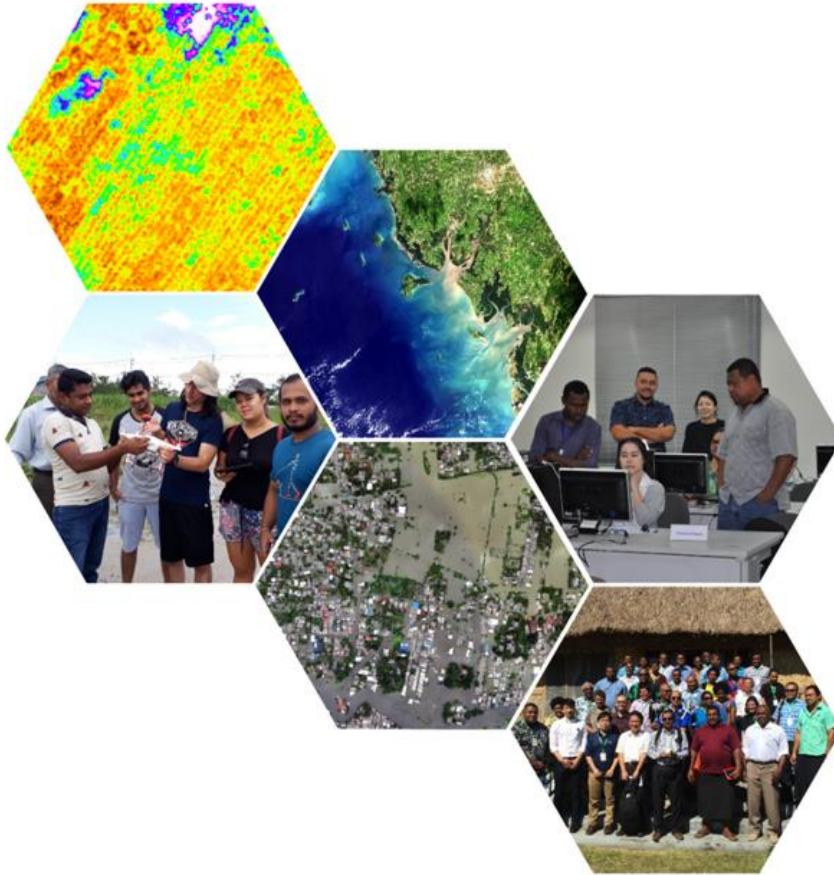


Searching & Obtaining Satellite Data



Geoinformatics Center - AIT



Overview

In this exercise, you will get familiar with some web portals providing free satellite images. In addition, you may also search for GIS data and other disaster-related information.

1. Sentinel Asia Optemis
2. Copernicus Data Space Browser
3. ASF Data Search Vertex
4. Other sources

1. Sentinel Asia Optemis

<https://optemis.sentinel-asia.org/dashboard/users/login>



≡ Nav

🔑 Login

3.1.0-beta

Login

Access to Sentinel Asia Dashboard

Email *

angsana@ait.asia

Password *

Submit

Clear

Recovery Password

1

1. Provide Login information, then click [Submit](#).

2. On the front page, you will see the Latest Emergency request. You can select the event that the data you want to download.








You are already logged in. Your account will expire on 31 March 2025



Latest Emergency

List of 5 the latest requests

Request NO.	Country	Disaster	DPN	DAN	Activation Time	Status
20240816-Nepal-Flood-Other-00534	 Nepal	Flood, Other	10	59	0 days 22:17:37	Approved
20240810-Bhutan-Flood-Landslide-00533	 Bhutan	Flood, Landslide	10	59	6 days 17:05:41	Approved
20240806-Nepal-Flood-00532	 Nepal	Flood	0	0	Ended	Cancelled
20240806-Tajikistan-Flood-Landslide-00531	 Tajikistan	Flood, Landslide	10	59	10 days 22:14:29	Approved
20240730-Nepal-Flood-00530	 Nepal	Flood	10	59	12 days 01:08:23	Approved



Permissions

Allow Modules and Permissions

Modules	Read	Write	Edit	Delete
Constellation Parameter	✗	✗	✗	✗
SA Members	✗	✗	✗	✗
User Accounts	✗	✗	✗	✗
Emergency Request Management	✓	✗	✗	✗
DPN Management	✗	✗	✗	✗
DAN Management	✓	✓	✓	✓



Members

List of your organization members

No	Name	Email	Phone	Last Login
1	Angsana Chaksan	angsana@ait.asia	+66890406417	2024-08-17 08:14:41
2	Syams Nashrullah	syams@ait.asia	66652155537	
3	Thanaphol Boodchuang	thanaphol@ait.asia	0936724741	2024-08-15 09:36:22

DASHBOARD

 Overview

MANAGE

 EOR Management

 DAN Management

 Summary

ACCOUNT

 Change Password

















































MAINTENANCE

 User Manual

Contact & Report

 Email

3. Click the **Download** button to download the data from the data provider. You may have to select from a list of available datasets.

Organization	Area (Km ²)	Status				Remark	Shapefile	Data																																			
		Acknowledge	Planned	Processed	Uploaded																																						
 Indian Space Research Organization (ISRO)	0	✓	✓	✓	✓	<div><div><div>Storage</div><div>Shapefile & Datafile</div></div><table><thead><tr><th>File Name</th><th>Size (MB)</th><th>Disk</th><th>Date</th><th>Download</th></tr></thead><tbody><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>2686.902903</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-14 06:42:57</td><td></td></tr><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>472.906000</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-14 06:53:21</td><td></td></tr><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>2487.63008</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-14 06:53:41</td><td></td></tr><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>474.838030</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-15 13:27:13</td><td></td></tr><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>2487.63008</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-15 13:26:30</td><td></td></tr><tr><td>4459v1a1-5u48-4796-915c-3a2c...</td><td>0.000000</td><td>20240803-Bhutan Flood Landslide-00033</td><td>2024-08-14 06:28:18</td><td></td></tr></tbody></table></div>	File Name	Size (MB)	Disk	Date	Download	4459v1a1-5u48-4796-915c-3a2c...	2686.902903	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:42:57		4459v1a1-5u48-4796-915c-3a2c...	472.906000	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:53:21		4459v1a1-5u48-4796-915c-3a2c...	2487.63008	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:53:41		4459v1a1-5u48-4796-915c-3a2c...	474.838030	20240803-Bhutan Flood Landslide-00033	2024-08-15 13:27:13		4459v1a1-5u48-4796-915c-3a2c...	2487.63008	20240803-Bhutan Flood Landslide-00033	2024-08-15 13:26:30		4459v1a1-5u48-4796-915c-3a2c...	0.000000	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:28:18			
File Name	Size (MB)	Disk	Date	Download																																							
4459v1a1-5u48-4796-915c-3a2c...	2686.902903	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:42:57																																								
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4459v1a1-5u48-4796-915c-3a2c...	0.000000	20240803-Bhutan Flood Landslide-00033	2024-08-14 06:28:18																																								
 Geo-Informatics and Space Technology Development Agency (GISTDA)	0																																										
 Vietnamese Academy of Science and Technology (VAST)	0																																										
 Korea Aerospace Research Institute (KARI)	0																																										
 Japan Aerospace Exploration Agency (JAXA)	0	✓	✓	✓	✓																																						
 Secretariat	0																																										
 Philippine Space Agency (PhilSA)	0																																										
 Taiwan Space Agency (TASA)	0	✓	✓																																								
 Centre for Remote Imaging, Sensing and Processing (CRISP)	0																																										
 Mohammed Bin Rashid Space Centre (MBRSC)	0																																										

4. Check the Message Box to be informed of the available dataset.

4. Check the Message Box to be informed of the available dataset.

SENTINEL ASIA

EMERGENCY OBSERVATION REQUEST (EOR) FORM (1/1)

Requester (your name and organization)

Your name

Ms. Sonam Lhamo

Your organization

National Center for Hydrology and Meteorology (NCHM)

Membership:

☒ JPT member ☐ ADRC member

Your phone

97502328280

Your cellular

97517411353

Your fax

Your E-mail

sonamlhamo@nchm.gov.bt

Message Box

4

ML

Ms. Sonam Lhamo 5 days ago

No observation data has been uploaded yet.

