

Supplementary Material

of

**“The first complete inventory of the local glaciers
and ice caps on Greenland”**

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Table S1. Overview of the Landsat scenes used in this study. The numbers in the column “Label” refer to Fig. S1.

Label	Path	Row	Date	SLC_off	Label	Path	Row	Date	SLC_off
0	228	009	2000-08-19	0	36	231	014	1999-09-07	0
1	035	003	1999-07-24	0	37	005	016	2000-08-25	0
2	033	001	2000-06-26	0	38	021	001	2004-01-01	1
3	031	005	2000-06-28	0	39	012	002	2005-07-23	1
4	029	006	2002-08-23	0	40	012	010	2002-08-16	0
5	018	008	2001-08-07	0	41	229	011	2001-07-12	0
6	023	006	2001-08-26	0	42	003	017	2000-08-27	0
7	039	001	1999-07-20	0	43	019	001	2004-01-01	1
8	039	002	1999-07-20	0	44	010	002	2003-07-20	1
9	019	007	2001-08-30	0	45	010	011	2001-08-15	0
10	035	004	1999-07-24	0	46	227	011	2000-08-28	0
11	026	006	2000-07-27	0	47	001	005	2004-07-01	1
12	013	001	2001-07-03	0	48	008	003	2008-07-01	1
13	230	007	2001-08-20	0	49	008	012	2001-08-01	0
14	230	008	2001-08-20	0	50	024	001	2004-01-01	1
15	230	009	2001-08-20	0	51	225	011	2002-09-05	0
16	230	010	2001-09-21	0	52	015	001	2003-07-01	1
17	004	005	2003-07-26	1	53	015	009	2002-08-21	0
18	020	001	2004-01-01	1	54	232	006	2004-01-01	1
19	228	012	1999-08-11	0	55	006	015	2009-07-31	1
20	002	017	2001-08-23	0	56	022	001	2004-01-01	1
21	226	012	2001-08-08	0	57	231	011	2000-09-09	0
22	016	001	2003-07-01	1	58	232	008	2001-08-18	0
23	233	014	2002-07-27	0	59	224	010	2002-09-14	0
24	233	015	2002-07-27	0	60	228	010	2000-08-19	0
25	233	016	2001-09-10	0	61	009	013	1994-07-12	0
26	233	017	2002-08-12	0	62	008	013	2001-08-01	0
27	233	018	2002-08-12	0	63	008	014	2000-08-14	0
28	007	003	2003-07-01	1	64	045	001	2000-06-30	0
29	007	004	2003-07-31	1	65	027	001	2006-06-02	1
30	007	013	2000-08-23	0	66	228	010	2001-08-06	0
31	007	014	2000-08-23	0	67	012	011	2001-08-29	0
32	023	001	2004-01-01	1	68	035	001	2000-06-24	0
33	231	006	2005-09-07	1	69	035	005	2010-07-06	1
34	231	012	2002-08-14	0	70	227	011	2000-08-28	0
35	231	013	2000-09-09	0	71	040	001	2002-07-03	0
					72	226	010	2003-08-14	1

Table S2. Number and area of marine terminating glaciers per sector for all connectivity levels.

	Number	Area [km ²]
South-west	60	3162 ± 98
South-east	236	8979 ± 278
East	379	31 922 ± 990
West	18	344 ± 11
North-west	67	3316 ± 103
North	135	16 877 ± 523
North-east	9	372 ± 12
Total	904	64 972 ± 2014

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Table S3. Absolute numbers for all connectivity levels per sector, the whole of Greenland and the marine terminating glaciers. The $\pm 3.1\%$ uncertainty is not shown.

	North Greenland		North-east		East	
	Number	Area [km ²] \bar{a} : 21.1 km ²	Number	Area [km ²] \bar{a} : 3.0 km ²	Number	Area [km ²] \bar{a} : 7.2 km ²
0.05–0.1	117	8	21	1	960	69
0.1–0.5	392	90	567	126	3060	721
0.5–1.0	122	88	144	101	1041	742
1.0–5.0	409	1062	192	442	1832	4263
5.0–10.0	186	1314	50	361	449	3112
10.0–50.0	299	7046	72	1495	507	10 654
50.0–100.0	76	5385	8	568	83	5688
100.0–500.0	56	10 725	1	143	46	8907
> 500	4	9334	0	0	15	24 293
	1661	35 052	1055	3237	7993	58 449
	South-east		South-west		West	
	Number	Area [km ²] \bar{a} : 4.0 km ²	Number	Area [km ²] \bar{a} : 2.7 km ²	Number	Area [km ²] \bar{a} : 2.2 km ²
0.05–0.1	596	42	933	66	483	34
0.1–0.5	1115	258	1356	308	917	222
0.5–1.0	344	243	324	230	351	252
1.0–5.0	590	1286	458	1044	549	1268
5.0–10.0	120	871	88	614	158	1101
10.0–50.0	121	2532	72	1595	128	2478
50.0–100.0	31	2090	15	1088	7	455
100.0–500.0	18	3133	12	2944	1	135
> 500	2	1484	2	1173	0	0
	2937	11 939	3260	9062	2594	5945
	North-west		Marine Terminating		Entire Greenland	
	Number	Area [km ²] \bar{a} : 8.3 km ²	Number	Area [km ²] \bar{a} : 71.8 km ²	Number	Area [km ²] \bar{a} : 6.4 km ²
0.05–0.1	233	16	2	0,2	3343	236
0.1–0.5	270	57	70	19	7677	1782
0.5–1.0	54	37	56	41	2380	1693
1.0–5.0	86	211	192	491	4116	9576
5.0–10.0	38	274	122	873	1089	7647
10.0–50.0	52	1101	287	6741	1251	26 901
50.0–100.0	11	794	80	5676	231	16 068
100.0–500.0	15	3356	74	16 044	149	29 343
> 500	1	515	21	35 086	24	36 799
	760	6361	904	64 971.2	20 260	130 045

