# Ice, Cloud, and Land Elevation Satellite-2 Quick Look Products

#### ICESat-2

The Ice, Cloud, and Land Elevation Satellite-2 (ICESat-2) mission provides global elevation data using the Advanced Topographic Laser Altimeter System (ATLAS). ATLAS is a photon-counting laser altimeter that sends 10,000 laser pulses per second to the Earth's surface, and uses individual photons returning to ATLAS to determine the elevation of the Earth surface. Leveraging this rapid-firing laser, ICESat-2 provides a detailed look into heights of Earth's features including ice sheets, glaciers, vegetation, clouds, oceans, and land surfaces.

ICESat-2 data benefits the community through:

- Measuring the variability in ice sheet height to study their effects on sea level rise
- Measuring sea ice freeboard to provide the third dimension to the seasonally-changing polar sea ice
- Calculating the height of vegetation to investigate fluctuations in biomass
- Providing more information on cloud heights and composition to further the field of cloud physics
- Providing elevation data around the globe in unprecedented detail

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## ICESat-2 Quick Look Products

Standard ICESat-2 Data Products	ATL01, ATL02	ATLo3, ATLo4	ATLo6, ATLo7, ATLo8, ATLo9, ATL10, ATL12, ATL13	ATL11, ATL14, ATL15, ATL16, ATL17, ATL18, ATL19, ATL20, ATL21
Level	1	2	3A	3B
Latency	2 days	21 days	45 days	
Temporal Coverage	10/13/2018 - present		Varies; 10/13/2018 - present	
Quick Look (QL) ICESat-2 Data Products			QL-ATL07, QL-ATL08, QL-ATL09, QL-ATL10, QL-ATL13	
Latency			< 72 hours	
Coverage	88°N - 88°S			
Spatial Resolution	N/A	Varies: 70 cm - 280 m	Varies; 20 m - 280 m	Varies; 60 m - 25 km, 1-20 deg
Temporal resolution	N/A	9	Varies; 7 days - 91 days	
Data Format	HDF5			

### How do I access this data?

ICESat-2 data is maintained by NASA's NSIDC, including algorithm technical details, data access and training examples.

### Where can I find more information?

NASA SNWG and community-contributed materials are available on the <u>SEP Webpage</u>.

EARTH SCIENCE DATA SYSTEMS

