Supplementary Material for: Change in grounding line location on the Antarctic Peninsula measured using a tidal motion offset correlation method, Wallis et al. 2024.

Sentinel-1 track	Frames
037	0856, 0862
038	0808, 0813, 0818, 0823, 0828, 0833, 0838, 0843
052	0840, 0846, 0851
082	0807, 0813, 0818, 0823, 0828, 0833
169	0825, 0831, 0836, 0841, 0846

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Table S1. List of Sentinel-1 SAR frames used to compile the TMOC Antarctic Peninsula tide correlation grounding line data.

Region	Sentinel-1 Track	Sentinel-1 Frame	DInSAR constituent dates
Larsen B Ice Shelf Remnant	038	0818	18/09/2019 24/09/2019 30/09/2019
Larsen C Ice Shelf	038	0818	18/09/2019 24/09/2019 30/09/2019
		0823	14/07/2019 20/07/2019 26/07/2019
		0828	02/02/2019 08/02/2019 14/02/2019
Larsen D Ice Shelf	052	0846	09/02/2019 15/02/2019 21/02/2019
George VI Ice Shelf	169	0841	23/02/2019 01/03/2019 07/03/2019
		0846	23/02/2019 01/03/2019 07/03/2019

Table S1. Sentinel-1 SAR IW mode image frames and acquisition dates used to produce differential interferograms for this study.

Glacier	Grounding line change 2019-2020 w.r.t. (km inland)		
	MEaSUREs AB	MEaSUREs InSAR (1996)	ASAID (1999-2003)
Hektoria	11.7	16.3	13.8
Green	4.4	9.3	6.3
Evans	3.3	6.7	6.7
Edgeworth	8.3	-	3.8
Bombardier	4.4	-	0.0
Dinsmoor	4.2	-	0.7
Crane	-1.0	3.6	0.5

Table S3. Grounding line location change for the Larsen-A and -B embayment glaciers shown in Fig. 5. Change measured in 2019-20 with respect to MEaSUREs Antarctic Boundaries v2 (Mouginot et al., 2017), MEaSUREs DInSAR (Rignot et al., 2016) and ASAID (Bindschadler et al., 2011) grounding line datasets.
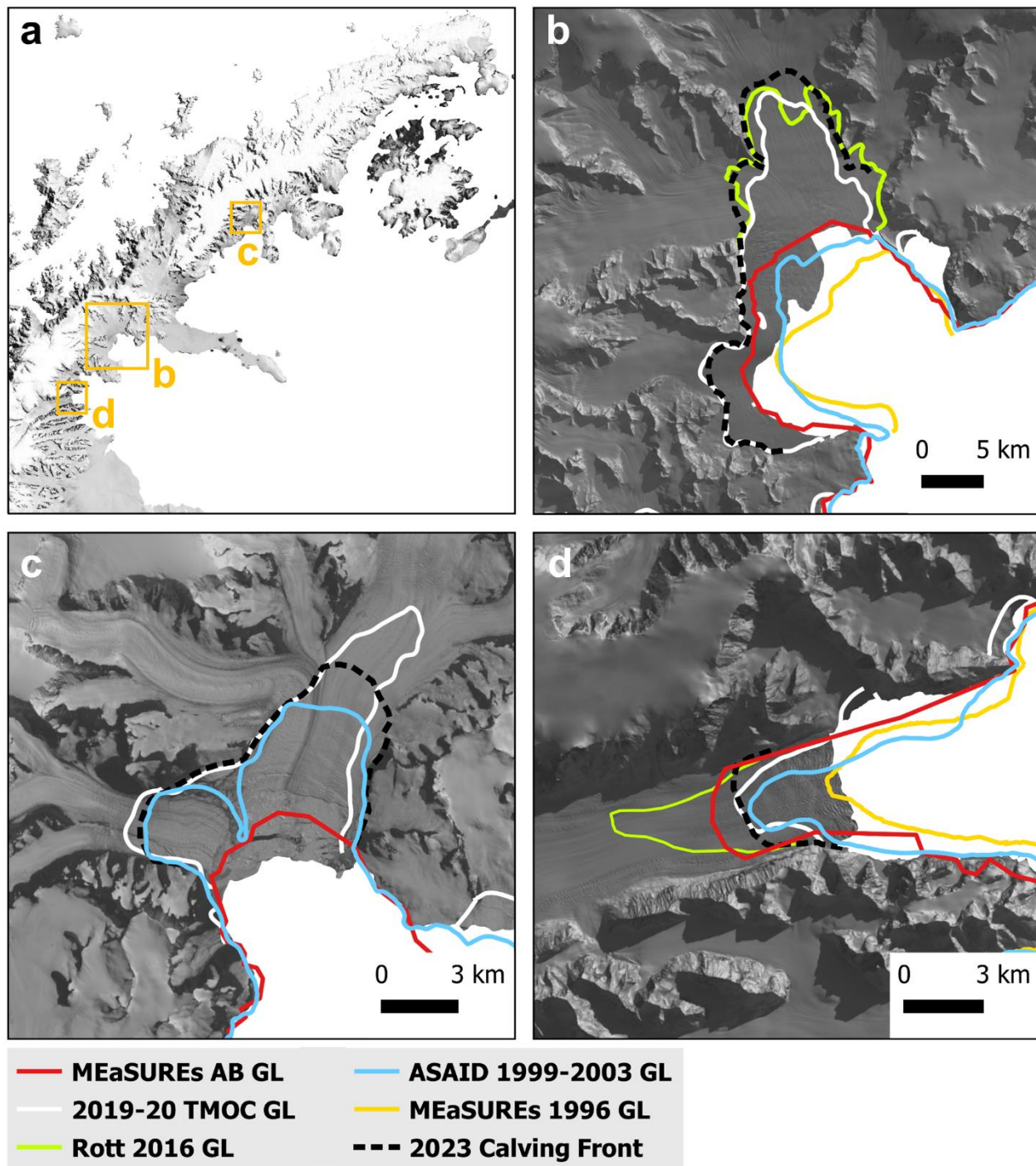
Figure S1. Detailed grounding line location maps for glaciers in the Larsen-A and -B Inlets shown in Figure 5. (a) Overview map of the northern Antarctic Peninsula with the LIMA Landsat mosaic used as a base-map (Bindschadler et al., 2008). (a) Hektoria-Green-Evans Glacier system GL location with a Landsat-8 base-map from 21/12/2021. (b) Edgeworth-Bombardier-Dinsmoor Glacier system GL location with a Landsat-8 base-map from 21/12/2021. (d) Crane Glacier GL location with a Landsat-8 base-map from 22/09/2020. All maps use a sea-mask from the British Antarctic Survey 2020 coastline (Gerrish, 2020).