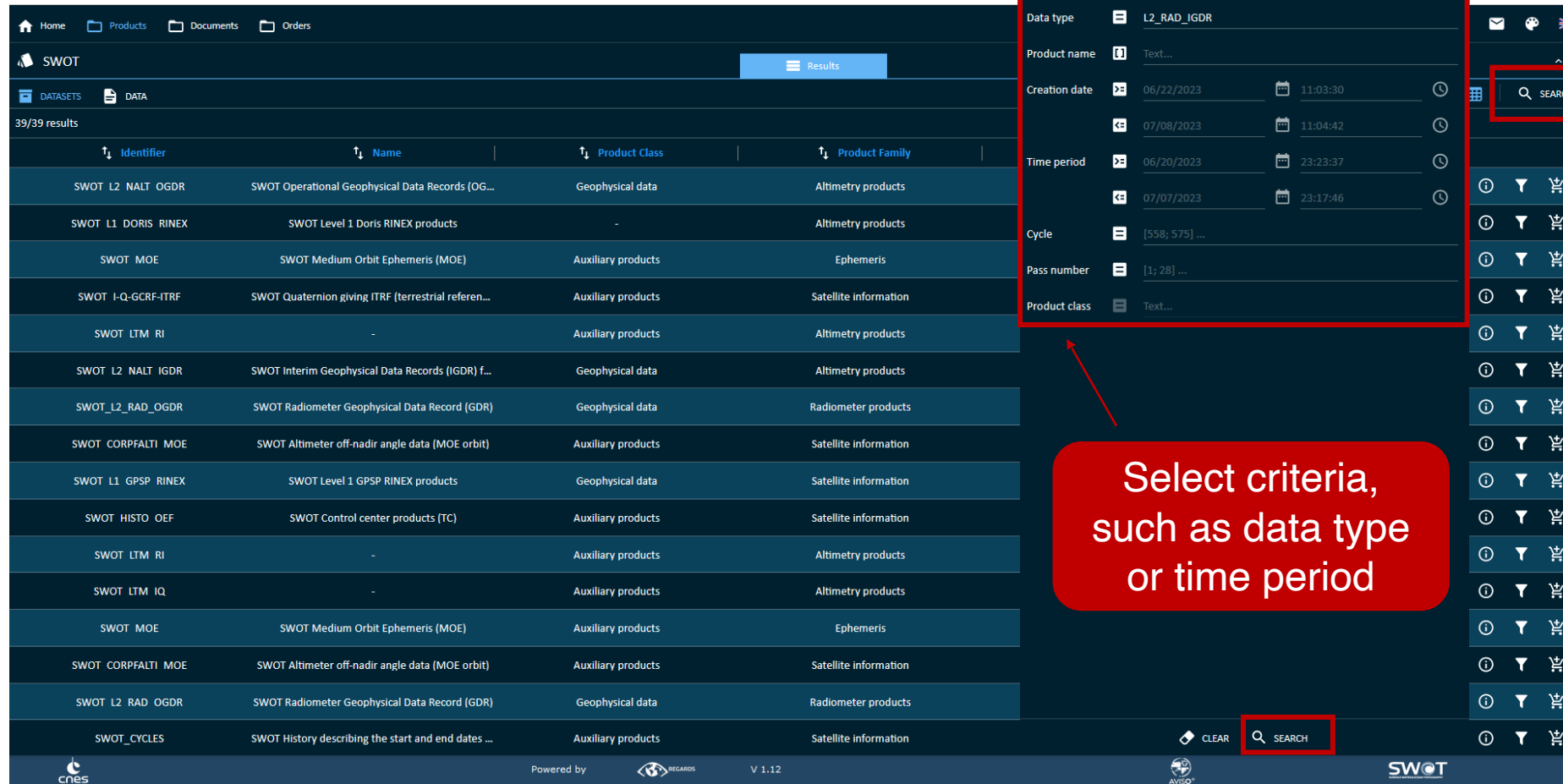
Identifier	Name	Product Class	Product Family	Product Nb File	Dataset Size (kB)
SWOT L2 NALT OGDR	SWOT Operational Geophysical Data Records (OG...	Geophysical data	Altimetry products	2	5.97 GB
SWOT L1 DORIS RINEX	SWOT Level 1 Doris RINEX products	-	Altimetry products	1	139.93 MB
SWOT MOE	SWOT Medium Orbit Ephemeris (MOE)	Auxiliary products	Ephemeris	1	29.39 MB
SWOT I-Q-GCRF-ITRF	SWOT Quaternion giving ITRF (terrestrial referen...	Auxiliary products	Satellite information	1	881.18 kB
SWOT LTM RI	-	Auxiliary products	Altimetry products	1	900.13 kB
SWOT L2 NALT IGDR	SWOT Interim Geophysical Data Records (IGDR) f...	Geophysical data	Altimetry products	3	46.75 GB
SWOT_L2_RAD_OGDR	SWOT Radiometer Geophysical Data Record (GDR)	Geophysical data	Radiometer products	8	1.39 GB
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information	1	1.21 MB
SWOT L1 GPSP RINEX	SWOT Level 1 GPSP RINEX products	Geophysical data	Satellite information	8	313.79 MB
SWOT HISTO OEF	SWOT Control center products (TC)	Auxiliary products	Satellite information	1	4.42 MB
SWOT LTM RI	-	Auxiliary products	Altimetry products	1	4.99 MB
SWOT LTM IQ	-	Auxiliary products	Altimetry products	1	3.61 GB
SWOT MOE	SWOT Medium Orbit Ephemeris (MOE)	Auxiliary products	Ephemeris	1	221.19 MB
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information	1	9.36 MB
SWOT L2 RAD OGDR	SWOT Radiometer Geophysical Data Record (GDR)	Geophysical data	Radiometer products	8	10.62 GB
SWOT_CYCLES	SWOT History describing the start and end dates ...	Auxiliary products	Satellite information	1	4.80 kB

Search by criteria

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT RAD IGDR data



The screenshot displays the SWOT data archive interface. On the left, a table lists 39 results with columns for Identifier, Name, Product Class, and Product Family. On the right, a search filter sidebar is open, showing criteria such as Data type (L2_RAD_IGDR), Product name, Creation date, Time period, Cycle, Pass number, and Product class. A search bar at the bottom right of the sidebar contains the text 'SEARCH'. A red box highlights the search bar in the sidebar, and another red box highlights the search bar at the bottom of the page. A red callout box points to the search bar in the sidebar with the text 'Search by criteria'. Another red callout box points to the search bar at the bottom of the page with the text 'Select criteria, such as data type or time period'.

