

A photograph of a rocket launch at night. The rocket is positioned vertically in the center, ascending into a dark sky. At its base, a massive, bright orange and yellow plume of fire and white smoke billows out, creating a large, glowing cloud. The ground in the foreground is dark, with some faint silhouettes of structures or equipment visible. The overall scene is dramatic and illuminated by the intense light of the rocket's engines.

NASA's Ice, Cloud and land Elevation Satellite-2,
or ICESat-2, launched on September 15, 2018.

1
00:00:00,020 --> 00:00:04,030

[music]

2
00:00:04,050 --> 00:00:08,070

NASA's Ice, Cloud and land Elevation Satellite-2, or ICESat-2,
launched on September 15, 2018.

3
00:00:11,090 --> 00:00:17,120

Using a rapid-firing laser, ICESat-2 has begun mapping the height of sea ice, ice sheets and forest canopies.

4
00:00:17,140 --> 00:00:26,210

Data collected over Arctic and Antarctic sea ice reveal thin ice, thick ice and ice ridges.

5
00:00:27,140 --> 00:00:36,210

Comparing the height of sea ice with the height of open water in the cracks between ice floes (leads) gives an

6
00:00:38,140 --> 00:00:43,210

Beyond ice, photons returning from over the ocean trace individual waves.

7
00:00:45,140 --> 00:00:49,210

Over forests, ICESat-2 can distinguish the tops of trees, inner canopies and forest floors.