Reply

MS

Masami Sugiura 5 days ago

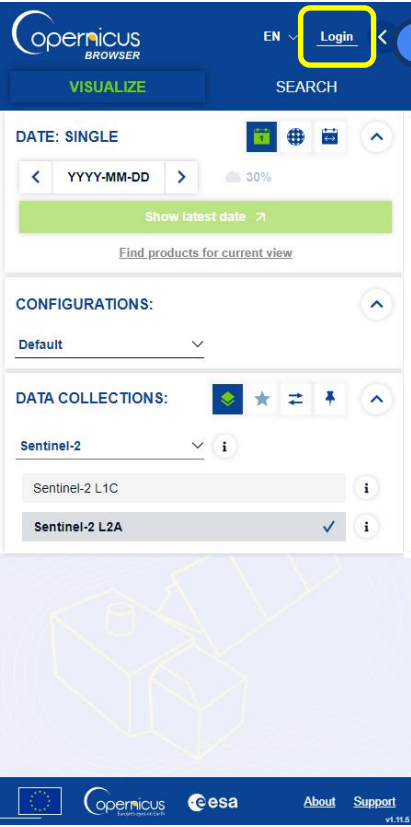
No observation data has been uploaded yet.

Please wait.

2. Copernicus Data Space Browser

1. Click [Login](#) to access the Copernicus Browser.

<https://browser.dataspace.copernicus.eu/>



Copernicus BROWSER

EN **Login**

VISUALIZE **SEARCH**

DATE: SINGLE

< YYYY-MM-DD > 30%

Show latest date ↗

Find products for current view

CONFIGURATIONS:

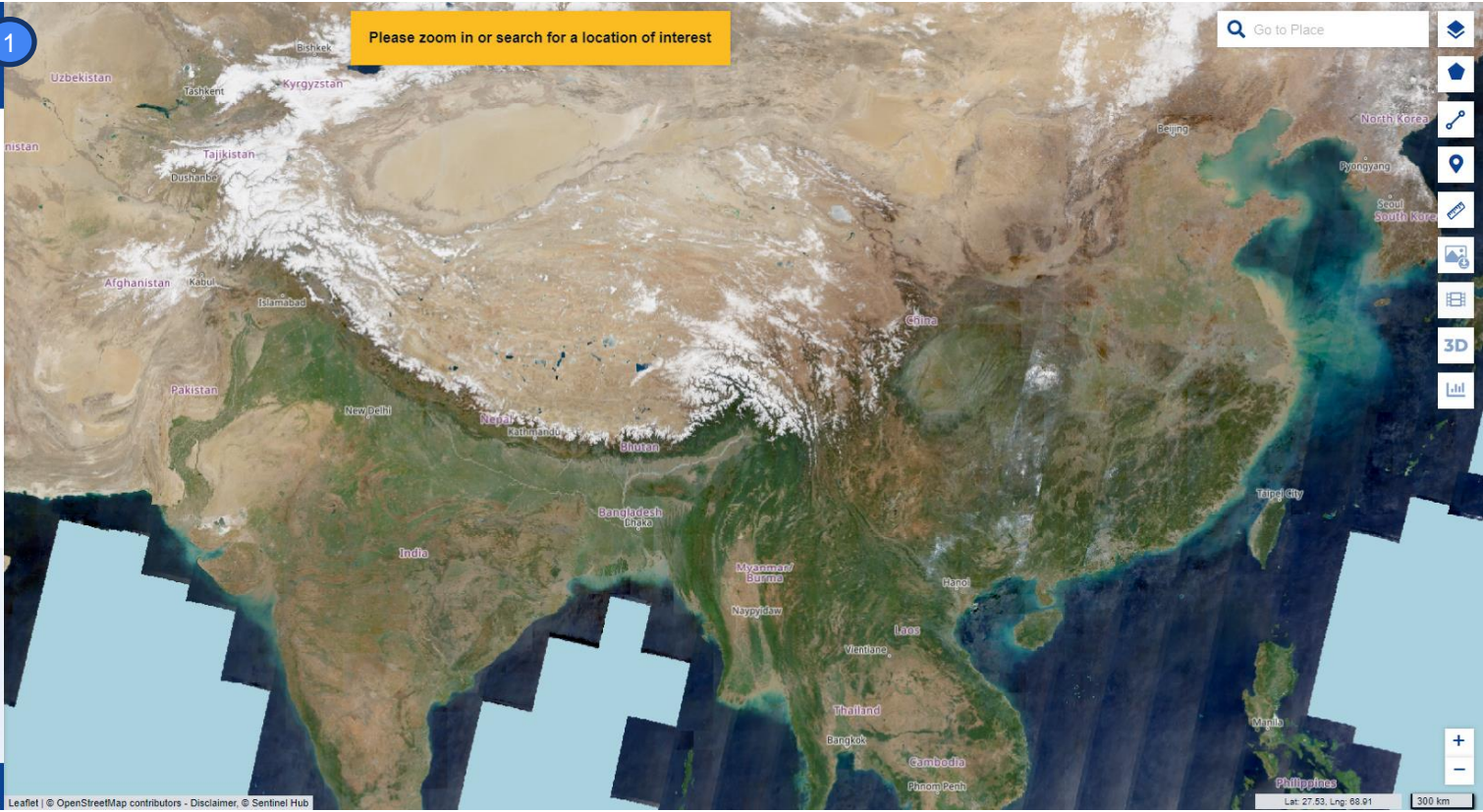
Default

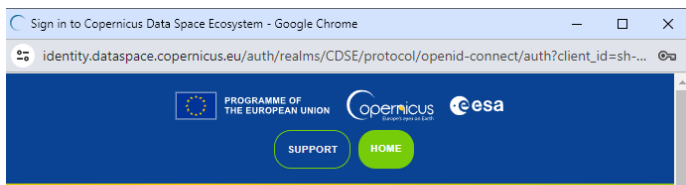
DATA COLLECTIONS:

Sentinel-2

Sentinel-2 L1C

Sentinel-2 L2A





Login to access your account

Email

syams@ait.asia

Password

[Forgot Password?](#)

LOGIN

2. If you already have an account, log in with your email address and password.

Register and create an account for free in 60 seconds

- ✓ Access a variety of Earth observation data
- ✓ Manage your personal settings
- ✓ Follow your credits and orders

3

REGISTER

3. If you don't have an account yet, please register first.



Register form

* Required fields

First name *

syams

Last name *

Nashrullah

Email *

syams@ait.asia

Password *

Confirm password *

Country *

Thailand

Type of user (you are your organisation is ?) *

Research & education organisation

Thematic activity

Land

Purpose of use

Research

☒ Accept [terms and conditions](#) and [privacy policy](#)

☒ Give the permission to contact you at the email address provided during the registration for the purpose of possible user surveys

☐ I am also interested in accessing Copernicus Contributing Missions data
The approval of your registration request depends on adherence to the [Copernicus Contributing Missions Data Policy](#). Registration under the Public user category is automatically approved.
More information can be found at [Copernicus Contributing Missions Online](#)

☒ Subscribe to the CDSE monthly mailing to receive the latest updates in your mailbox

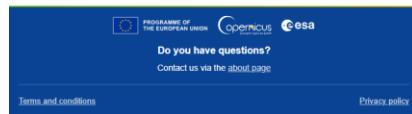
☒ I'm not a robot

☒ CAPTCHA

[Back to Login](#)

REGISTER

4. Provide detailed information for your new account.
5. Click [Register](#).
6. Check your email to complete registration



6. Define your Area of Interest (AOI) using the tools provided on the right side.
 - Enter the name of the area to limit the search window: **Lunana Gewogs, Bhutan.**
 - You can define the AOI by drawing a point, line, or polygon.
 - **Alternative:** You can upload a KML/KMZ, GPX, WKT (in EPSG:4326), or GEOJSON/JSON file to create the AOI.