Identifier	Name	Product Class	Product Family
SWOT L2 NALT OGDR	SWOT Operational Geophysical Data Records (OG...	Geophysical data	Altimetry products
SWOT L1 DORIS RINEX	SWOT Level 1 Doris RINEX products	-	Altimetry products
SWOT MOE	SWOT Medium Orbit Ephemeris (MOE)	Auxiliary products	Ephemeris
SWOT I-Q-GCRF-ITRF	SWOT Quaternion giving ITRF (terrestrial referen...	Auxiliary products	Satellite information
SWOT LTM RI	-	Auxiliary products	Altimetry products
SWOT L2 NALT IGDR	SWOT Interim Geophysical Data Records (IGDR) f...	Geophysical data	Altimetry products
SWOT L2_RAD_OGDR	SWOT Radiometer Geophysical Data Record (GDR)	Geophysical data	Radiometer products
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information
SWOT L1 GPSP RINEX	SWOT Level 1 GPSP RINEX products	Geophysical data	Satellite information
SWOT HISTO OEF	SWOT Control center products (TC)	Auxiliary products	Satellite information
SWOT LTM RI	-	Auxiliary products	Altimetry products
SWOT LTM IQ	-	Auxiliary products	Altimetry products
SWOT MOE	SWOT Medium Orbit Ephemeris (MOE)	Auxiliary products	Ephemeris
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information
SWOT L2_RAD_OGDR	SWOT Radiometer Geophysical Data Record (GDR)	Geophysical data	Radiometer products
SWOT_CYCLES	SWOT History describing the start and end dates ...	Auxiliary products	Satellite information

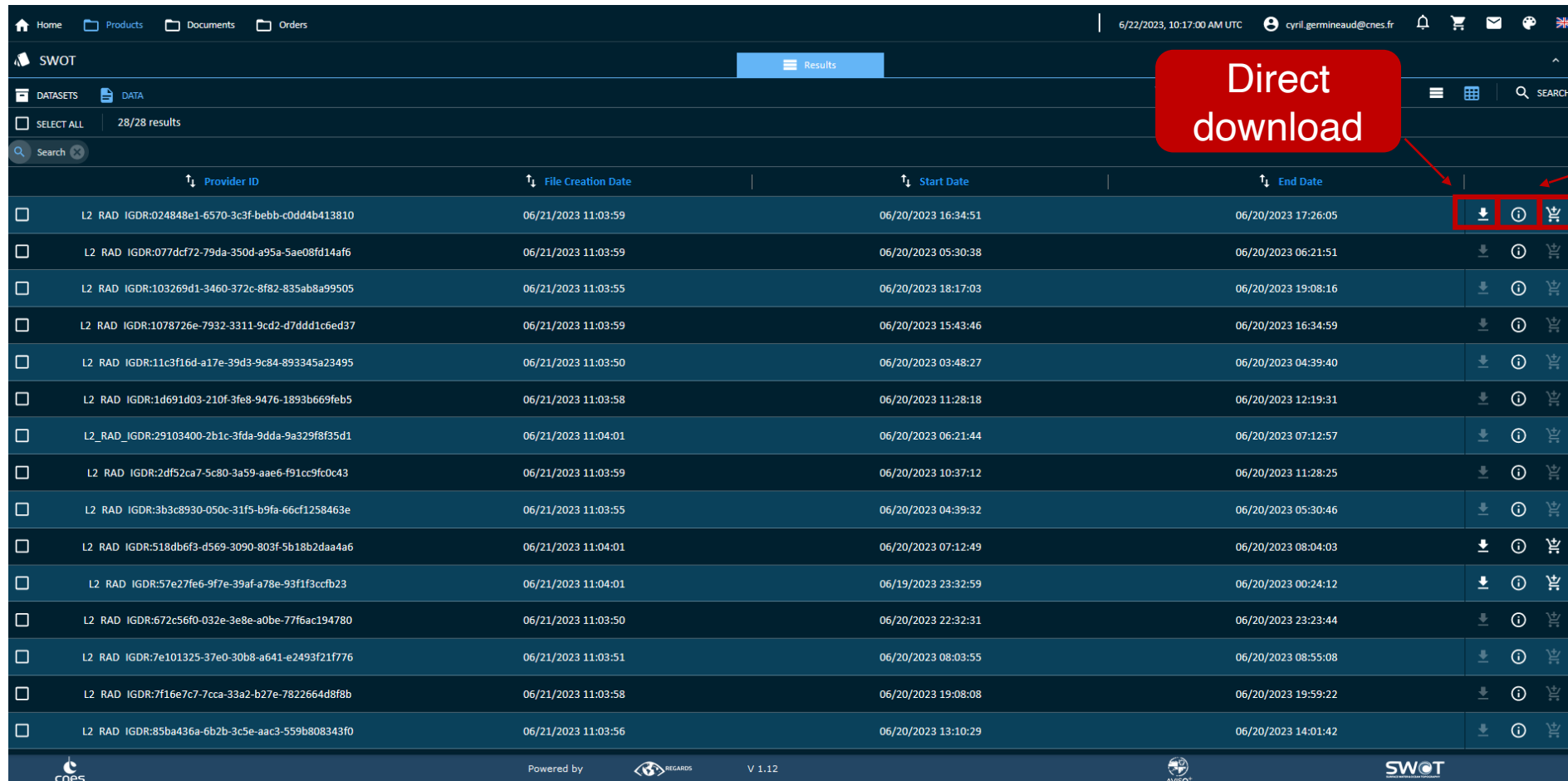
Search by criteria

Select criteria, such as data type or time period

- Available on the CNES altimetry data archive:

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<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT RAD IGDR data



	Provider ID	File Creation Date	Start Date	End Date	
<input type="checkbox"/>	L2 RAD IGDR:024848e1-6570-3c3f-bebb-c0dd4b413810	06/21/2023 11:03:59	06/20/2023 16:34:51	06/20/2023 17:26:05	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:077dcf72-79da-350d-a95a-5ae08fd14af6	06/21/2023 11:03:59	06/20/2023 05:30:38	06/20/2023 06:21:51	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:103269d1-3460-372c-8f82-835ab8a99505	06/21/2023 11:03:55	06/20/2023 18:17:03	06/20/2023 19:08:16	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:1078726e-7932-3311-9cd2-d7dd1c6ed37	06/21/2023 11:03:59	06/20/2023 15:43:46	06/20/2023 16:34:59	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:11c3f16d-a17e-39d3-9c84-893345a23495	06/21/2023 11:03:50	06/20/2023 03:48:27	06/20/2023 04:39:40	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:1d691d03-210f-3fe8-9476-1893b669feb5	06/21/2023 11:03:58	06/20/2023 11:28:18	06/20/2023 12:19:31	Download Info Cart
<input type="checkbox"/>	L2_RAD_IGDR:29103400-2b1c-3fda-9dda-9a329f8f35d1	06/21/2023 11:04:01	06/20/2023 06:21:44	06/20/2023 07:12:57	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:2df52ca7-5c80-3a59-aae6-f91cc9fc0c43	06/21/2023 11:03:59	06/20/2023 10:37:12	06/20/2023 11:28:25	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:3b3c8930-050c-31f5-b9fa-66cf1258463e	06/21/2023 11:03:55	06/20/2023 04:39:32	06/20/2023 05:30:46	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:518db6f3-d569-3090-803f-5b18b2daa4a6	06/21/2023 11:04:01	06/20/2023 07:12:49	06/20/2023 08:04:03	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:57e27fe6-9f7e-39af-a78e-93f1f3ccfb23	06/21/2023 11:04:01	06/19/2023 23:32:59	06/20/2023 00:24:12	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:672c56f0-032e-3e8e-a0be-77f6ac194780	06/21/2023 11:03:50	06/20/2023 22:32:31	06/20/2023 23:23:44	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:7e101325-37e0-30b8-a641-e2493f21f776	06/21/2023 11:03:51	06/20/2023 08:03:55	06/20/2023 08:55:08	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:7f16e7c7-7cca-33a2-b27e-7822664d8f8b	06/21/2023 11:03:58	06/20/2023 19:08:08	06/20/2023 19:59:22	Download Info Cart
<input type="checkbox"/>	L2 RAD IGDR:85ba436a-6b2b-3c5e-aac3-559b808343f0	06/21/2023 11:03:56	06/20/2023 13:10:29	06/20/2023 14:01:42	Download Info Cart

Direct download

Full data product description

Add multiple products to your cart

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2 GDR products:

<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT RAD IGDR data

Provider ID	File Creation Date	Start Date	End Date	Actions
L2 RAD IGDR:024848e1-6570-3c3f-bebb-c0dd4b413810	06/21/2023 11:03:59	06/20/2023 16:34:51	06/20/2023 17:26:05	[Download] [Info] [Share]
L2 RAD IGDR:077dcf72-79da-350d-a95a-5ae08fd14afb	06/21/2023 11:03:59	06/20/2023 05:30:38	06/20/2023 06:21:51	[Download] [Info] [Share]

Selection	Objects count	Total files size	Processing	Active filters
SWOT_L2_RAD_IGDR	3	8.78 MB		
6/22/2023, 10:19:15 AM	1	2.96 MB		[Search] [Trash]
6/22/2023, 10:24:39 AM	1	2.96 MB		[Search] [Trash]
6/22/2023, 10:24:42 AM	1	2.98 MB		[Search] [Trash]
6/22/2023, 10:24:44 AM	1	2.84 MB		[Search] [Trash]
Total	3	8.78 MB		

L2 RAD IGDR:7e101325-37e0-30b8-a641-e2493f21f776	06/21/2023 11:03:51	06/20/2023 08:03:55	06/20/2023 08:55:08	[Download] [Info] [Share]
L2 RAD IGDR:7f16e7c7-7cca-33a2-b27e-7822664d8f8b	06/21/2023 11:03:58	06/20/2023 19:08:08	06/20/2023 19:59:22	[Download] [Info] [Share]
L2 RAD IGDR:85ba436a-6b2b-3c5e-aac3-559b808343f0	06/21/2023 11:03:56	06/20/2023 13:10:29	06/20/2023 14:01:42	[Download] [Info] [Share]

● Nadir Altimeter and Radiometer GDR products:

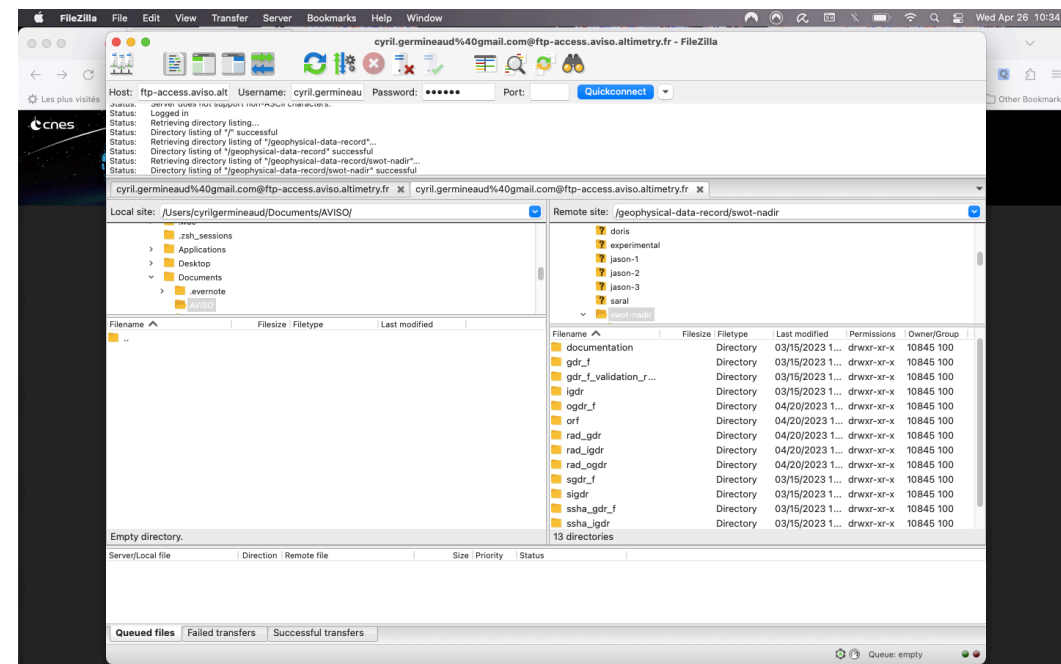
FTP/SFTP server directory trees:

- /geophysical-data-record/swot/

FTP access: ftp://ftp-access.aviso.altimetry.fr:21/

SFTP access: sftp://ftp-access.aviso.altimetry.fr:22/

!/\ FTP/SFTP protocols are no longer supported by web browsers. FTP clients such as FileZilla* can be used as an alternative



*<https://filezilla-project.org/>


- Nadir Altimeter and Radiometer GDR products:**













FTP/SFTP server directory (/geophysical-data-record/swot) tree

GDR-related products directory names	Directory description
documentation	data processing information, products handbook, etc.
gdr_f	GDR-F native products with a subdirectory for each cycle
gdr_f_validation_report	GDR-F validation reports
igdr	Interim GDR native products with a subdirectory for each cycle and a subdirectory containing the latest data
ogdr_f	Operational GDR-F with a subdirectory for each cycle
orf	SWOT Orbit Revolution File (ORF)
sgdr_f	Sensor GDR-F with a subdirectory for each cycle
sigdr	Sensor-Interim GDR with a unique subdirectory containing the latest data
ssha_gdr_f	GDR-F reduced products with a subdirectory for each cycle
ssha_igdr	Interim GDR reduced products with a subdirectory for each cycle and a subdirectory containing the latest data
GDR-related products directory names	Directory description
rad_gdr	GDR for each of the two SWOT radiometers
rad_igdr	Interim GDR for each of the two SWOT radiometers
rad_ogdr	Operational GDR for each of the two SWOT radiometers

- Nadir Altimeter and Radiometer GDR products:

THREDDS Data Server directory (<https://tds.aviso.altimetry.fr/thredds/L2-SWOT/L2-SWOT.html>) tree

 **Catalog** <http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>













Dataset	Size	Last Modified
 L2_SWOT_Data		--
 L2_SWOT_NALT - SSHA_GDR-F/		--
 L2_SWOT_NALT - SSHA_IGDR-F/		--
 L2_SWOT_NALT - SSHA_OGDR-F/		--
 L2_SWOT_NALT - GDR-F/		--
 L2_SWOT_NALT - IGDR-F/		--
 L2_SWOT_NALT - OGDR-F/		--
 L2_SWOT_NALT - SGDR-F/		--
 L2_SWOT_NALT - SIGDR-F/		--
 L2_SWOT - RAD_GDR/		--
 L2_SWOT - RAD_IGDR/		--
 L2_SWOT - RAD_OGDR/		--

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- Nadir Altimeter and Radiometer GDR products:


THREDDS Data Server directory (<https://tds.aviso.altimetry.fr/thredds/L2-SWOT/L2-SWOT.html>) tree

Catalog <http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>

Dataset	Size	Last Modified
 L2_SWOT_Data		--
 L2_SWOT_NALT - SSHA GDR-F/		--
 L2_SWOT_NALT - SSHA IGDR-F/		--
 L2_SWOT_NALT - SSHA OGDR-F/		--
 L2_SWOT_NALT - GDR-F/		--
 L2_SWOT_NALT - IGDR-F/		--
 L2_SWOT_NALT - OGDR-F/		--
 L2_SWOT_NALT - SGDR-F/		--
 L2_SWOT_NALT - SIGDR-F/		--
 L2_SWOT - RAD_GDR/		--
 L2_SWOT - RAD_IGDR/		--
 L2_SWOT - RAD_OGDR/		--

An example - Access to L2 SWOT NALT (Nadir ALTimeter) IGDR data

Dataset

 [dataset-l2-geophysical-data-record-swot-nalt-igdr-f/](#)

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- Nadir Altimeter and Radiometer GDR products:

THREDDS Data Server directory (<https://tds.aviso.altimetry.fr/thredds/L2-SWOT/L2-SWOT.html>) tree

Catalog <http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>

Dataset	Size	Last Modified
L2_SWOT_Data		--
L2_SWOT_NALT - SSHA GDR-F/		--
L2_SWOT_NALT - SSHA IGDR-F/		--
L2_SWOT_NALT - SSHA OGDR-F/		--
L2_SWOT_NALT - GDR-F/		--
L2_SWOT_NALT - IGDR-F/		--
L2_SWOT_NALT - OGDR-F/		--
L2_SWOT_NALT - SGDR-F/		--
L2_SWOT_NALT - SIGDR-F/		--
L2_SWOT - RAD_GDR/		--
L2_SWOT - RAD IGDR/		--
L2_SWOT - RAD OGDR/		--

An example - Access to L2 SWOT NALT (Nadir ALTimeter) IGDR data

Dataset

[dataset-l2-geophysical-data-record-swot-nalt-igdr-f/](#)

Catalog <http://tds.aviso.altimetry.fr/thredds/catalog/dataset-l2-geophysical-data-record-swot-nalt-igdr-f.xml/catalog.html>

