

Supplement

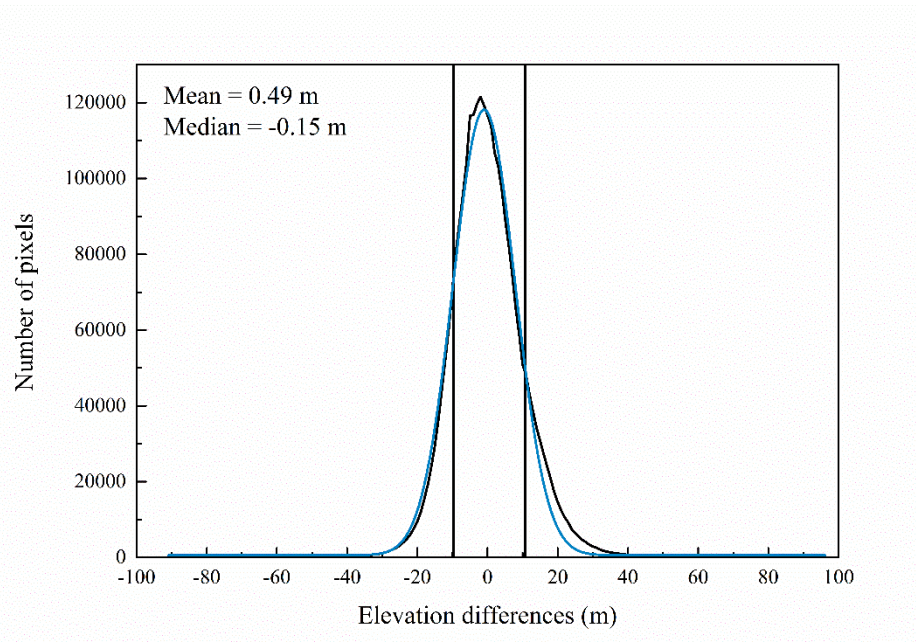
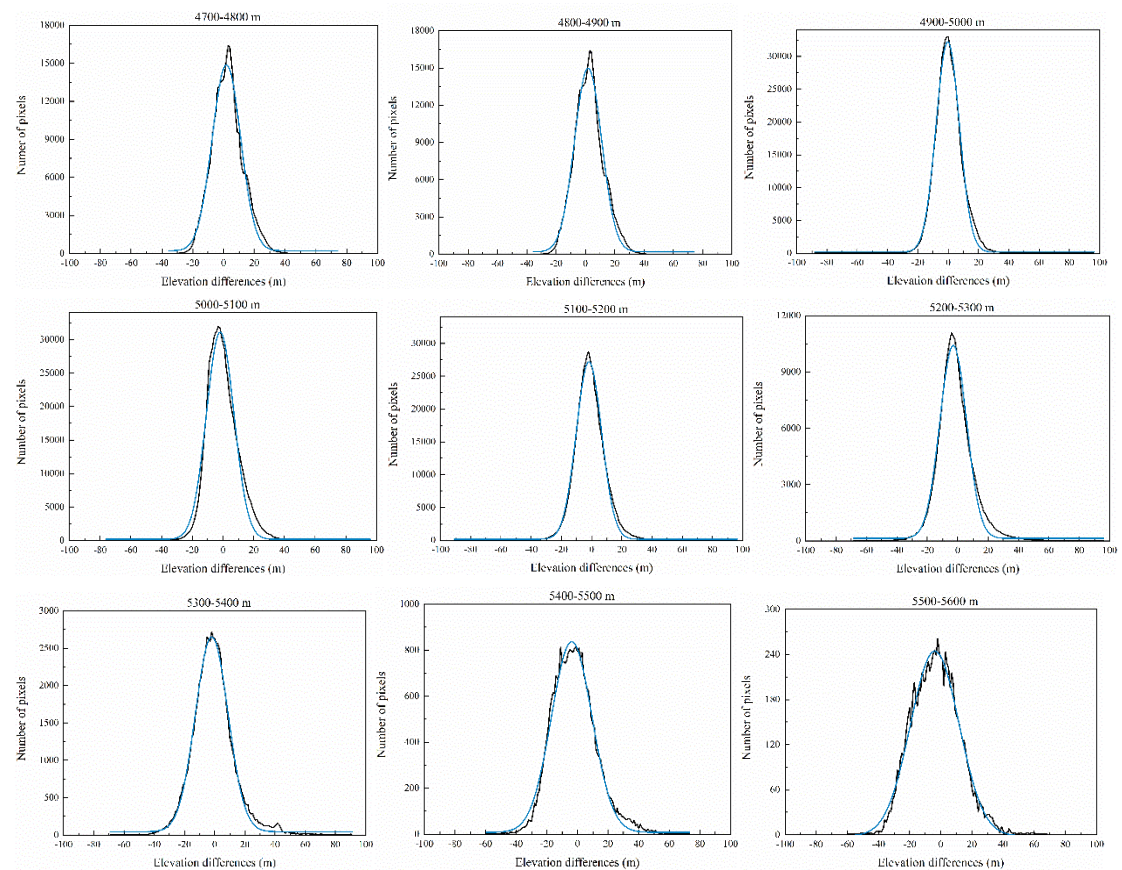


