

National Aeronautics
and
Space Administration

EARTHDATA

Data Access Demo

ICESat-2/ATLAS and
SnowEx Data

Earthdata Search

Mikala Beig

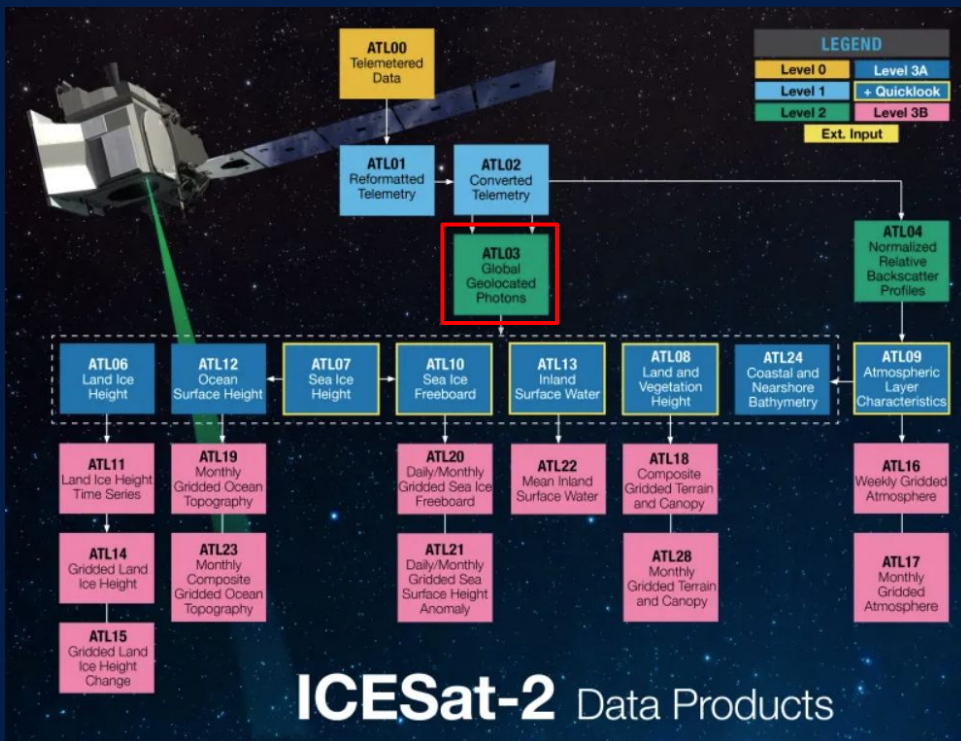


Data access methods from previous webinars

Laser altimetry applications for a changing world:	Data access method
Explore ICESat-2 Data	OpenAltimetry web application
Working with ICESat-2 Land and Vegetation Height Data	SlideRule Earth web application and Python client
Working with ICESat-2 Bathymetry Data	SlideRule Earth web application and Python client
Working with ICESat-2 Sea Ice Data	earthaccess Python library
Working with ICESat-2 Inland Surface Water Data	icepyx Python library



ATLAS/ICESat-2 L2A Global Geolocated Photon Data (ATL03, Version 7)