Dataset	Size	Last Modified
dataset-l2-geophysical-data-record-swot-nalt-igdr-f		--
cycle_565/		--
cycle_564/		--
cycle_563/		--
cycle_562/		--
cycle_561/		--
cycle_560/		--
cycle_559/		--

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THREDDS Data Server [Version 4.6.10 - 2017-04-19T16:32:55-0600] [Documentation](#)

● KaRIn LR SSH ‘ocean’ beta pre-validated product (Summer 2023):

- ✓ If you don't have a MY AVISO+ account, you first need to register and accept the License agreement: <https://www.avisio.altimetry.fr/en/data/data-access/registration-form.html> and select the product:
 - “SWOT KaRIn Low Rate products”

- ✓ A login/password will be provided via email with the necessary information to access your personal MY AVISO+ account: <https://www.avisio.altimetry.fr/en/my-avisio-plus.html>

- ✓ Once registered to AVISO+, the L2_LR_SSH product is available via:
 - **A new long-term archive platform of the CNES Data Center**
 - ➡ • AVISO CNES Data Center (<https://regards.cnes.fr/user/ssalto/>)

- ✓ If you have a MY AVISO+ account but cannot access to the SWOT KaRIn products on AVISO+ website:

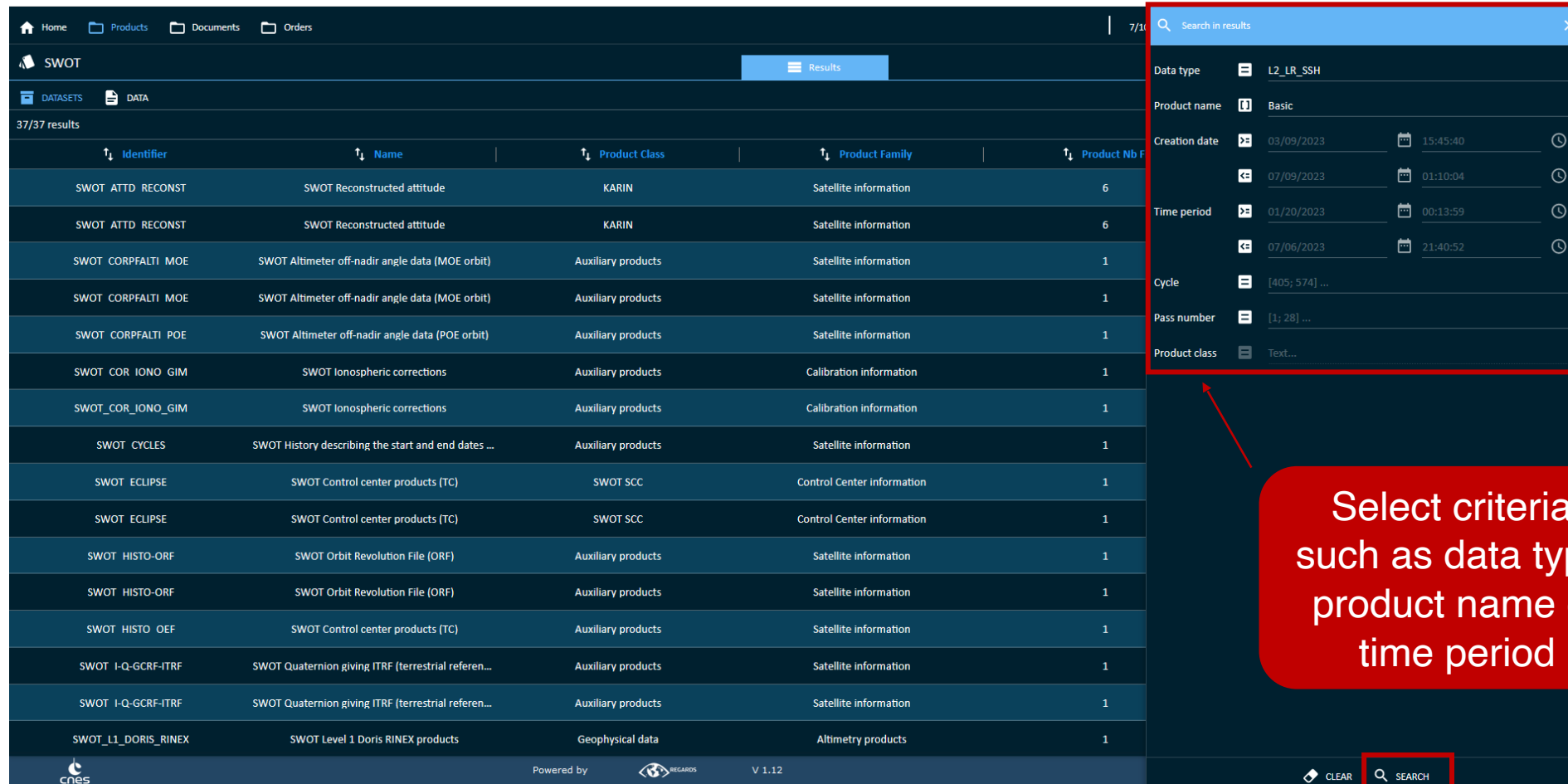
select the product name: “SWOT KaRIn Low Rate products” and submit a request via the “My product” page

- ✓ You will receive an email of confirmation after accepting the License agreement and data access will be provided via:
 - FTP/SFTP (<ftp://ftp-access.avisio.altimetry.fr/>) and THREDDS Data Server (TDS) catalog
 - ➡ • FTP/SFTP directory: /swot_beta_products/karin/l2-lr-ssh/
 - TDS directory: <https://tds.avisio.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2_LR_SSH (sub-)products:

<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT KaRIn - L2_LR_SSH 'Basic' data



The screenshot displays the SWOT data archive interface. On the left, a table lists 37/37 results with columns for Identifier, Name, Product Class, Product Family, and Product Nb. On the right, a search filter panel is open, showing criteria for Data type (L2_LR_SSH), Product name (Basic), Creation date (03/09/2023 to 07/09/2023), Time period (01/20/2023 to 07/06/2023), Cycle ([405; 574] ...), Pass number ([1; 28] ...), and Product class (Text...). A red callout box points to the filter panel with the text: "Select criteria, such as data type/ product name or time period".