6

OpenCOPERNICUS BROWSER

EN Syams Nashrullah

VISUALIZE SEARCH

DATE: SINGLE

YYYY-MM-DD 30%

Show latest date

Find products for current view

CONFIGURATIONS:

Default

DATA COLLECTIONS:

Sentinel-2

Sentinel-2 L1C

Sentinel-2 L2A

Q Lunana Gewogs, Bhutan

82.55 km²

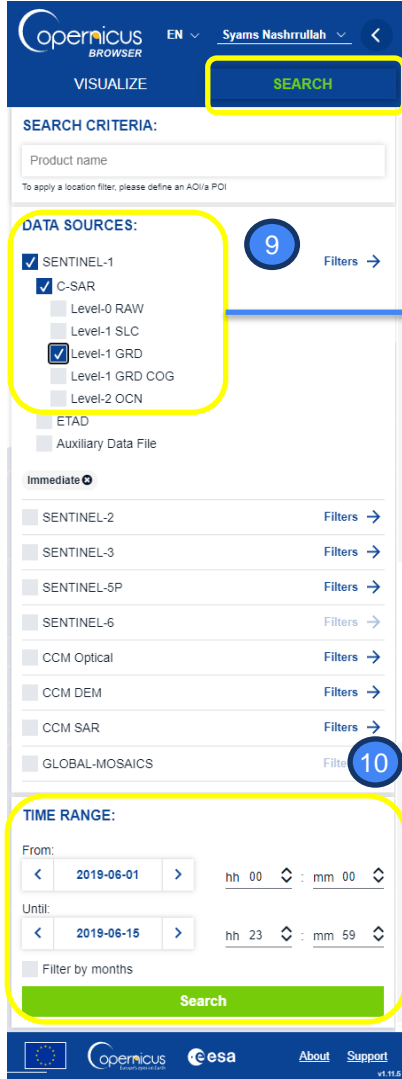
7

7. In this exercise, create the AOI by drawing a rectangle.

- Select the Polygon tool
- Create a rectangle by clicking and then dragging your mouse cursor.

Leaflet | © OpenStreetMap contributors - Disclaimer, © Sentinel Hub

Lat: 28.13170, Lng: 90.32890 1 km



SEARCH CRITERIA:

Product name

To apply a location filter, please define an AOI/a POI

DATA SOURCES:

☒ SENTINEL-1

☒ C-SAR

☐ Level-0 RAW

☐ Level-1 SLC

☒ Level-1 GRD

☐ Level-1 GRD COG

☐ Level-2 OCN

☐ ETAD

☐ Auxiliary Data File

Immediate

SENTINEL-2 Filters →

SENTINEL-3 Filters →

SENTINEL-5P Filters →

SENTINEL-6 Filters →

CCM Optical Filters →

CCM DEM Filters →

CCM SAR Filters →

GLOBAL-MOSAICS Filters →

TIME RANGE:

From: 2019-06-01 hh 00 : mm 00

Until: 2019-06-15 hh 23 : mm 59

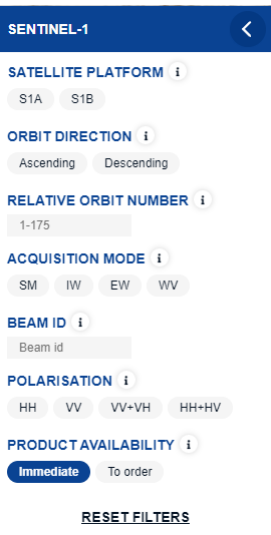
☐ Filter by months

Search

8

8. On the left side of the browser panel, click **Search**.

9



SENTINEL-1

SATELLITE PLATFORM i

S1A S1B

ORBIT DIRECTION i

Ascending Descending

RELATIVE ORBIT NUMBER i

1-175

ACQUISITION MODE i

SM IW EW WV

BEAM ID i

Beam id

POLARISATION i

HH VV VV+VH HH+HV

PRODUCT AVAILABILITY i

Immediate To order

RESET FILTERS

9. We will search for Sentinel-1 data.

- Select SENTINEL-1
- Select Level-1 GRD

Optional: You can provide a more detailed search by clicking the **Filters** button.

- Select the options for Satellite platform, Orbit direction, Relative orbit number, Acquisition mode, Beam ID, and Polarisation mode.

10

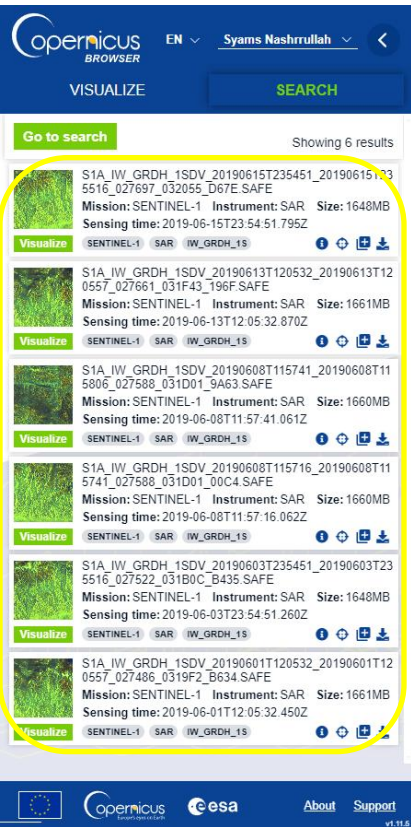
10. We will select the time range of data based on the Sentinel Asia activation for the observation of the Thorthormi Glacier Lake Breach Flood.

- Select the time range from **2016-06-01 to 2016-06-15**.
- Click **Search**.

You may see several scenes of Sentinel-1 images that cover the AOI.

11. Click one of the scenes. The selected scene will be highlighted in green, and the corresponding satellite images will pop up in the **Results** window.

