Data Viz

How Thick is Greenland's Ice?

Most of Earth's fresh water is locked up in ice. After the Antarctic ice sheet, the Greenland ice sheet is the second largest ice body in the world. Ice sheets form in areas where snow that falls in winter does not melt entirely in the summer, building up over thousands of years. ICESat, a NASA satellite, measured heights across the Greenland ice sheet. Scientists can estimate the ice sheet thickness, using the difference between the height at the top of the ice sheet and the ground below.

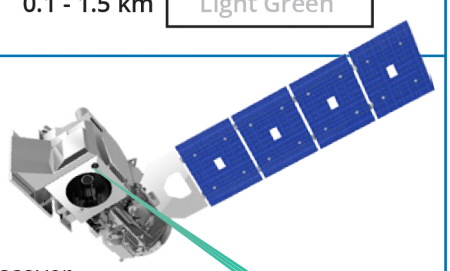
—*V. Casasanto and G. Butcher*

Instructions: The numbers in each square represent height in kilometers. Color in the scale bar from light green to purple, then fill in the squares in the grid using the same scale.

Scale: Height in Kilometers

2.9 - 3.4 km	Purple
2.3 - 2.8 km	Dark Blue
1.6 - 2.2 km	Light Blue
0.1 - 1.5 km	Light Green

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0.7	0.1	0.8	1.2	0.6	0.2	0	0	0	0	0
0	0	0	0.3	1.1	1.1	1.4	1.8	1.4	1.2	0.5	0.0	0	0	0
0	0	0.3	0.9	1.3	1.7	2.0	2.0	1.9	1.4	0.8	0.1	0	0	0
0.8	1.1	1.2	1.6	1.8	2.0	2.2	2.2	2.0	1.6	1.1	0.6	0	0	0
0.7	0.9	1.7	2.0	2.1	2.3	2.4	2.4	2.2	1.9	1.4	0.7	0.1	0	0
0.4	1.0	1.6	2.0	2.3	2.5	2.6	2.5	2.4	2.2	1.9	1.3	0.6	0	0
0	0.1	0.7	1.6	2.2	2.5	2.7	2.7	2.6	2.4	2.3	1.9	1.4	0	0
0	0	0.1	1.2	2.1	2.5	2.8	2.8	2.7	2.7	2.6	2.2	1.6	0.7	0
0	0	0	1.0	2.0	2.5	2.8	2.9	2.9	2.8	2.7	2.0	1.1	0	0
0	0	0	1.0	1.9	2.5	2.8	3.0	3.0	3.1	2.9	2.1	1.3	0	0
0	0	0	0.9	1.9	2.5	2.8	3.0	3.2	3.2	2.9	2.3	1.6	0	0
0	0	0	1.3	1.7	2.3	2.7	2.9	3.1	3.1	2.9	2.3	1.4	0	0
0	0	0	0	1.3	2.1	2.5	2.8	3.0	3.1	3.0	2.5	1.4	1.5	1.1
0	0	0	0	0.9	1.8	2.3	2.7	2.9	3.0	2.8	2.5	2.2	1.8	0.7
0	0	0	0	0.8	1.6	2.2	2.6	2.8	2.9	2.5	1.7	1.4	0.9	0
0	0	0	0	0.9	1.6	2.1	2.5	2.7	2.8	2.6	1.2	0.3	0	0
0	0	0	0	1.0	1.7	2.2	2.5	2.4	2.5	2.6	1.2	0	0	0
0	0	0	1.2	1.1	1.8	2.3	2.4	2.1	1.5	1.1	0.6	0	0	0
0	0	0	1.1	1.3	2.0	2.4	2.2	1.5	1.1	0.1	0	0	0	0
0	0	0	0.4	1.5	2.2	2.6	2.3	1.1	0	0	0	0	0	0
0	0	0	0.8	1.4	2.3	2.7	2.4	0.8	0	0	0	0	0	0
0	0	0	0.3	1.6	2.4	2.7	2.0	0.7	0	0	0	0	0	0
0	0	0	0.3	1.2	2.1	2.5	1.5	0	0	0	0	0	0	0
0	0	0	0	0.8	1.3	1.7	1.3	0	0	0	0	0	0	0
0	0	0	0	0	0	1.2	0.9	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Discover how ICESat-2 uses lasers to measure ice: http://icesat-2.gsfc.nasa.gov

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http://earthobservatory.nasa.gov/eokids