

# 1Supplementary material to

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## 3Karakoram geodetic glacier mass balances between 2008 and 2016: 4persistence of the anomaly and influence of a large rock avalanche on 5Siachen Glacier

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8**Supplementary Table S1:** List of the stereo-images used to estimate the region-wide mass balance of Central and Eastern Karakoram  
9glaciers. GSD stands for ground sampling distance. Format for the dates is YYYY-MM-DD

Date	Sensor	GSD (m)	Id
2008-12-03	SPOT5-HRS	5	NaN
2010-10-31	SPOT5-HRS	5	NaN
2015-10-01	SPOT6	1.5	DS_SPOT6_201510010516246_GS1_GS1_GS1_GS1_E076N36_03089
2015-10-13	SPOT6	1.5	DS_SPOT6_201510130524080_GS1_GS1_GS1_GS1_E075N36_02521
2015-11-28	SPOT7	1.5	DS_SPOT7_201511280519115_FR1_FR1_SE1_SE1_E076N35_01871
2016-11-15	SPOT6	1.5	DS_SPOT6_201611150505384_FR1_FR1_SE1_SE1_E077N35_03170
2016-12-17	SPOT7	1.5	DS_SPOT7_201612170509459_GS1_GS1_GS1_GS1_E078N35_01546
2008-07-31	ASTER	15	AST_L1A.003:2066277330 AST_L1A.003:2066276935
2008-10-03	ASTER	15	AST_L1A.003:2066392026 AST_L1A.003:2066392413
2009-10-31	ASTER	15	AST_L1A.003:2076678279 AST_L1A.003:2076678215
2009-12-02	ASTER	15	AST_L1A.003:2077168450 AST_L1A.003:2077168402
2010-11-03	ASTER	15	AST_L1A.003:2082135475 AST_L1A.003:2082135463
2014-09-27	ASTER	15	AST_L1A.003:2133927318 AST_L1A.003:2133927325 AST_L1A.003:2133927324

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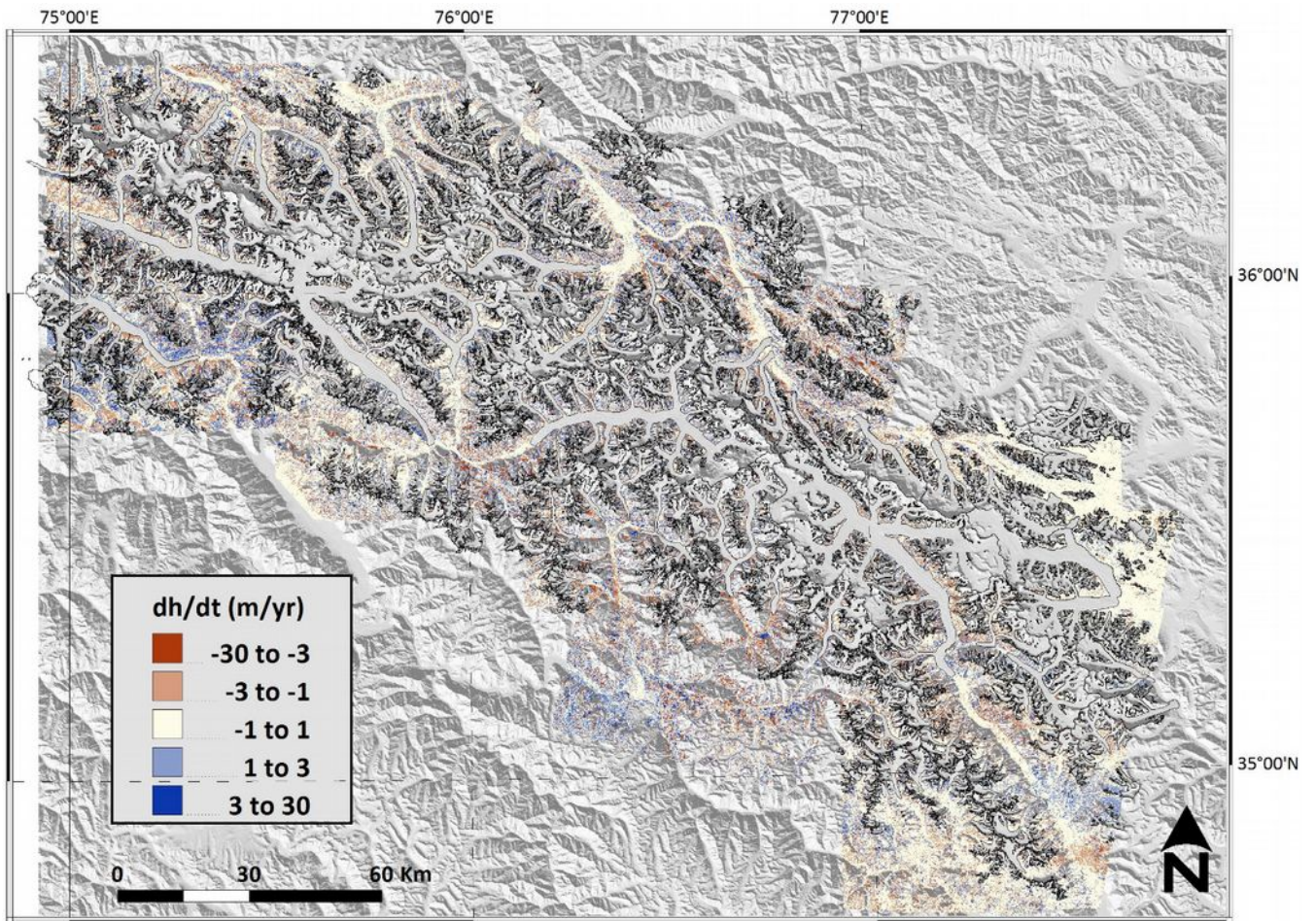
12 **Supplementary Table S2:** List of the stereo-images used to study the changes in surface elevation, morphology and velocity induced by  
13 the 2010 rock avalanche on Siachen Glacier. Format for the dates is YYYY-MM-DD