12. Download your selected scenes by clicking the  icon in the **Results** window.



EN Syams Nashrullah

VISUALIZE SEARCH

Go to search Showing 6 results

Visualize S1A_IW_GRDH_1SDV_20190615T235451_20190615T035516_027697_032055_D67E.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1648MB
Sensing time: 2019-06-15T23:54:51.795Z

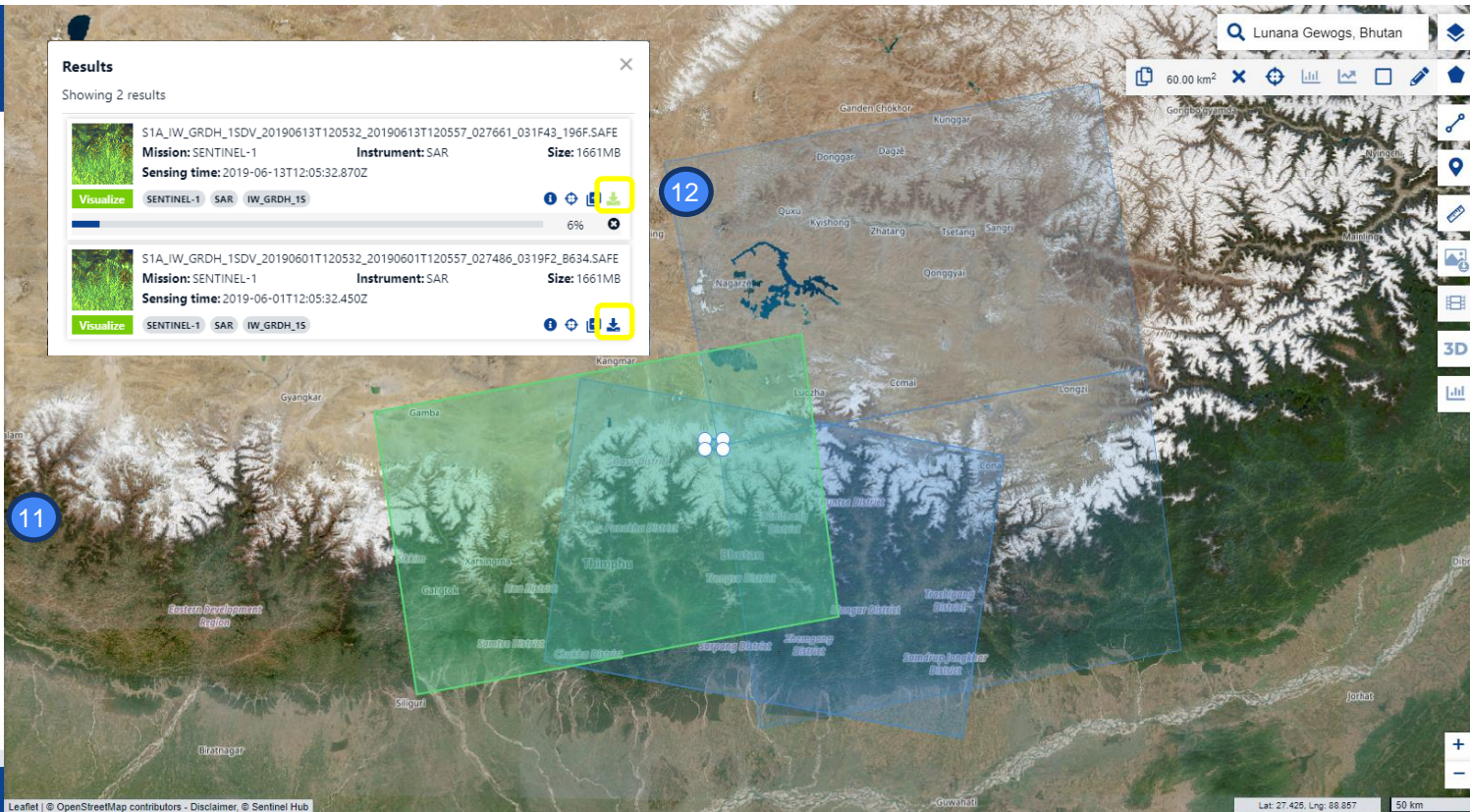
Visualize S1A_IW_GRDH_1SDV_20190613T120532_20190613T120557_027661_031F43_196F.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1661MB
Sensing time: 2019-06-13T12:05:32.870Z

Visualize S1A_IW_GRDH_1SDV_20190608T115741_20190608T115806_027588_031D01_9A63.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1660MB
Sensing time: 2019-06-08T11:57:41.061Z

Visualize S1A_IW_GRDH_1SDV_20190608T115716_20190608T115741_027588_031D01_00C4.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1660MB
Sensing time: 2019-06-08T11:57:16.062Z

Visualize S1A_IW_GRDH_1SDV_20190603T235451_20190603T235516_027522_031B0C_B435.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1648MB
Sensing time: 2019-06-03T23:54:51.260Z

Visualize S1A_IW_GRDH_1SDV_20190601T120532_20190601T120557_027486_0319F2_B634.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1661MB
Sensing time: 2019-06-01T12:05:32.450Z



Results Showing 2 results

Visualize S1A_IW_GRDH_1SDV_20190613T120532_20190613T120557_027661_031F43_196F.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1661MB
Sensing time: 2019-06-13T12:05:32.870Z

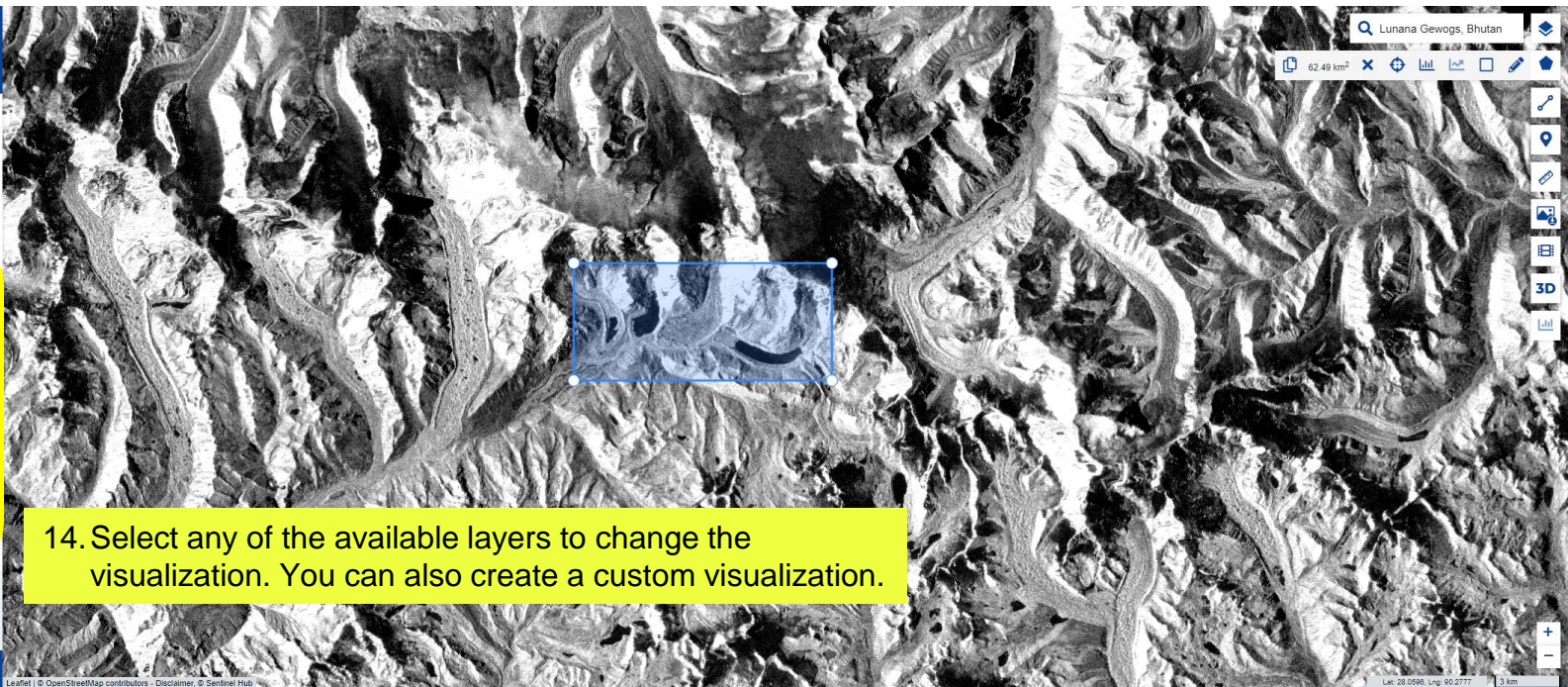
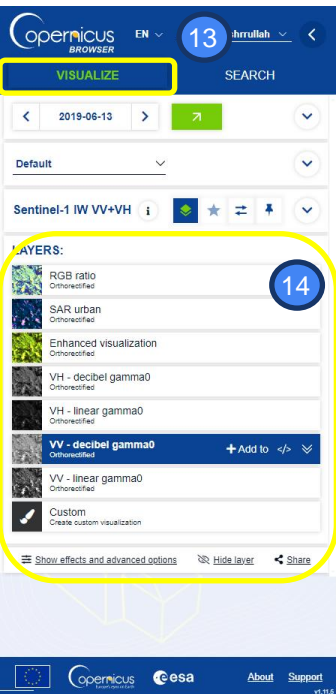
Visualize S1A_IW_GRDH_1SDV_20190601T120532_20190601T120557_027486_0319F2_B634.SAFE
Mission: SENTINEL-1 Instrument: SAR Size: 1661MB
Sensing time: 2019-06-01T12:05:32.450Z