Figure S1. Distribution of elevation differences (black line) between TOPO and SRTM on the ice-free terrain after planimetric and vertical adjustment of the DEMs. The blue line represents the corresponding gaussian fit. The vertical lines represent the standard deviation of elevation differences.



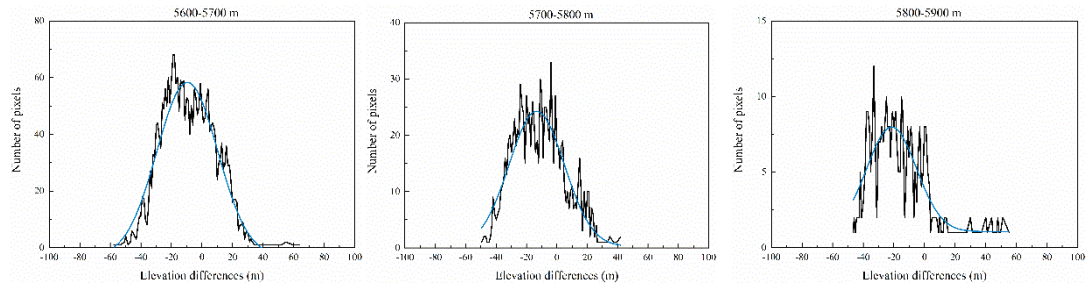


Figure S2. Distribution of elevation changes between TOPO and SRTM (black line) in each altitude interval. The blue line represents the corresponding gaussian fit.

