Supporting Information for "Improved GNSS-R bi-static altimetry and independent DEMs of Greenland and Antarctica from TechDemoSat-1"

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Table S1: Difference from *Slater et al.* [2018] DEM (top, Antarctic) and ESA CCI DEM (below, Greenland) shown in metres at different slope ranges. TechDemoSat-1 data produced according to methods in paper.

	Antarctic			
Slope Range (degrees)	Median difference (m)	Mean difference (m)	RMS difference (m)	% of total samples
0.00-0.25	8.35	8.12	36.90	55.52
0.25-0.50	10.26	9.17	43.42	23.02
0.50-0.75	16.64	18.22	58.71	9.30
0.75-1.00	19.19	24.95	76.00	4.24
>1.00	-27.96	14.38	176.34	7.92
	Greenland			
Slope Range (degrees)	Median difference (m)	Mean difference (m)	RMS difference (m)	% of total samples
0.00-0.25	9.26	9.22	30.07	66.83
0.25-0.50	30.93	34.91	66.45	11.43
0.50-0.75	39.32	41.15	102.35	3.20
0.75-1.00	38.87	28.77	131.29	2.00
>1.00	-92.98	-190.10	391.28	16.54

Slater, T., A. Shepherd, M. McMillan, A. Muir, L. Gilbert, A. E. Hogg, H. Konrad, and T. Parrinello (2018), A new digital elevation model of Antarctica derived from CryoSat-2 altimetry, *The Cryosphere*, *12*(4), 1551-1562, doi:10.5194/tc-12-1551-2018.