Lunana Gewogs, Bhutan

60.00 km²

Lat: 27.425, Lng: 88.867 50 km

13. To explore the data, you can click the **Visualize** button in any of the result image scenes.



14. Select any of the available layers to change the visualization. You can also create a custom visualization.

3. ASF Data Search Vertex

<https://search.asf.alaska.edu/>

Search Type

Geographic Search

Dataset

Sentinel-1

Area of Interest • WKT

Start Date

MM/DD/YYYY

End Date

MM/DD/YYYY

Filters

...

SEARCH

250

of 19,081,150 Files

On Demand

Downloads

Help

English

Sign In

Feedback

Map View

+

-

Layers

Area Of Interest

Opacity

100%

lat 27.7237° lon 84.3477°

100 km

1

Click to start drawing

2

1. Click [Sign In](#) to access the ASF Data Search Vertex.

3

2. If you already have Earthdata account, sign in with your username and password.

3. If not, please register first.

Earthdata Login - Google Chrome

urs.earthdata.nasa.gov/oauth/authorize?response_type=code&client_id=BO_n7nT...

Alaska Satellite Facility: making remote-sensing data accessible

2

Username

hashr1

Password

.....

Stay signed in (this is a private workstation)

LOG IN

REGISTER

I don't remember my username

I don't remember my password

Help

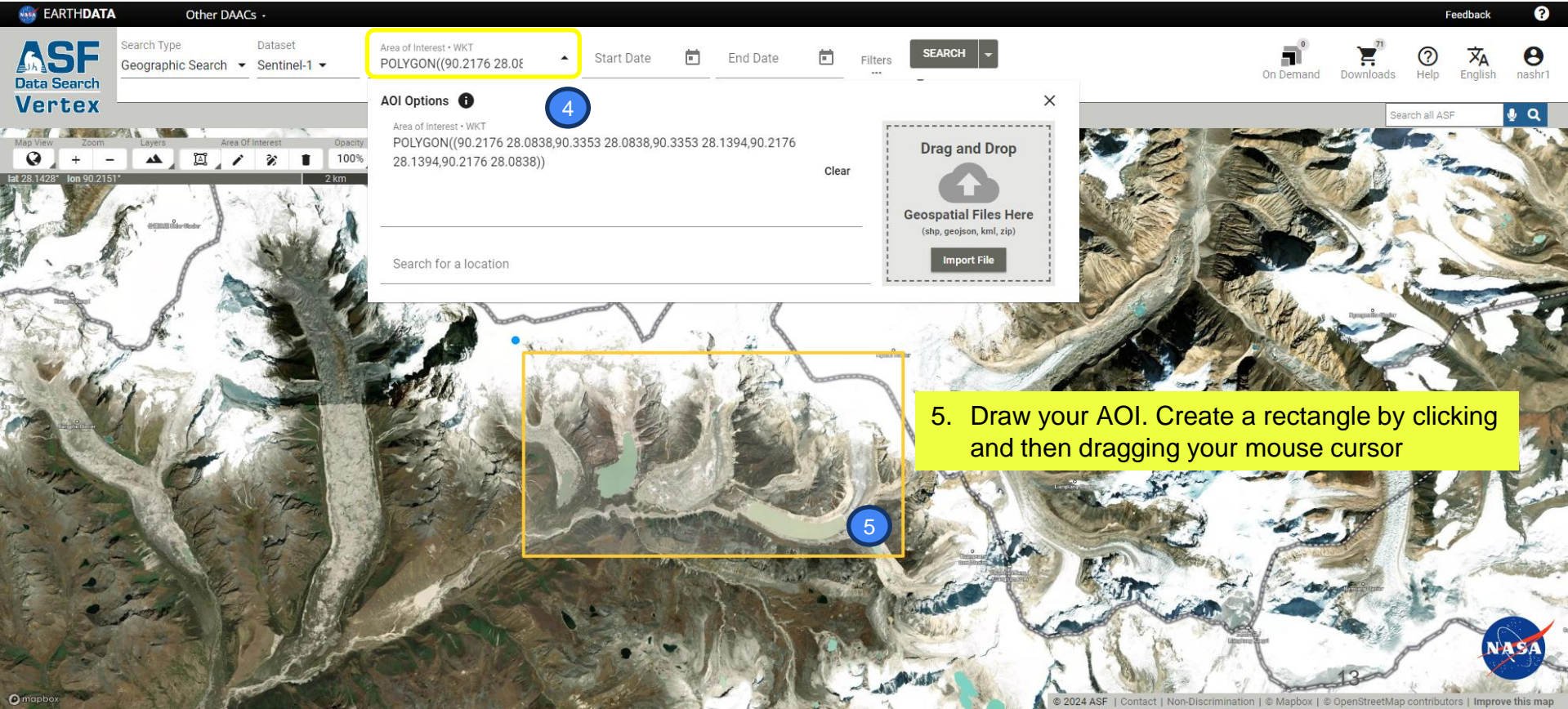
Why must I register?

3

© 2024 ASF | Contact | Non-Discrimination | Mapbox | OpenStreetMap contributors | Improve this map

4. Define your Area of Interest (AOI).

- You can define the AOI by drawing a point, line, or polygon.
- **Alternative:** You can upload a .shp, .geojson, .kml, or .zip file to create the AOI.



The screenshot displays the ASF Data Search Vertex web application interface. The top navigation bar includes the NASA EarthData logo, a search type dropdown set to 'Geographic Search', a dataset dropdown set to 'Sentinel-1', and a search button. A yellow box highlights the 'Area of Interest - WKT' field, which contains the text 'POLYGON((90.2176 28.0838, 90.2176 28.0838, 90.2176 28.0838, 90.2176 28.0838))'. A blue circle with the number '4' is placed over the 'Area of Interest - WKT' label. Below this, a 'Drag and Drop' box prompts users to upload geospatial files (.shp, .geojson, .kml, .zip). The main map area shows a satellite view of a mountainous region with a yellow rectangle drawn over a lake, indicating the defined AOI. A blue circle with the number '5' is placed over the bottom-right corner of this rectangle. The bottom of the page features a footer with copyright information and a 'mapbox' logo.


- #### 5. Draw your AOI. Create a rectangle by clicking and then dragging your mouse cursor

6. Select the satellite data.

- ASF Vertex offers several options for satellite data, including Sentinel-1, ALOS PALSAR, ALOS AVNIR-2, and more.