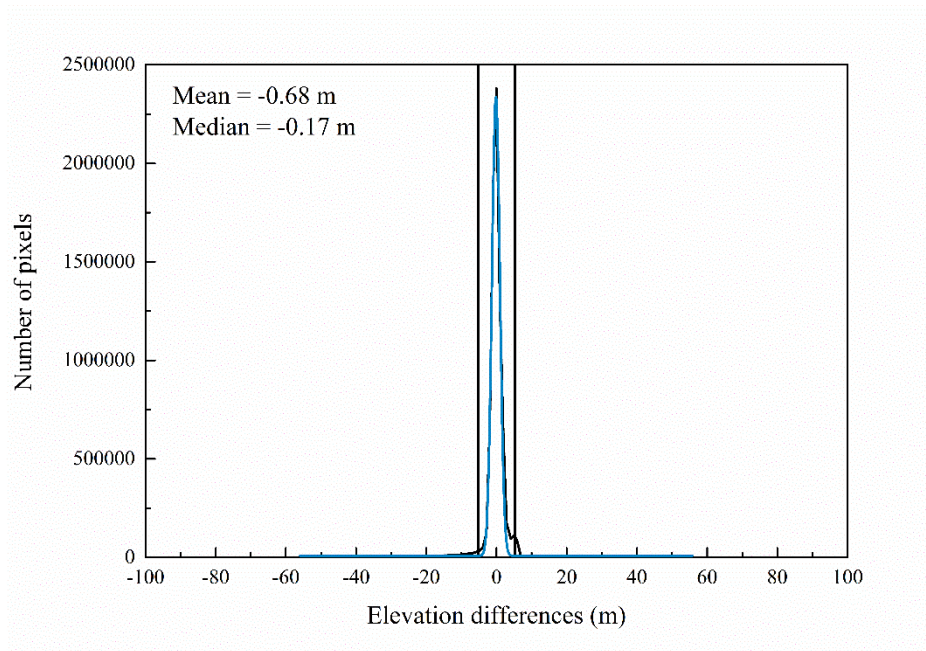
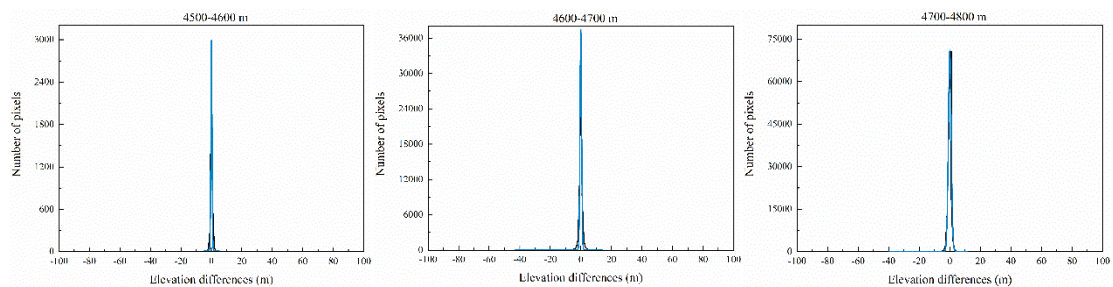


Figure S3. Distribution of elevation differences (black line) between TSX/TDX-X and SRTM on the ice-free terrain after planimetric and vertical adjustment of the DEMs. The blue line represents the corresponding gaussian fit. The vertical lines represent the standard deviation of elevation differences.