Mission overview

<https://nsidc.org/data/icesat-2>

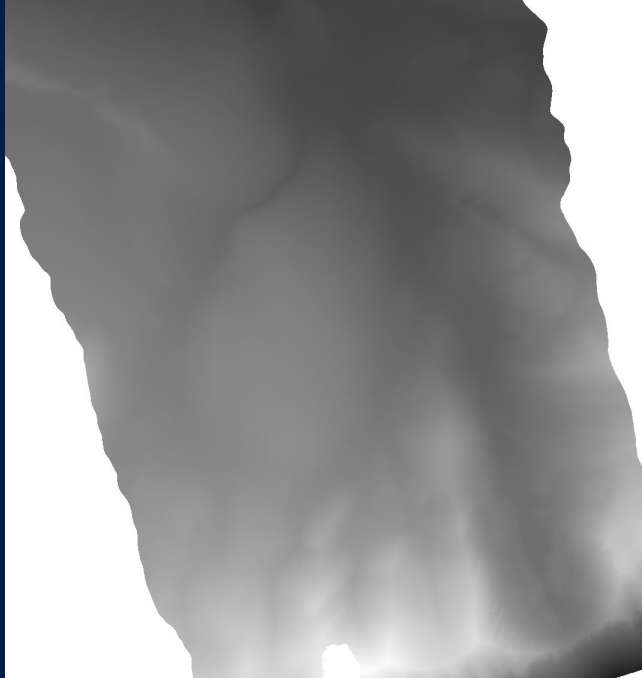
Date set landing page

<https://nsidc.org/data/atl03/versions/7>

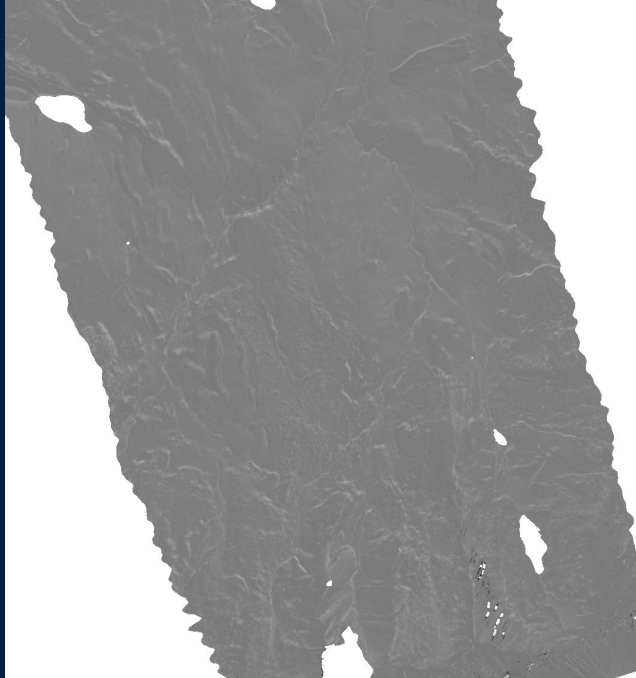


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SnowEx23 Airborne Lidar-Derived 0.5M Snow Depth and Canopy Height, Version 1



Snow off DTM



Snow depth from
airborne lidar

Mission overview

<https://nsidc.org/data/snowex>

Data set landing page

https://nsidc.org/data/snex23_lidar/versions/1



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Data set specific landing pages

ATLAS/ICESat-2 L2A Global Geolocated Photon Data, Version 7

DATA SET ID: ATL03
DOI: 10.5067/ATLAS/ATL03.007

Data Set HTTPS Link
https://cmr.earthdata.nasa.gov/virtual-directory/collections/C3326974349-NSIDC_CPRD

[USER GUIDE](#) [CITATION](#) [SUBSCRIBE](#) [SERVICE](#)

This is the most recent version of these data. [Version Summary](#)

Overview

ATL03 contains height above the WGS 84 ellipsoid, latitude, longitude, and time for each photon downlinked by the Advanced Topographic Laser Altimeter System (ATLAS) instrument on board ICESat-2. This product was designed to be a single source for all photon data and ancillary information needed by higher-level ATLAS/ICESat-2 products.

Parameter(s): TERRAIN ELEVATION
Platform(s): ICESat-2
Sensor(s): ATLAS

- Overview
- Data Access & Tools
- Documentation
- Help Articles

User Guide:
Comprehensive product documentation on file structure, variable info, data acquisition, etc.

Citation:
Preformatted citation to copy

Subscribe:
Sign up to receive email updates of the data set

Data set specific landing pages

The screenshot shows the EarthData website interface. At the top, there is a navigation bar with the EarthData logo, a dropdown menu for 'Other DAACs', and a search icon. Below this is a secondary navigation bar with the NSIDC logo and the text 'National Snow and Ice Data Center a part of CIRES at the University of Colorado Boulder'. The main navigation menu includes 'NEWS & ANALYSES', 'DATA', 'OUR RESEARCH', 'LEARN', and 'ABOUT'. The main content area features a large blue header with the title 'ATLAS/ICESat-2 L2A Global Geolocated Photon Data, Version 7' and the NASA logo. Below the title, the data set ID 'ATL03' and DOI '10.5067/ATLAS/ATL03.007' are listed. A section for the 'Data Set HTTPS Link' provides the URL 'https://cmr.earthdata.nasa.gov/virtual-directory/collections/C3326974349-NSIDC_CPRD'. A row of four circular icons represents 'USER GUIDE', 'CITATION', 'SUBSCRIBE', and 'SERVICE'. A note states 'This is the most recent version of these data. Version Summary'. The 'Overview' section contains a paragraph describing the data set and lists 'Parameter(s): TERRAIN ELEVATION', 'Platform(s): ICESat-2', and 'Sensor(s): ATLAS'. On the right side, a vertical menu highlights 'Data Access & Tools', 'Documentation', and 'Help Articles'.

EARTHDATA | Other DAACs -

NSIDC National Snow and Ice Data Center
a part of CIRES at the University of Colorado Boulder

NEWS & ANALYSES ▾ DATA ▾ OUR RESEARCH LEARN ▾ ABOUT ▾

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USER GUIDE CITATION SUBSCRIBE SERVICE

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Platform(s): ICESat-2
Sensor(s): ATLAS