ASF
Data Search
Vertex

Search Type
Geographic Search



Map View Zoom Layers Area Of Interest

lat 28.1993° lon 90.1764°

Sentinel-1 Sentinel-1 includes twin satellites that each carry C-band synthetic aperture radar (SAR), together providing all-weather, day-and-night imagery of Earth's surface. More Info	2014 to Present  ESA
S1 Bursts (beta) Sentinel-1 BURST products are the individual radar pulse responses that make up the 3 sub-swaths of every Sentinel-1 SLC product. More Info	2014 to Present  ESA
OPERA-S1 Sentinel-1 RTC backscatter products providing near-global coverage, as well as Sentinel-1 CSLC products covering North America. More Info	2014 to Present  OPERA-JPL
ALOS PALSAR PALSAR was developed to contribute to the fields of mapping, precise regional land-coverage observation, disaster monitoring, and resource surveying. More Info	2006 to 2011  JAXA/METI
ALOS AVNIR-2 Advanced Visible and Near-Infrared Radiometer (AVNIR)-2 images have removed distortions caused by the sensor and terrain. This allows the overlay of More Info	2006 to 2011  JAXA
SIR-C (beta) The instrument was flown aboard two of the space shuttle Endeavour's missions. The instrument monitored and assessed large-scale environmental processes. More Info	1994  NASA

6

End Date
MM/DD/YYYY

Filters

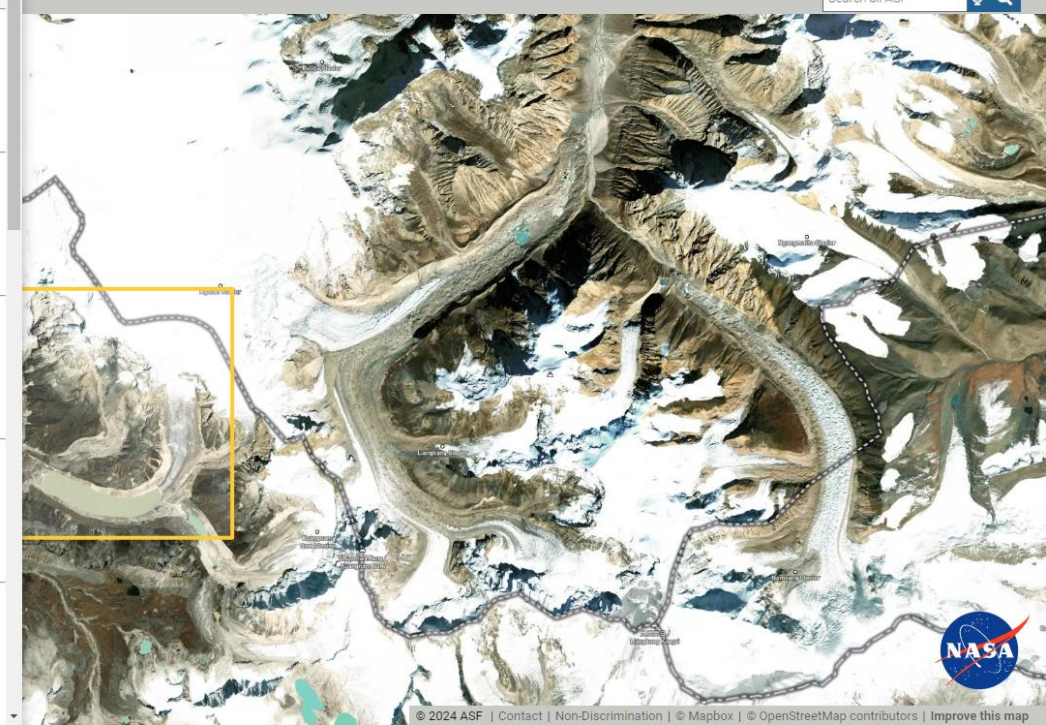
SEARCH

of 7,272 Files

Feedback

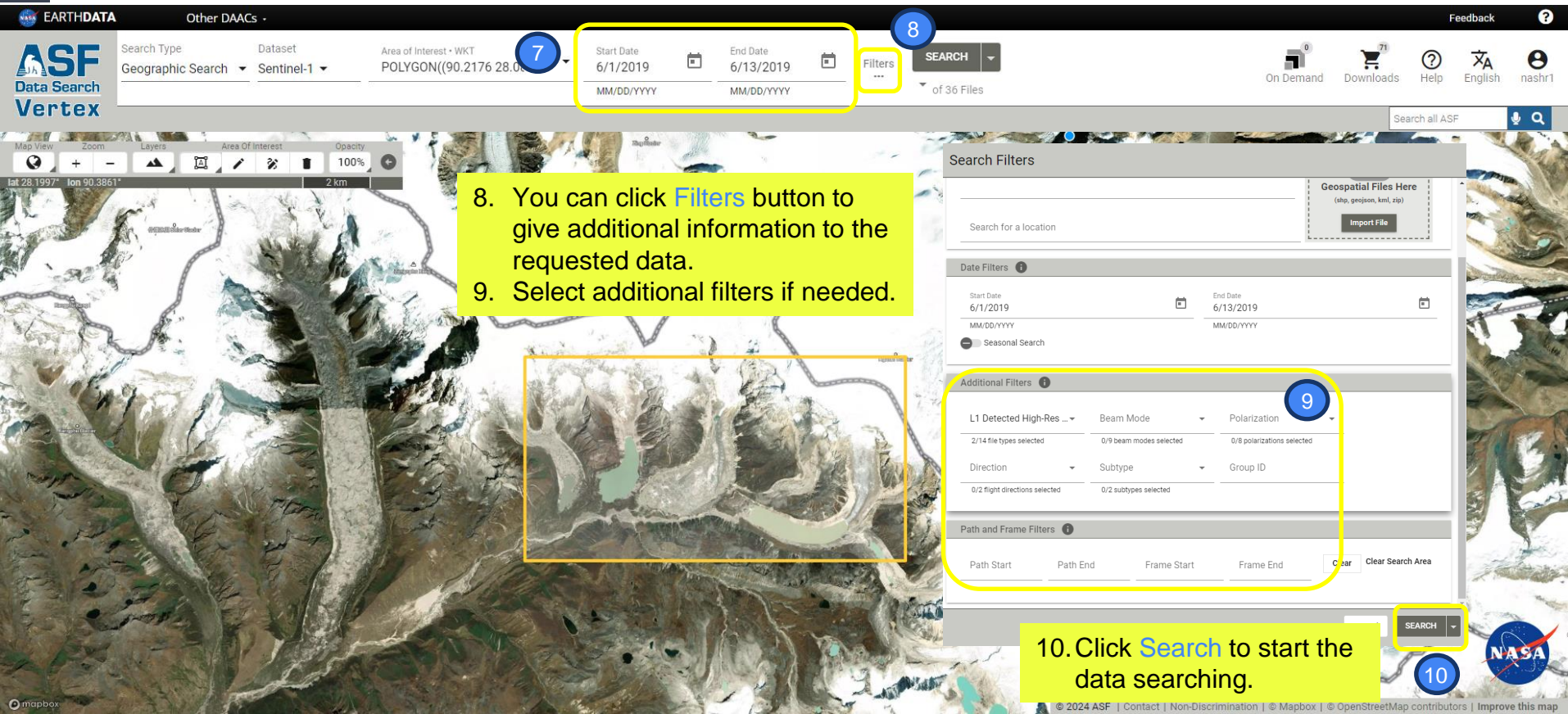
On Demand Downloads Help English nashri

Search all ASF



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7. Define the observation date.
- Start Date and End Date.