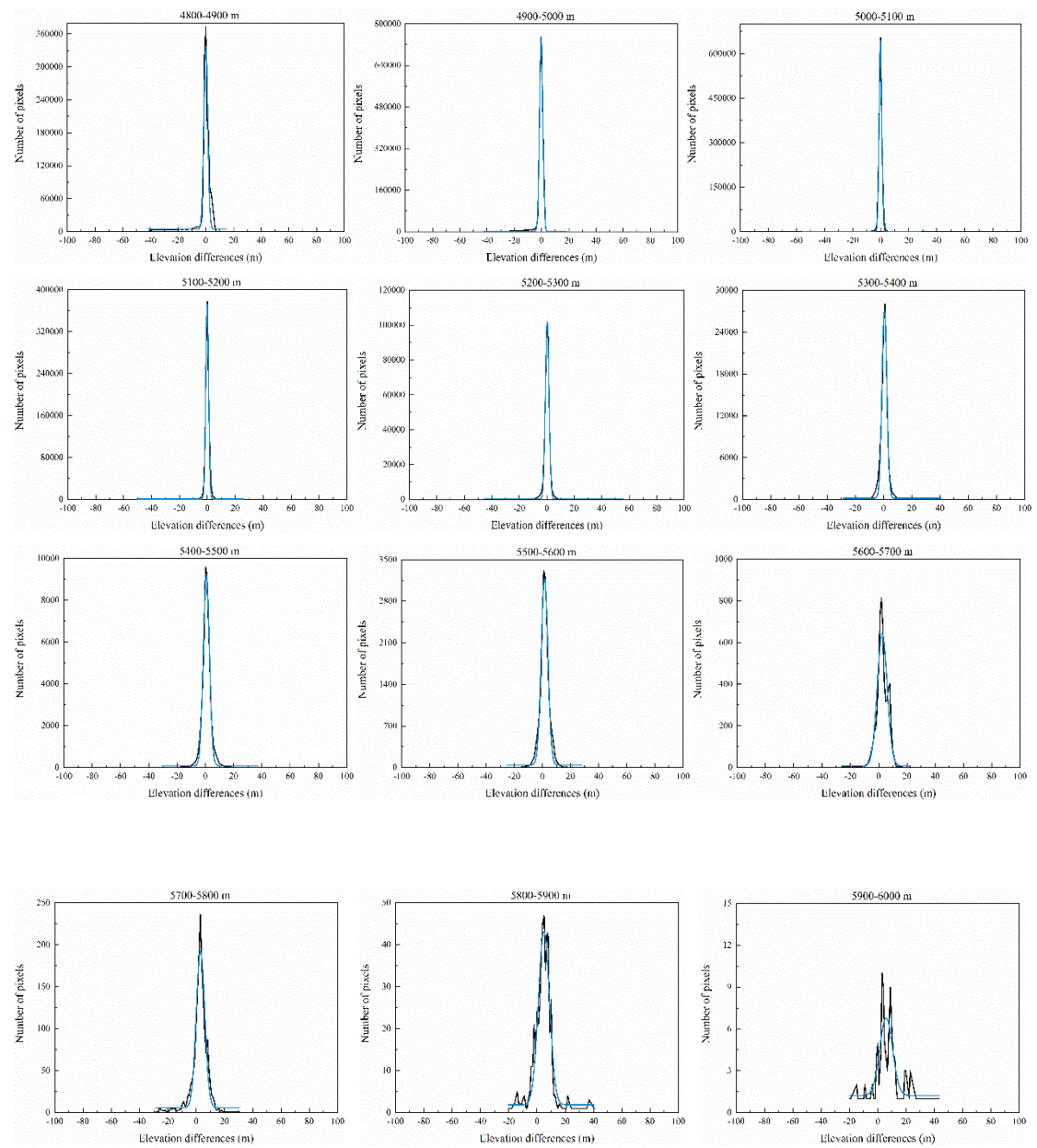


Figure S4. Distribution of elevation changes between TSX/TDX-X and SRTM (black line) in each altitude interval. The blue line represents the corresponding gaussian fit.