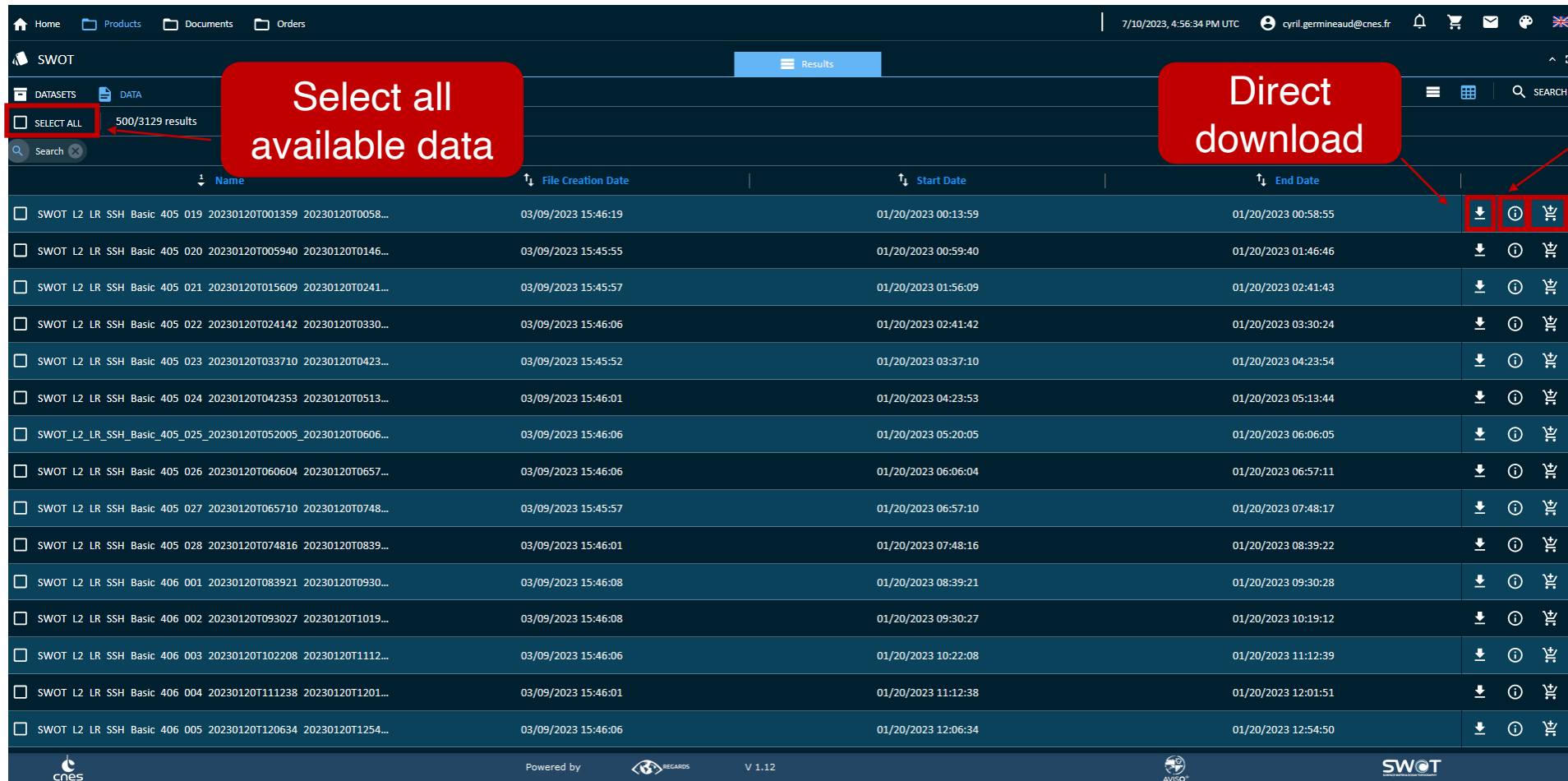
Identifier	Name	Product Class	Product Family	Product Nb
SWOT ATTD RECONST	SWOT Reconstructed attitude	KARIN	Satellite information	6
SWOT ATTD RECONST	SWOT Reconstructed attitude	KARIN	Satellite information	6
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information	1
SWOT CORPFALTI MOE	SWOT Altimeter off-nadir angle data (MOE orbit)	Auxiliary products	Satellite information	1
SWOT CORPFALTI POE	SWOT Altimeter off-nadir angle data (POE orbit)	Auxiliary products	Satellite information	1
SWOT COR_IONO_GIM	SWOT Ionospheric corrections	Auxiliary products	Calibration information	1
SWOT_COR_IONO_GIM	SWOT Ionospheric corrections	Auxiliary products	Calibration information	1
SWOT CYCLES	SWOT History describing the start and end dates ...	Auxiliary products	Satellite information	1
SWOT ECLIPSE	SWOT Control center products (TC)	SWOT SCC	Control Center information	1
SWOT ECLIPSE	SWOT Control center products (TC)	SWOT SCC	Control Center information	1
SWOT HISTO-ORF	SWOT Orbit Revolution File (ORF)	Auxiliary products	Satellite information	1
SWOT HISTO-ORF	SWOT Orbit Revolution File (ORF)	Auxiliary products	Satellite information	1
SWOT HISTO OEF	SWOT Control center products (TC)	Auxiliary products	Satellite information	1
SWOT I-Q-GCRF-ITRF	SWOT Quaternion giving ITRF (terrestrial referen...	Auxiliary products	Satellite information	1
SWOT I-Q-GCRF-ITRF	SWOT Quaternion giving ITRF (terrestrial referen...	Auxiliary products	Satellite information	1
SWOT_L1_DORIS_RINEX	SWOT Level 1 Doris RINEX products	Geophysical data	Altimetry products	1

Select criteria, such as data type/ product name or time period

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2_LR_SSH (sub-)products:

<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT KaRIn - L2_LR_SSH 'Basic' data



The screenshot shows a web interface for SWOT data. A table lists various data products with columns for Name, File Creation Date, Start Date, and End Date. Annotations highlight key features:

- Select all available data:** A red box highlights the 'SELECT ALL' checkbox, which is currently unchecked. A red arrow points to it from a red callout box.
- Direct download:** A red box highlights the download icon (a downward arrow) in the action column of the first row. A red arrow points to it from a red callout box.
- Full data product description:** A red box highlights the information icon (a circle with an 'i') in the action column of the first row. A red arrow points to it from a red callout box.
- Add multiple products to your cart:** A red box highlights the cart icon (a shopping cart) in the action column of the first row. A red arrow points to it from a red callout box.