The screenshot shows the NASA EarthData ASF Data Search Vertex web application. The interface includes a top navigation bar with the NASA logo, 'EARTHDATA', and 'Other DAACs'. Below this is a search bar with 'Geographic Search' selected. A search area is defined by a polygon with coordinates (90.2176 28.0). The 'Start Date' is set to 6/1/2019 and the 'End Date' is 6/13/2019. A 'Filters' button is highlighted with a yellow box and a blue circle with the number 8. The main map area shows a satellite image of a mountainous region. A yellow box highlights a specific area on the map. On the right side, there is a 'Search Filters' panel with sections for 'Date Filters', 'Additional Filters', and 'Path and Frame Filters'. The 'Additional Filters' section is highlighted with a yellow box and a blue circle with the number 9. At the bottom right, a 'SEARCH' button is highlighted with a yellow box and a blue circle with the number 10. The bottom of the page contains a footer with copyright information and a 'mapbox' logo.

7. Define the observation date.
- Start Date and End Date.

8. You can click [Filters](#) button to give additional information to the requested data.

9. Select additional filters if needed.

10. Click [Search](#) to start the data searching.



Search Type

Geographic Search

Dataset

Sentinel-1

Area of Interest - WKT

POLYGON((90.2176 28.0

Start Date

6/1/2019

End Date

6/13/2019

Filters

...

SEARCH

▼

of 5 Files

On Demand

Downloads

Help

English

nashr1

File Types: GRD_HD,GRD_HS

Search all ASF

Map View

Zoom

Layers

Area Of Interest

Opacity

100%

Lat 26.6695°

Lon 96.7844°

100 km

Approximate Placement Only

11. All available datasets based on your search filter will be shown here.

5 Scenes

(5 of 5 Files)

S1A_IW_GRDH_1SDV_20190613T120532... 196F

June 13, 2019, 12:05:32Z

11

S1A_IW_GRDH_1SDV_20190608T11574... 9A63

June 8, 2019, 11:57:41Z

0/1

S1A_IW_GRDH_1SDV_20190608T11571... 00C4

June 8, 2019, 11:57:16Z

0/1

S1A_IW_GRDH_1SDV_20190603T23545... B435

June 3, 2019, 23:54:51Z

0/1

S1A_IW_GRDH_1SDV_20190601T12053... B634

June 1, 2019, 12:05:32Z

0/1

Scene Detail

1 File

13

Download

S1A_IW_GRDH_1SDV_20190601T120532_20190601T120557_027486_0319F2_B634

Sentinel-1 • C-Band

Start Time • 06/01/2019, 12:05:32Z

Stop Time • 06/01/2019, 12:05:57Z

Beam Mode • IW

Path • 114

Frame • 86

Flight Direction • ASCENDING

Polarization • VV+VH

Absolute Orbit • 27486

PGE Version • 2.91

Data courtesy of ESA

Citation

12

L1 Detected High-Res Dual-Pol (GRD-HD)

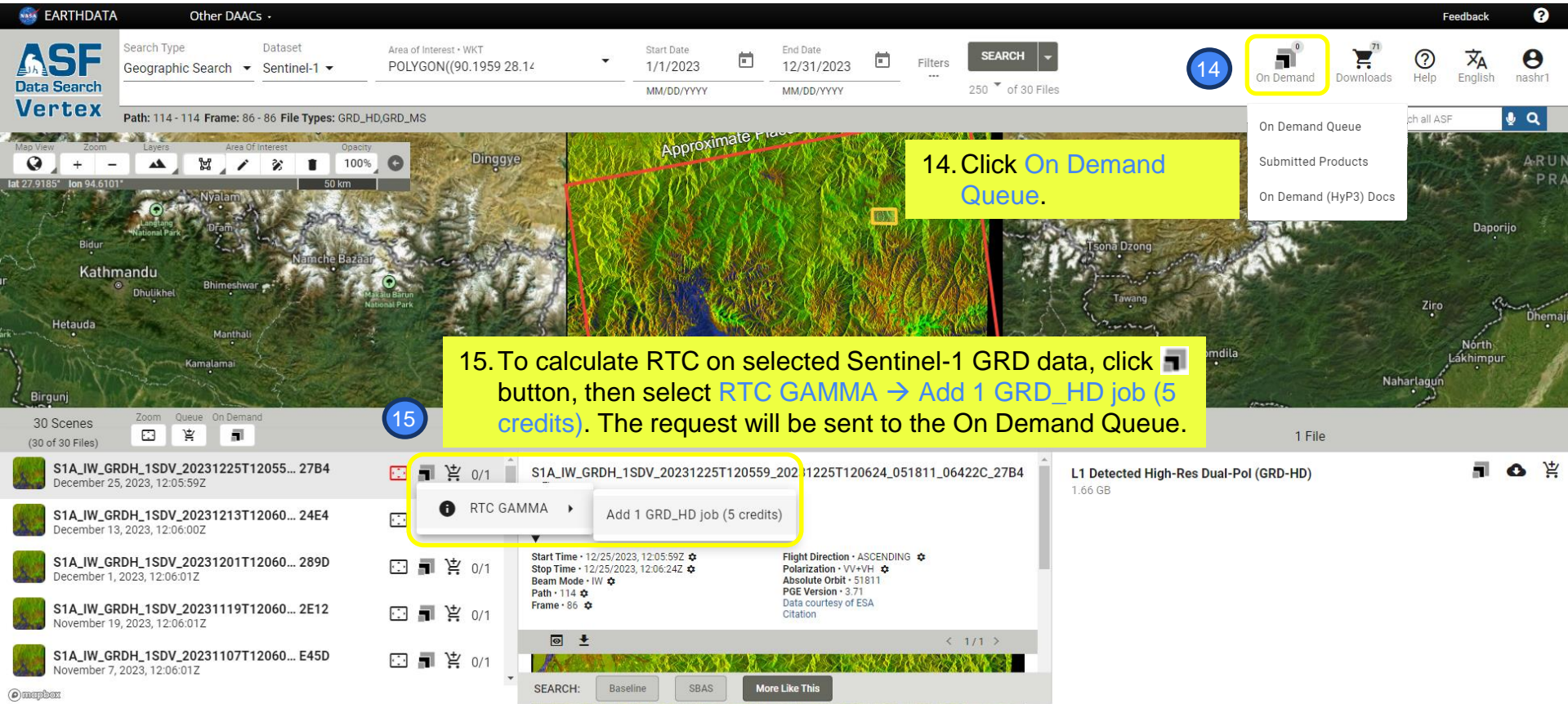
979.53 MB

13. Click Download button to download the selected data.

11. When you select one of the available datasets, detailed information will be shown here.

Other than downloading the satellite data, ASF Vertex also provides on-demand services such as:

- Radiometric Terrain Correction (RTC) for a single Sentinel-1 GRD data.
- Interferometric SAR (InSAR) for Sentinel-1 SLC data pair.
- autoRIFT for Sentinel-1 SLC data pair.



ASF Data Search Vertex

Search Type: Geographic Search | Dataset: Sentinel-1 | Area of Interest: WKT POLYGON((90.1959 28.14 | Start Date: 1/1/2023 | End Date: 12/31/2023 | Filters: 250 of 30 Files

Path: 114 - 114 Frame: 86 - 86 File Types: GRD_HD,GRD_MS

14. Click On Demand Queue.

15. To calculate RTC on selected Sentinel-1 GRD data, click **RTC GAMMA** button, then select **RTC GAMMA → Add 1 GRD_HD job (5 credits)**. The request will be sent to the On Demand Queue.