Overview
Data Access & Tools
Documentation
Help Articles

Access:
Tools and services for accessing the data

Documentation:
Known issues, ATBDs, Data dictionaries, User guides

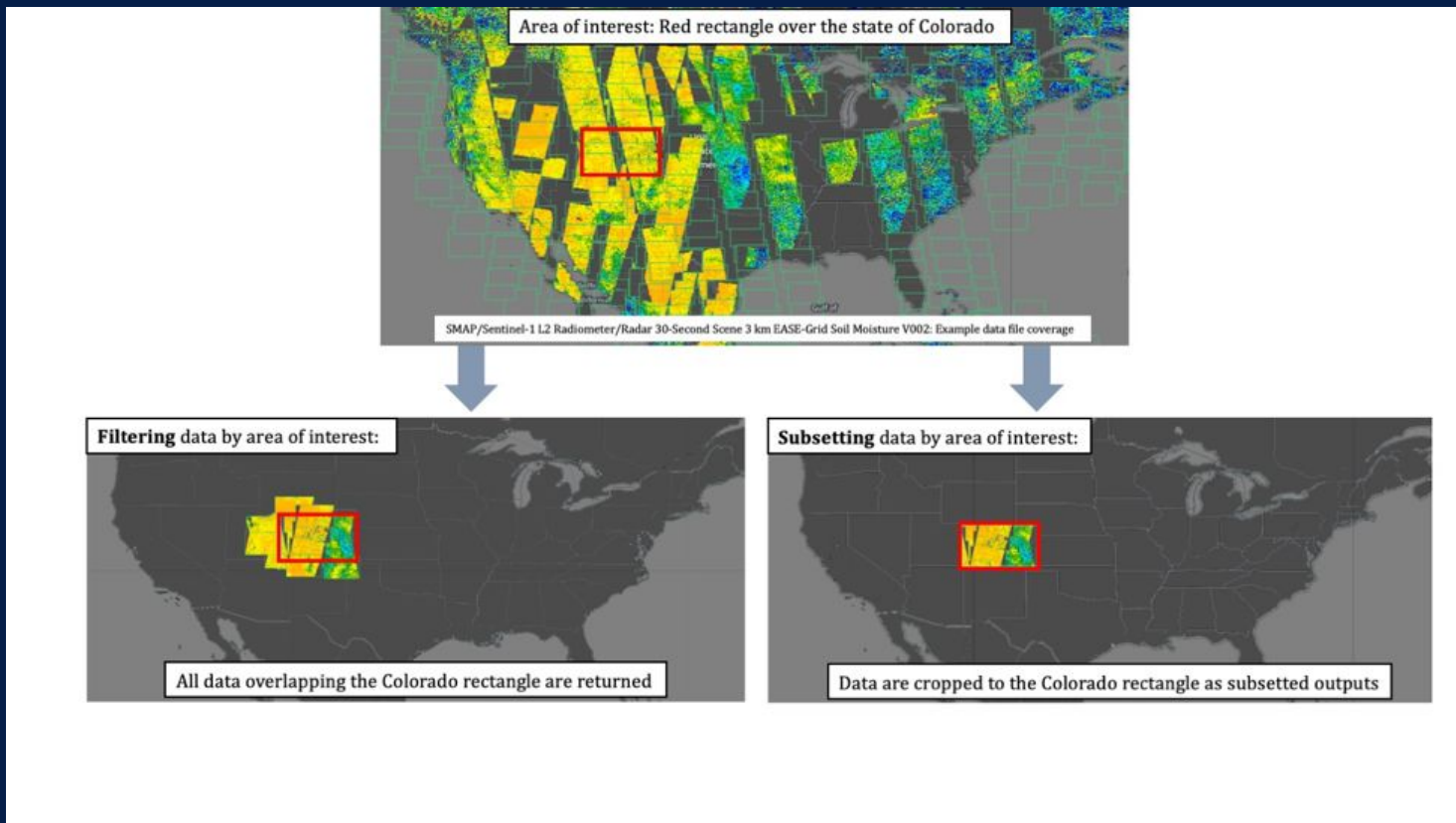
Help articles:
Useful information for the data product

NASA Earthdata Search

- Discover, visualize, and access petabytes of Earth observing data from all NASA DAACs.
- Filter data by mission, keyword, spatial and temporal range, filename, etc.
- Provides customization services (e.g., subsetting) for select data sets.

The screenshot displays the NASA Earthdata Search interface. The search query is 'at03 v007'. The search results are for 'ATLAS/ICESat-2 L2A Global Geolocated Photon Data V007', showing 20 of 102 matching granules. The interface includes a search bar, filters for Temporal and Spatial, and a list of granules with their start and end times. A map on the right shows the search area over the Arctic region, with a blue rectangle indicating the selected area. The bottom of the interface features a timeline from 2019 to 2027 and a footer with navigation links and accessibility information.

Filtering vs. Subsetting



Earthdata Search - Data Access Demo

Prerequisite - Earthdata Login

<https://urs.earthdata.nasa.gov/>

NASA Earthdata Search

<https://search.earthdata.nasa.gov/>



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Questions?

Have a question about ICESat-2 or SnowEx data?

Need help understanding the best data access method for your workflow?

Reach out to us at:

nsidc@nsidc.org

OR

[NASA Earthdata Forum](#)



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Demo

ATL03 search - over Toolik area

68.5,-149.6 (SE)

68.7,-149.2 (NW)

March 2023

SnowEx 2023 lidar search

UKT wildcard in granule name

March 2023



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