Name	File Creation Date	Start Date	End Date	Action
SWOT L2 LR SSH Basic 405 019 20230120T001359 20230120T0058...	03/09/2023 15:46:19	01/20/2023 00:13:59	01/20/2023 00:58:55	Download, Info, Cart
SWOT L2 LR SSH Basic 405 020 20230120T005940 20230120T0146...	03/09/2023 15:45:55	01/20/2023 00:59:40	01/20/2023 01:46:46	Download, Info, Cart
SWOT L2 LR SSH Basic 405 021 20230120T015609 20230120T0241...	03/09/2023 15:45:57	01/20/2023 01:56:09	01/20/2023 02:41:43	Download, Info, Cart
SWOT L2 LR SSH Basic 405 022 20230120T024142 20230120T0330...	03/09/2023 15:46:06	01/20/2023 02:41:42	01/20/2023 03:30:24	Download, Info, Cart
SWOT L2 LR SSH Basic 405 023 20230120T033710 20230120T0423...	03/09/2023 15:45:52	01/20/2023 03:37:10	01/20/2023 04:23:54	Download, Info, Cart
SWOT L2 LR SSH Basic 405 024 20230120T042353 20230120T0513...	03/09/2023 15:46:01	01/20/2023 04:23:53	01/20/2023 05:13:44	Download, Info, Cart
SWOT_L2_LR_SSH_Basic_405_025_20230120T052005_20230120T0606...	03/09/2023 15:46:06	01/20/2023 05:20:05	01/20/2023 06:06:05	Download, Info, Cart
SWOT L2 LR SSH Basic 405 026 20230120T060604 20230120T0657...	03/09/2023 15:46:06	01/20/2023 06:06:04	01/20/2023 06:57:11	Download, Info, Cart
SWOT L2 LR SSH Basic 405 027 20230120T065710 20230120T0748...	03/09/2023 15:45:57	01/20/2023 06:57:10	01/20/2023 07:48:17	Download, Info, Cart
SWOT L2 LR SSH Basic 405 028 20230120T074816 20230120T0839...	03/09/2023 15:46:01	01/20/2023 07:48:16	01/20/2023 08:39:22	Download, Info, Cart
SWOT L2 LR SSH Basic 406 001 20230120T083921 20230120T0930...	03/09/2023 15:46:08	01/20/2023 08:39:21	01/20/2023 09:30:28	Download, Info, Cart
SWOT L2 LR SSH Basic 406 002 20230120T093027 20230120T1019...	03/09/2023 15:46:08	01/20/2023 09:30:27	01/20/2023 10:19:12	Download, Info, Cart
SWOT L2 LR SSH Basic 406 003 20230120T102208 20230120T1112...	03/09/2023 15:46:06	01/20/2023 10:22:08	01/20/2023 11:12:39	Download, Info, Cart
SWOT L2 LR SSH Basic 406 004 20230120T111238 20230120T1201...	03/09/2023 15:46:01	01/20/2023 11:12:38	01/20/2023 12:01:51	Download, Info, Cart
SWOT L2 LR SSH Basic 406 005 20230120T120634 20230120T1254...	03/09/2023 15:46:06	01/20/2023 12:06:34	01/20/2023 12:54:50	Download, Info, Cart

Full data product description

Add multiple products to your cart

- Available on the CNES altimetry data archive:

✓ AVISO+ registered users can directly access to SWOT L2_LR_SSH (sub-)products:

<https://regards.cnes.fr/user/ssalto/> An example - Access to L2 SWOT KaRIn - L2_LR_SSH 'Basic' data

The screenshot displays the CNES altimetry data archive interface. The top section shows search results for 'SWOT L2_LR_SSH Basic' data. A red box highlights the 'SELECT ALL' button, with a callout 'Select all available data'. Another red box highlights the 'Direct download' button, with a callout 'Direct download'. A third red box highlights the 'Full data product description' button, with a callout 'Full data product description'. The table below shows the search results:

Name	File Creation Date	Start Date	End Date	Actions
SWOT L2 LR SSH Basic 405 019 20230120T001359 20230120T0058...	03/09/2023 15:46:19	01/20/2023 00:13:59	01/20/2023 00:58:55	Download, Info, Add to cart
SWOT L2 LR SSH Basic 405 020 20230120T005940 20230120T0146...	03/09/2023 15:45:55	01/20/2023 00:59:40	01/20/2023 01:46:46	Download, Info, Add to cart
SWOT L2 LR SSH Basic 405 021 20230120T015609 20230120T0241...	03/09/2023 15:45:57	01/20/2023 01:56:09	01/20/2023 02:41:43	Download, Info, Add to cart