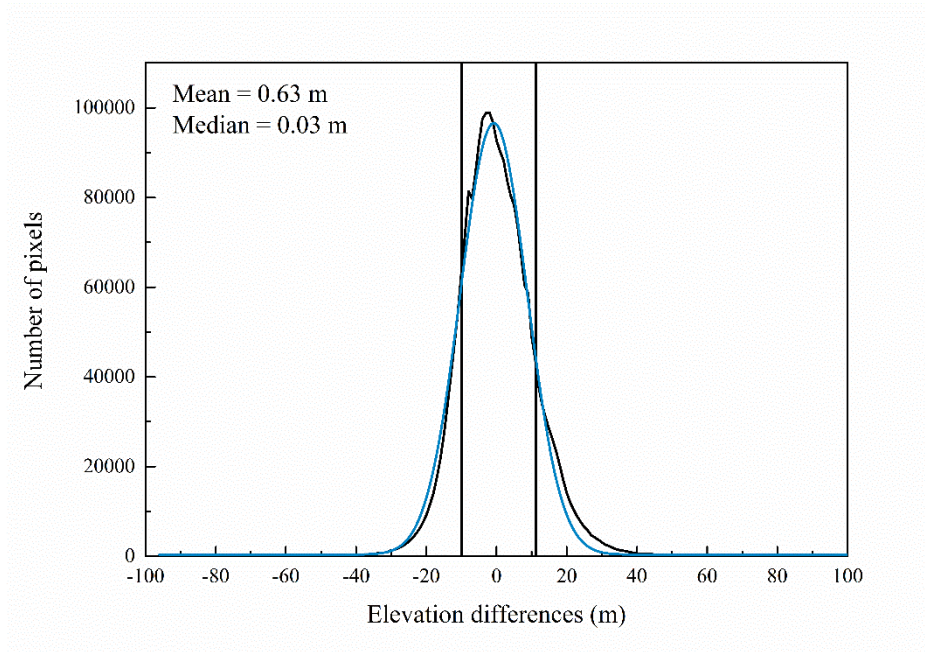
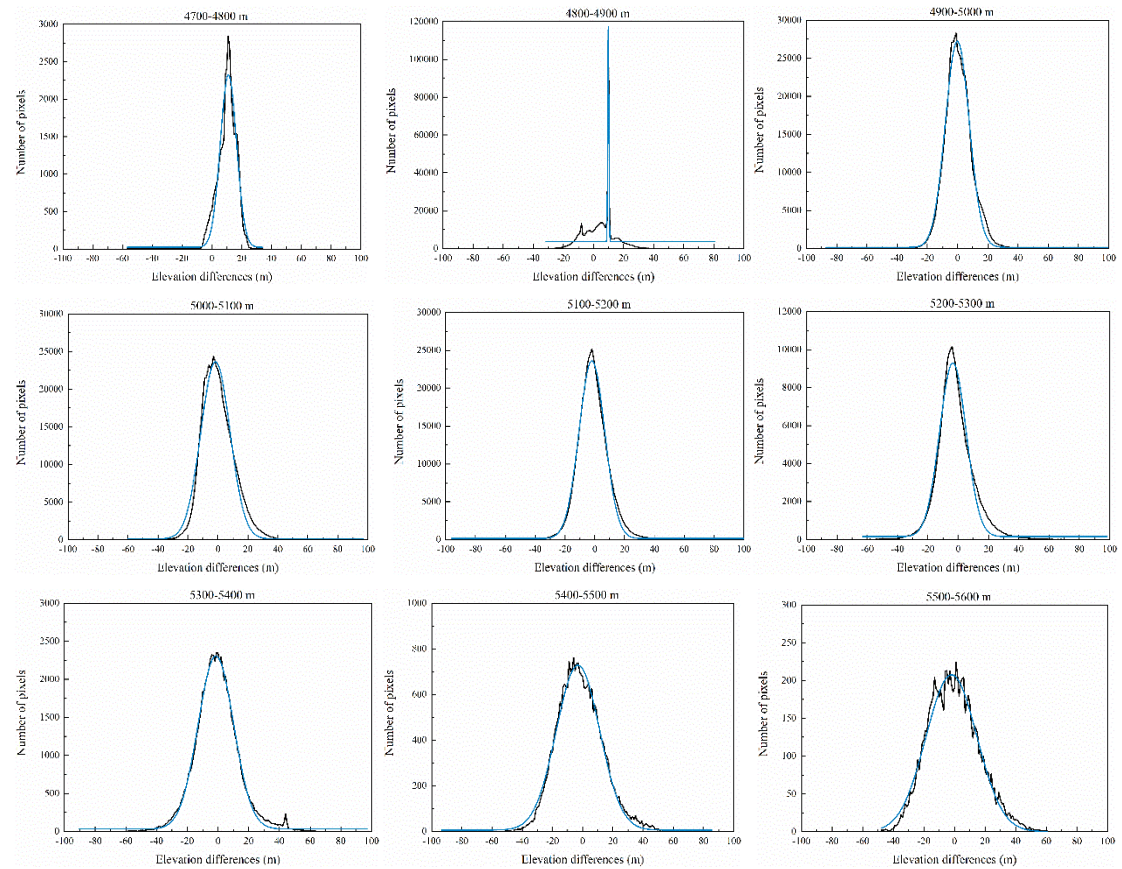


Figure S5. Distribution of elevation differences (black line) between TSX/TDX-X and TOPO on the ice-free terrain after planimetric and vertical adjustment of the DEMs. The blue line represents the corresponding gaussian fit. The vertical lines represent the standard deviation of elevation differences.



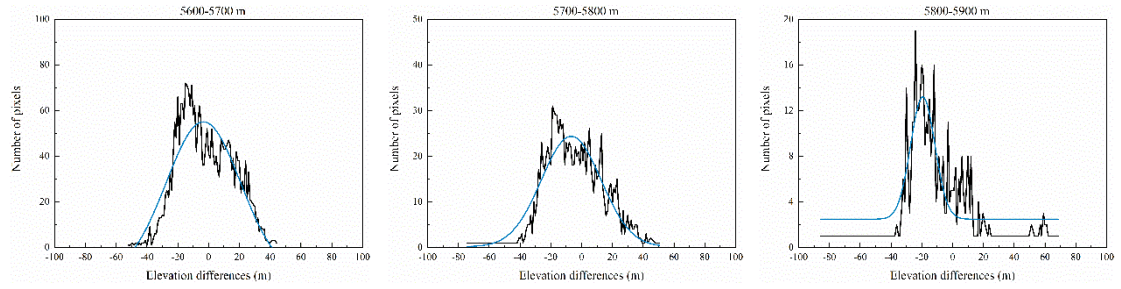


Figure S6. Distribution of elevation changes between TSX/TDX-X and TOPO (black line) in each altitude interval. The blue line represents the corresponding gaussian fit.