Table S4. Absolute area (in km²) covered by local GIC per aspect sector for all subregions and the whole of Greenland (CL0, CL1). The $\pm 3.1\%$ uncertainty is not shown.

Sector	South-east	South-west	East	West	North-west	North	North-east	Entire Greenland
N	1196	1234	3209	774	699	4409	312	11 833
NE	906	1393	3132	710	744	3800	340	11 025
E	642	740	3285	679	613	3679	218	9856
SE	567	804	4257	759	797	3206	531	10 921
S	604	1648	3094	678	894	2700	495	10 113
SW	672	1256	3110	805	161	3134	378	9516
W	890	682	2808	662	266	11 241	385	16 934
NW	1428	937	2749	627	162	2815	322	9040
Total/sector	6905	8694	25 644	5694	4336	34 984	2981	89 238

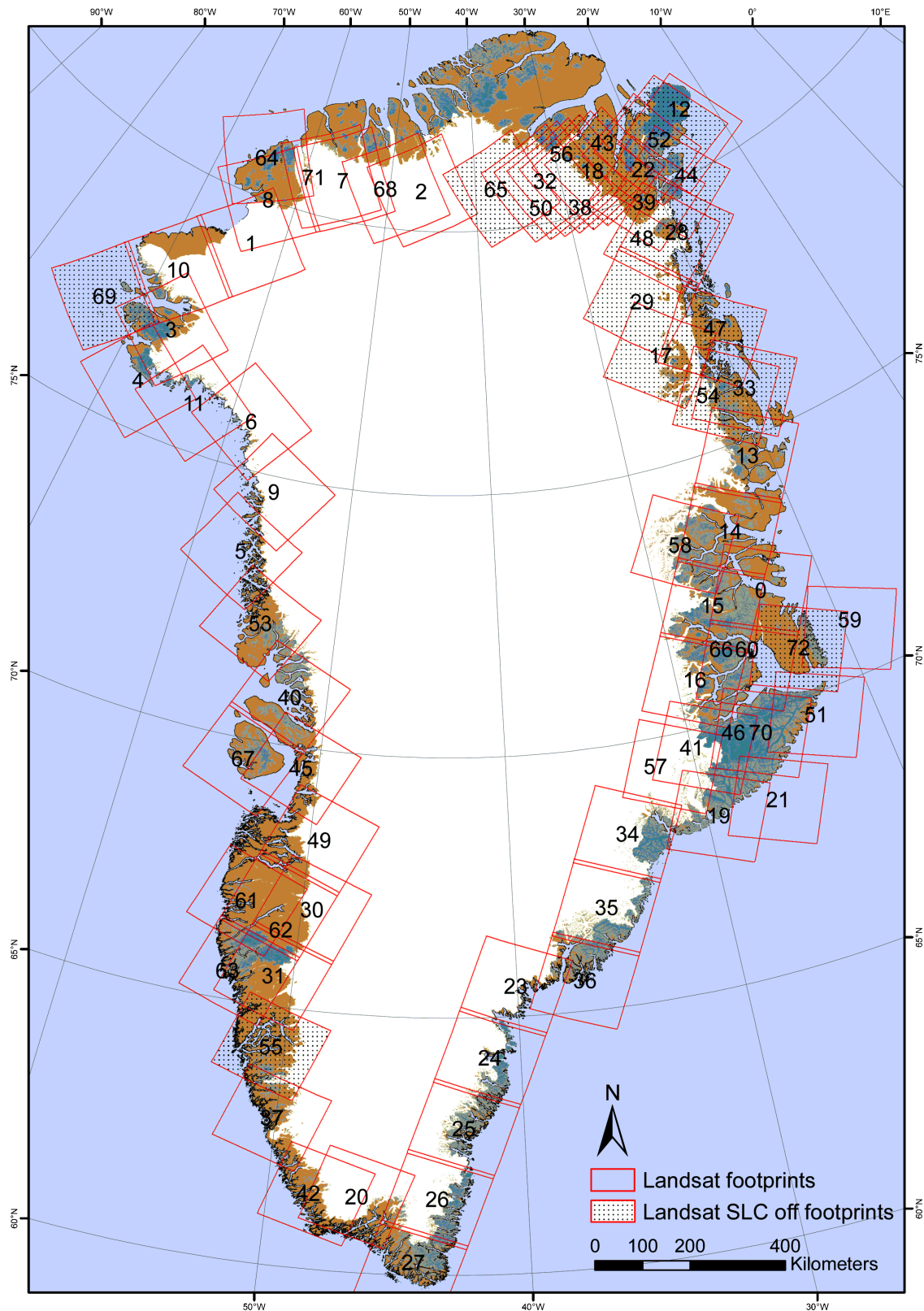


Fig. S1. Scene location (footprint) overview map (see Table S1 for path, row and acquisition date).

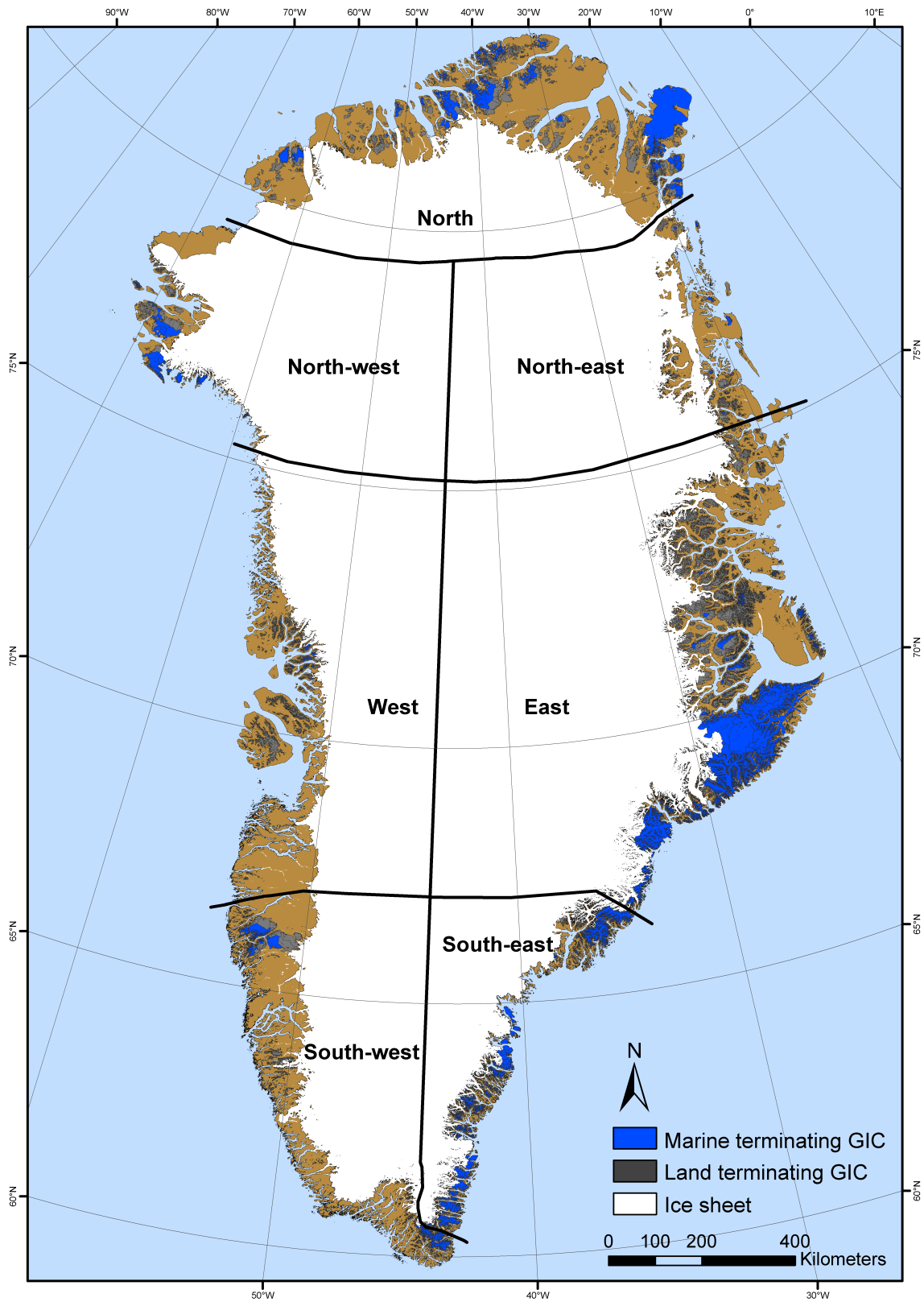


Fig. S2. Location map of all marine (blue) and land (grey) terminating glaciers in Greenland.