



Supplement of

Orientation dependent glacial changes at the Tibetan Plateau derived from 2003–2009 ICESat laser altimetry

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SUPPLEMENT

Table S1: Rates of glacial vertical changes on the Tibetan Plateau between 2003 and 2009

78	35.7896	93.3675	N	Tarim Basin										76	1.23	0.68	10.17	0.0364	
79	35.8122	77.1481	N	Tarim Basin						47	0.19	0.57	3.16	0.0198	66	0.05	0.54	2.80	0.0278
80	35.9110	91.4375	N	Tarim Basin										59	-3.40	0.86	2.49	0.0166	
81	35.9285	77.1800	N	Tarim Basin	143	0.46	0.29	1.32	0.0060	187	0.25	0.36	5.32	0.0079	236	-0.47	0.38	6.06	0.0099
82	35.9310	80.8954	N	Tarim Basin	45	-0.74	0.57	2.05	0.0126	69	-0.86	0.60	2.32	0.0194	88	0.09	0.54	2.98	0.0247
83	36.0723	79.3273	N	Tarim Basin						56	1.25	0.51	3.09	0.0070	80	2.56	0.75	5.19	0.0101
84	36.1386	75.9995	N	Tarim Basin	470	0.92	0.27	5.71	0.0028	528	0.99	0.28	6.69	0.0031	576	1.15	0.29	6.30	0.0034
85	36.4774	75.9075	N	Tarim Basin						52	0.00	0.63	2.98	0.0071	76	0.04	0.49	3.23	0.0103
86	36.5223	77.4777	N	Tarim Basin	93	-0.12	0.49	2.87	0.0070	106	-0.05	0.50	3.21	0.0079	129	0.30	0.49	3.36	0.0096
87	36.6339	91.1211	N	Tarim Basin						127	1.38	0.53	5.72	0.0087	204	1.13	0.54	6.73	0.0140
88	36.8127	84.8954	N	Tarim Basin						52	0.03	0.78	2.44	0.0164	70	-1.55	0.77	5.35	0.0221
89	36.9845	75.2616	N	Tarim Basin						62	-0.42	0.66	2.46	0.0117	66	-0.35	0.65	1.89	0.0125
90	37.0809	75.2591	N	Tarim Basin	49	-0.44	0.69	1.44	0.0104	67	-0.54	0.70	4.04	0.0143	103	0.46	1.00	5.47	0.0220
91	37.3722	87.7941	N	Tarim Basin	91	0.06	0.25	2.34	0.0477	92	0.07	0.25	2.34	0.0482	98	0.11	0.25	2.04	0.0514
92	37.3798	87.7196	N	Tarim Basin	49	0.63	0.29	1.05	0.0080	63	0.06	0.30	3.52	0.0102	70	0.17	0.31	2.51	0.0114
93	37.5106	87.8260	N	Tarim Basin						107	0.13	0.39	4.83	0.0466	137	0.57	0.56	5.02	0.0597
94	38.1895	96.3351	N	Tarim Basin	138	-0.57	0.31	3.04	0.0113	157	-0.33	0.31	2.36	0.0129	181	-0.68	0.35	3.12	0.0149
95	39.2061	73.5100	N	Tarim Basin	85	-1.03	0.50	4.29	0.0371	111	-0.47	0.50	4.91	0.0484	112	-0.47	0.50	5.00	0.0489
96	36.0925	80.1294	NE	Tarim Basin										52	0.49	0.42	6.64	0.0120	
97	36.4999	91.3473	NE	Tarim Basin										85	-1.10	0.85	4.43	0.0229	
98	36.5810	77.2859	NE	Tarim Basin										53	-0.25	0.52	5.22	0.0143	
99	36.8056	76.6516	NE	Tarim Basin						73	0.75	0.34	3.43	0.0244	94	1.73	0.47	3.23	0.0314
100	37.7371	101.4823	NE	Tarim Basin						39	1.69	0.57	5.63	0.0173	57	1.12	0.54	5.25	0.0253
101	38.2362	89.2855	NE	Tarim Basin										60	0.90	0.52	6.36	0.0304	
102	38.2380	95.9301	NE	Tarim Basin						65	0.81	0.70	6.49	0.0300	80	0.05	0.64	6.64	0.0370
103	35.9769	78.9192	E	Tarim Basin						49	1.10	0.61	7.50	0.0136	77	1.83	0.66	6.87	0.0214
104	36.7870	75.8619	E	Tarim Basin						96	1.09	0.50	4.84	0.0163	135	1.17	0.54	5.37	0.0229
105	37.6474	88.2015	E	Tarim Basin						52	0.21	0.44	3.22	0.0403	60	-0.13	0.60	4.74	0.0466
106	35.4097	81.6117	SE	Tarim Basin	301	-0.42	0.41	2.98	0.0296	338	-0.44	0.44	3.46	0.0332	360	-0.51	0.51	4.05	0.0354
107	38.8890	73.9813	SE	Tarim Basin										46	0.27	0.49	2.65	0.0430	
108	39.3418	73.5386	SE	Tarim Basin	99	1.97	0.60	2.08	0.0140	135	1.34	0.84	2.64	0.0191	164	-0.85	0.86	4.64	0.0232
109	36.0236	90.9623	S	Tarim Basin	381	-0.66	0.36	3.07	0.0072	428	-0.80	0.38	7.03	0.0081	487	-1.12	0.47	7.59	0.0092
110	38.8333	74.9679	SW	Tarim Basin	142	0.06	0.38	2.27	0.0259	145	0.09	0.39	2.03	0.0265	146	-0.03	0.39	2.23	0.0267
111	35.7742	77.1298	W	Tarim Basin	65	0.98	0.34	2.12	0.0046	93	0.06	0.57	4.74	0.0066	138	0.11	0.68	7.20	0.0098
112	36.3990	78.8542	W	Tarim Basin	88	0.14	0.25	2.72	0.0287	116	-0.07	0.44	3.27	0.0378	139	-0.23	0.39	3.49	0.0453
113	38.2403	75.0779	W	Tarim Basin										107	-1.13	0.96	5.50	0.0048	
114	39.0528	74.9451	W	Tarim Basin										43	2.05	1.42	5.01	0.0038	
115	36.6042	77.4907	NW	Tarim Basin	96	1.24	0.27	2.64	0.0199	129	0.77	0.48	3.70	0.0267	156	-0.58	0.50	5.86	0.0323
116	38.7759	73.9556	NW	Tarim Basin						66	-1.96	0.51	2.38	0.0403	105	-0.41	0.94	7.20	0.0641
117	38.9077	73.9818	NW	Tarim Basin										58	0.56	0.62	6.39	0.0465	
118	33.4012	91.3401	N	Yangtze	108	-0.61	0.54	3.41	0.0431	135	-1.67	0.48	3.91	0.0538	169	-0.96	0.48	3.95	0.0674
119	33.9536	90.6697	N	Yangtze	324	-0.48	0.29	3.19	0.0323	342	-0.60	0.30	3.23	0.0341	354	-0.61	0.32	3.55	0.0353
120	29.6724	101.9318	E	Yangtze	70	-0.39	0.59	4.23	0.0017	101	-0.45	0.48	5.14	0.0025	121	-0.67	0.54	7.19	0.0030
121	33.1281	92.1241	E	Yangtze	98	-1.19	0.53	2.25	0.0272	131	-1.37	0.55	2.92	0.0363	158	-0.59	0.56	4.30	0.0438
122	33.0758	92.1159	S	Yangtze	42	-0.98	0.77	3.64	0.0189	67	-1.63	0.49	4.54	0.0301	83	-0.46	0.59	6.37	0.0373