Table S1. The AST14DEMO product used in our study.

Name	date
AST14DMO_00307122000050012	12 Jul 2000
AST14DMO_00309302000045910	30 Sept 2000
AST14DMO_00310072000050455	7 Oct 2000
AST14DMO_00310072000050504	7 Oct 2000
AST14DMO_00305122001045435	12 May 2001
AST14DMO_00312132001045430	13 Dec 2001
AST14DMO_00312132001045421	13 Dec 2001
AST14DMO_00312222001044757	22 Dec 2001
AST14DMO_00310132002045206	13 Oct 2002
AST14DMO_00310132002045157	13 Oct 2002
AST14DMO_00303222003045151	22 Mar 2003
AST14DMO_00309142003045019	14 Sept 2003
AST14DMO_00309142003045028	14 Sept 2003
AST14DMO_00309232003044432	23 Sept 2003
AST14DMO_00304022004044451	2 Apr 2004
AST14DMO_00308152004045036	15 Aug 2004
AST14DMO_00309092004044417	9 Sept 2004
AST14DMO_00310052005045010	5 Oct 2005
AST14DMO_00310212005045003	21 Oct 2005
AST14DMO_00310212005045012	21 Oct 2005
AST14DMO_00311022006044415	2 Nov 2006
AST14DMO_00311052007044433	5 Nov 2007
AST14DMO_00311192007045651	19 Nov 2007
AST14DMO_00304112008045705	11 Apr 2008
AST14DMO_00304292008044505	29 Apr 2008
AST14DMO_00301012009045144	1 Jan 2009
AST14DMO_00301012009045153	1 Jan 2009
AST14DMO_00310252009044500	25 Oct 2009
AST14DMO_00309012010045044	1 Sept 2010

AST14DMO_00309102010044443	10 Sept 2010
AST14DMO_00311292010044440	29 Nov 2010
AST14DMO_00310132011045639	13 Oct 2011
AST14DMO_00310222011045029	22 Oct 2011
AST14DMO_00310312011044428	31 Oct 2011
AST14DMO_00310312011044428	31 Oct 2011
AST14DMO_00310082012045026	8 Oct 2012
AST14DMO_00310082012045035	8 Oct 2012
AST14DMO_00311022012044430	2 Nov 2012
AST14DMO_00310112013045049	11 Oct 2013
AST14DMO_00310112013045058	11 Oct 2013
AST14DMO_00310202013044439	20 Oct 2013
AST14DMO_00310272013045043	27 Oct 2013
AST14DMO_00311212013044452	21 Nov 2013
AST14DMO_00301242014044454	24 Jan 2014
AST14DMO_00301242014044454	24 Jan 2014
AST14DMO_00301312014045046	31 Jan 2014
AST14DMO_00301312014045055	31 Jan 2014
AST14DMO_00310232014044523	23 Oct 2014
AST14DMO_00310012015045110	1 Oct 2015
AST14DMO_00310012015045119	1 Oct 2015
AST14DMO_00310172015045135	17 Oct 2015
AST14DMO_00303252016045110	25 Mar 2016
AST14DMO_00304172016045717	17 Apr 2016
AST14DMO_00310032016045114	3 Oct 2016
AST14DMO_00310032016045123	3 Oct 2016
AST14DMO_00310192016045119	19 Oct 2016
AST14DMO_00310062017045131	6 Oct 2017
AST14DMO_00310062017045122	6 Oct 2017
AST14DMO_00304252018044556	25 Apr 2018
AST14DMO_00305112018044609	11 May 2018