30 Scenes (30 of 30 Files)

1

S1A_IW_GRDH_1SDV_20231225T12055... 27B4
December 25, 2023, 12:05:59Z

S1A_IW_GRDH_1SDV_20231213T12060... 24E4
December 13, 2023, 12:06:00Z

S1A_IW_GRDH_1SDV_20231201T12060... 289D
December 1, 2023, 12:06:01Z

S1A_IW_GRDH_1SDV_20231119T12060... 2E12
November 19, 2023, 12:06:01Z

S1A_IW_GRDH_1SDV_20231107T12060... E45D
November 7, 2023, 12:06:01Z

0/1

RTC GAMMA → Add 1 GRD_HD job (5 credits)

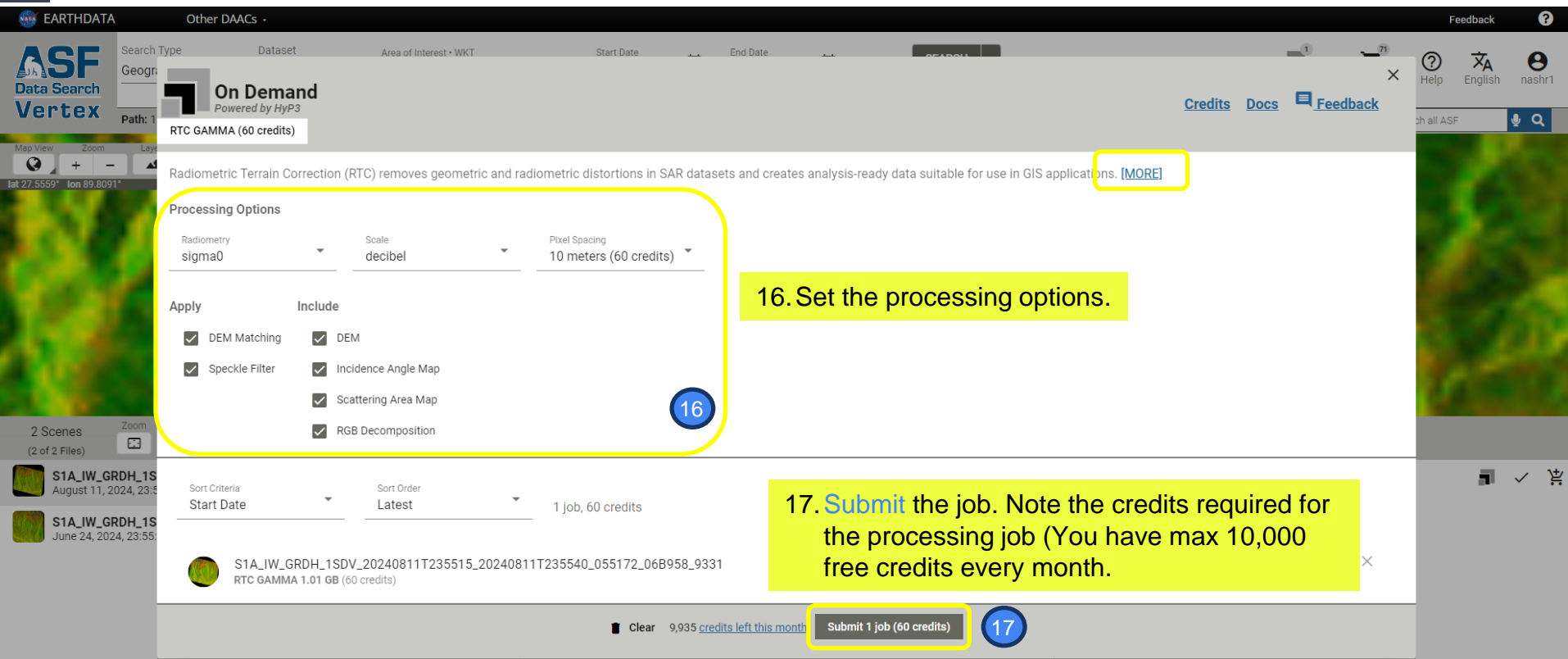
Start Time • 12/25/2023, 12:05:59Z
Stop Time • 12/25/2023, 12:06:24Z
Beam Mode • IW
Path • 114
Frame • 86

Flight Direction • ASCENDING
Polarization • VV+VH
Absolute Orbit • 51811
PGE Version • 3.71
Data courtesy of ESA
Citation

L1 Detected High-Res Dual-Pol (GRD-HD)
1.66 GB

SEARCH: Baseline SBAS More Like This

ASF's Sentinel-1 On-Demand RTC products are generated using GAMMA Software. Click [MORE] to get detailed information on the processing options and workflows.



The screenshot shows the ASF Data Search Vertex interface. The main content area displays the 'On Demand' processing options for 'RTC GAMMA (60 credits)'. The 'Processing Options' section includes dropdowns for Radiometry (sigma0), Scale (decibel), and Pixel Spacing (10 meters (60 credits)). Below these are checkboxes for 'Apply' and 'Include' options: DEM Matching, Speckle Filter, DEM, Incidence Angle Map, Scattering Area Map, and RGB Decomposition. A blue circle with the number '16' is placed next to the 'Include' options. To the right of the 'Processing Options' section, a yellow box contains the text '16. Set the processing options.' Below the 'Processing Options' section, the 'Sort Criteria' and 'Sort Order' are set to 'Start Date' and 'Latest' respectively. The '1 job, 60 credits' status is shown. A list of jobs is displayed, with the first job being 'S1A_IW_GRDH_1SDV_20240811T235515_20240811T235540_055172_06B958_9331' with a status of 'RTC GAMMA 1.01 GB (60 credits)'. A blue circle with the number '17' is placed next to the 'Submit 1 job (60 credits)' button. To the right of the job list, a yellow box contains the text '17. Submit the job. Note the credits required for the processing job (You have max 10,000 free credits every month.)' The bottom of the interface shows a search bar with 'SEARCH:' and buttons for 'Baseline', 'SBAS', and 'More Like This'.

ASF's Sentinel-1 On-Demand RTC products are generated using GAMMA Software. Click [MORE] to get detailed information on the processing options and workflows.

Processing Options

Radiometry: sigma0
Scale: decibel
Pixel Spacing: 10 meters (60 credits)

Apply: ☒ DEM Matching, ☒ Speckle Filter
Include: ☒ DEM, ☒ Incidence Angle Map, ☒ Scattering Area Map, ☒ RGB Decomposition

16. Set the processing options.

Sort Criteria: Start Date, Sort Order: Latest, 1 job, 60 credits

S1A_IW_GRDH_1SDV_20240811T235515_20240811T235540_055172_06B958_9331
RTC GAMMA 1.01 GB (60 credits)

17. Submit the job. Note the credits required for the processing job (You have max 10,000 free credits every month.)

Submit 1 job (60 credits)

4. Other Data Sources

Satellite data sources

- International Disaster Charter: <https://disasterscharter.org/>
- NASA's Earth Data: <https://search.earthdata.nasa.gov/search>
- USGS's Earth Explorer: <https://earthexplorer.usgs.gov/>
- Google Earth Engine: <https://earthengine.google.com/>
- SentinelHub: <https://custom-scripts.sentinel-hub.com/>

GIS data sources

- OpenStreetMap: <https://download.geofabrik.de/>
- Humanitarian Data Exchange (HDX): <https://data.humdata.org/>
- SRTM DEM 30m: <http://dwtkns.com/srtm30m/>
- WorldPop: <https://www.worldpop.org/>
- Global Administrative Areas (GADM): <http://www.gadm.org/country>

THANK YOU

Geoinformatics Center, Asian Institute of Technology