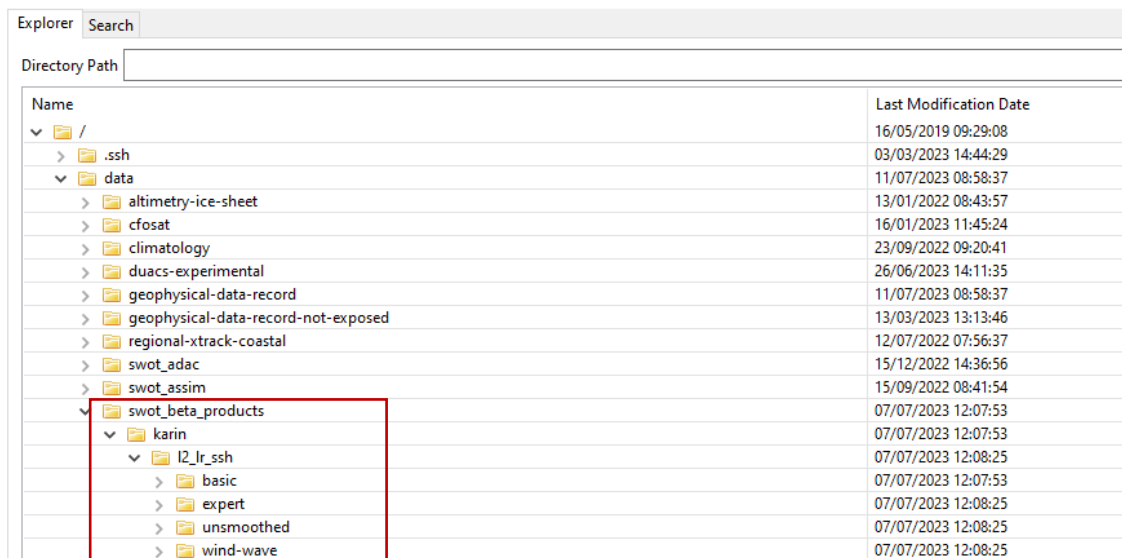
The bottom section shows the 'Cart' page. A red box highlights the 'ORDER' button, with a callout 'Order you cart list here'. A fourth red box highlights the 'Add multiple products to your cart' button, with a callout 'Add multiple products to your cart'. The table below shows the cart items:

Selection	Objects count	Total files size	Processing	Actions
SWOT_L2_LR_SSH	4	36.15 MB		
7/10/2023, 5:12:06 PM	1	8.61 MB		Search, Delete
7/10/2023, 5:12:25 PM	1	9.29 MB		Search, Delete
7/10/2023, 5:12:27 PM	1	9.16 MB		Search, Delete
7/10/2023, 5:12:30 PM	1	9.10 MB		Search, Delete
Total	4	36.15 MB		

● **KaRIn LR SSH ‘ocean’ beta pre-validated product (Summer 2023):**

FTP/SFTP server directory (/swot_beta_products/karin/l2-lr-ssh/) tree

KaRIn L2_LR_SSH product directory names	Directory description
basic	Basic SSH products with a subdirectory for each cycle
wind-wave	Wind and Wave information with a subdirectory for each cycle
expert	Expert SSH + Wind and Wave information with a subdirectory for each cycle
unsmoothed	500 m spatial resolution Unsmoothed SSH with a subdirectory for each cycle




**FTP access: ftp://ftp-access.avisio.altimetry.fr:21/
SFTP access: sftp://ftp-access.avisio.altimetry.fr:22/**

- **KaRIn LR SSH ‘ocean’ beta pre-validated product (Summer 2023):**

TDS directory (<https://tds.aviso.altimetry.fr/thredds/L2-SWOT/L2-SWOT.html>) tree

 [Catalog http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html](http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html)

Dataset	Size	Last Modified
 L2_SWOT_Data		--
 L2_SWOT_NALT - SSHA_GDR-F/		--
 L2_SWOT_NALT - SSHA_IGDR-F/		--
 L2_SWOT_NALT - SSHA_OGDR-F/		--
 L2_SWOT_NALT - GDR-F/		--
 L2_SWOT_NALT - IGDR-F/		--
 L2_SWOT_NALT - OGDR-F/		--
 L2_SWOT_NALT - SGDR-F/		--
 L2_SWOT_NALT - SIGDR-F/		--
 L2_SWOT - RAD_GDR/		--
 L2_SWOT - RAD_IGDR/		--
 L2_SWOT - RAD_OGDR/		--
 L2_SWOT_KARIN - L2_LR_SSH - BASIC/		--
 L2_SWOT_KARIN - L2_LR_SSH - WIND-WAVE/		--
 L2_SWOT_KARIN - L2_LR_SSH - EXPERT/		--
 L2_SWOT_KARIN - L2_LR_SSH - UNSMOOTHED/		--

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- **KaRIn LR SSH ‘ocean’ beta pre-validated product (Summer 2023):**

TDS directory (<https://tds.aviso.altimetry.fr/thredds/L2-SWOT/L2-SWOT.html>) tree

Catalog <http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/L2-SWOT.html>

Dataset	Size	Last Modified
L2_SWOT_Data		--
L2_SWOT_NALT - SSHA_GDR-F/		--
L2_SWOT_NALT - SSHA_IGDR-F/		--
L2_SWOT_NALT - SSHA_OGDR-F/		--
L2_SWOT_NALT - GDR-F/		--
L2_SWOT_NALT - IGDR-F/		--
L2_SWOT_NALT - OGDR-F/		--
L2_SWOT_NALT - SGDR-F/		--
L2_SWOT_NALT - SIGDR-F/		--
L2_SWOT - RAD_GDR/		--
L2_SWOT - RAD_IGDR/		--
L2_SWOT - RAD_OGDR/		--
L2_SWOT_KARIN - L2_LR_SSH - BASIC/		--
L2_SWOT_KARIN - L2_LR_SSH - WIND-WAVE/		--
L2_SWOT_KARIN - L2_LR_SSH - EXPERT/		--
L2_SWOT_KARIN - L2_LR_SSH - UNSMOOTHED/		--

An example - Access to L2 SWOT KaRIn - L2_LR_SSH ‘Basic’ data

Catalog <http://tds.aviso.altimetry.fr/thredds/L2/L2-SWOT-DATA/dataset-l2-lr-ssh-basic.html>

Dataset

- dataset-l2-lr-ssh-basic/

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[Initial TDS Installation at My Group see Info](#)
[THREDDS Data Server \[Version 4.6.10 - 2017-04-19T16:32:55-0600\] Documentation](#)