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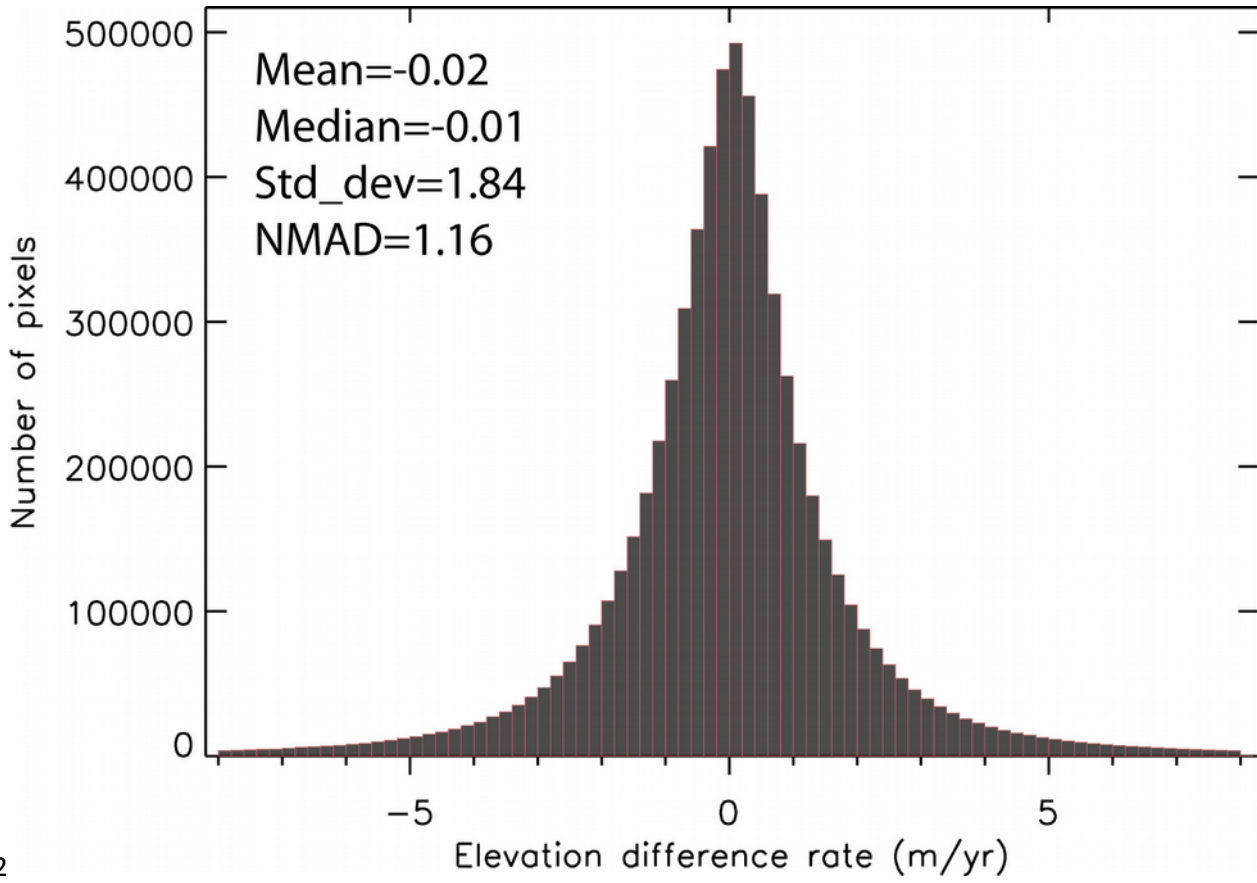
Date	Sensor	GSD	Id
2008-10-21	ASTER	15	AST_L1A.003:2069376321
2009-10-31	ASTER	15	AST_L1A.003:2076678279
2010-10-31	SPOT5-HRS	5	Not available
2010-11-03	ASTER	15	AST_L1A.003:2082135475
2011-03-11	ASTER	15	AST_L1A.003:2084000601
2011-06-24	ASTER	15	AST_L1A.003:2086122420
2012-04-23	ASTER	15	AST_L1A.003:2092302225
2012-07-03	ASTER	15	AST_L1A.003:2093297714
2013-12-13	ASTER	15	AST_L1A.003:2129845131
2015-02-11	ASTER	15	AST_L1A.003:2138405576
2015-12-03	ASTER	15	AST_L1A.003:2204089433
2016-03-08	ASTER	15	AST_L1A.003:2215246975
2016-11-15	SPOT6	1.5	DS_SPOT6_201611150505384_FR1_FR1_SE1_SE1_E077N35_03170

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17Supplementary Figure S1: Map of the rate of elevation change ( $dh/dt$ ) off glacier between 2008/2010 and 2014/2016



20Supplementary Figure S2: Histogram of the rate of elevation change off glacier between 2008/2010 and 2014/2016. The 21mean, median, standard deviation and NMAD of  $dh/dt$  are also given (all values in  $m a^{-1}$ ).



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