



Supplement of

Ice shelf basal melt rates from a high-resolution digital elevation model (DEM) record for Pine Island Glacier, Antarctica

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Supplementary Figures

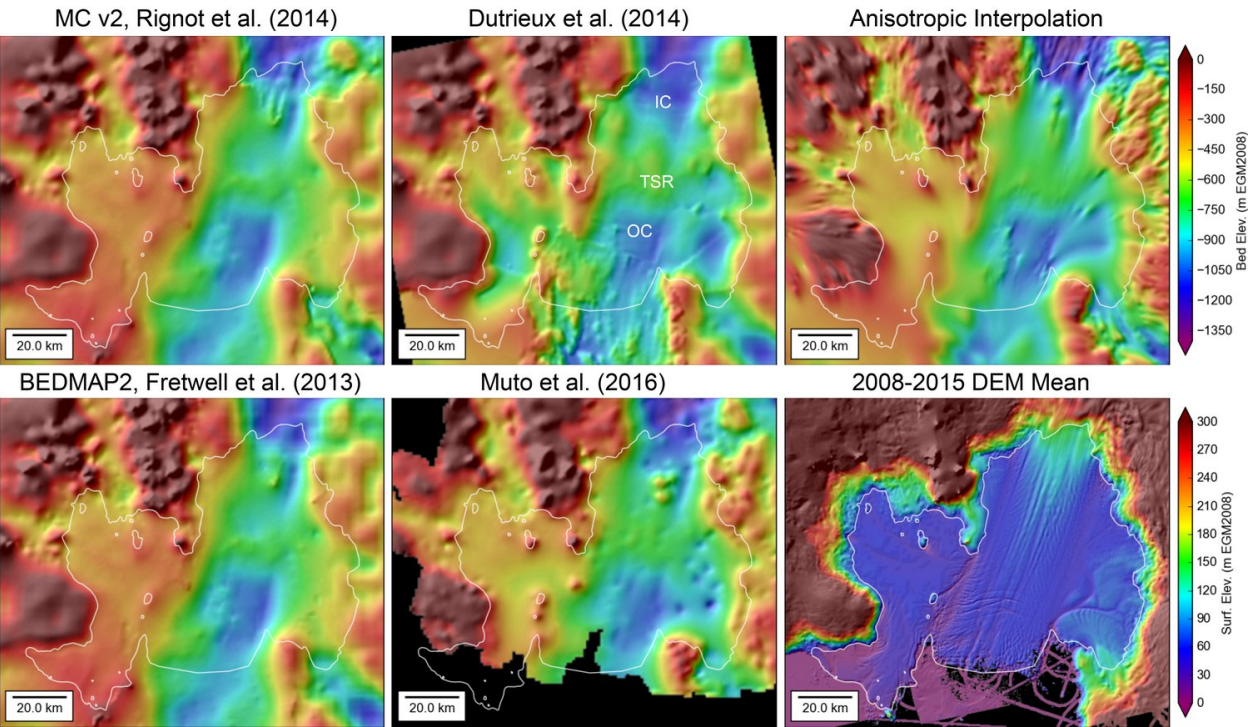


Figure S1: Comparison of available combined bathymetry/bed datasets for PIG ice shelf cavity with mean surface elevation for comparison. See Section 2.6 of main text for details. Top row, center column plot includes labels for "Transverse Seabed Ridge" (TSR), which separates the "Inner Cavity" (IC) and "Outer Cavity" (OC). Note significant differences in inner cavity bathymetry for the different datasets.

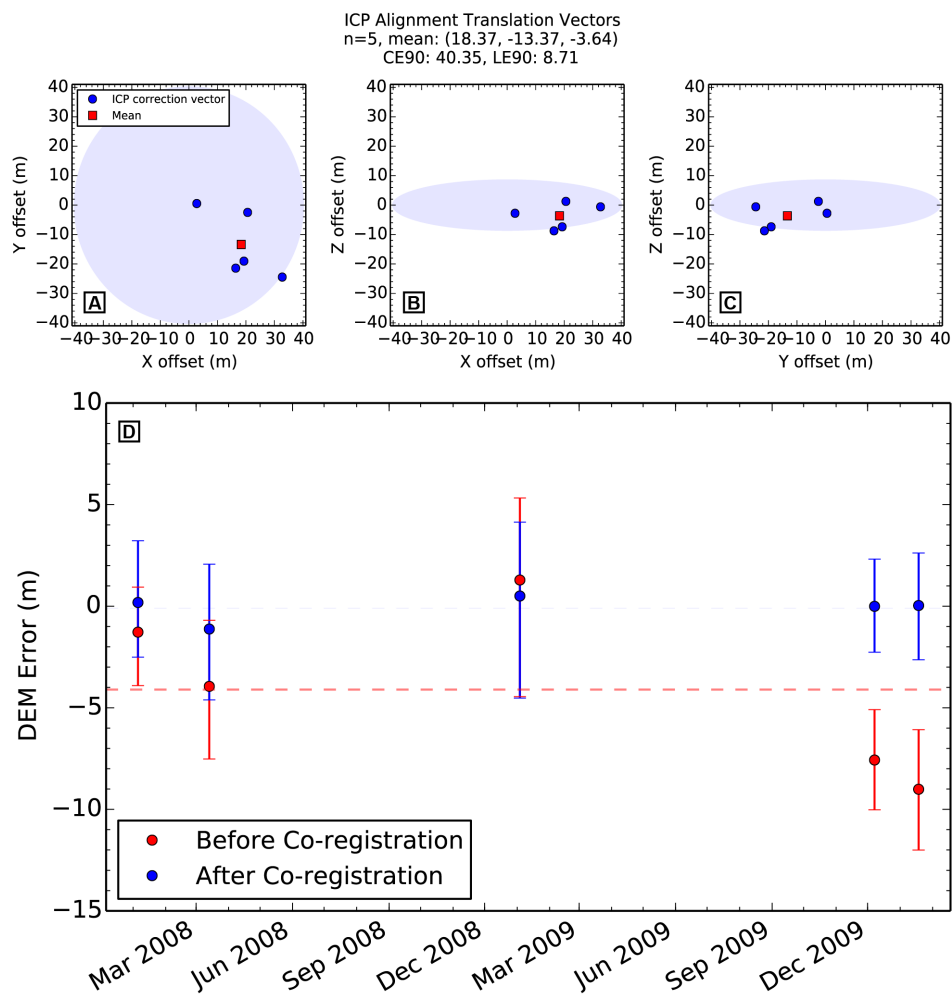


Figure S2: PIG SPIRIT DEM co-registration results. Refer to Figure 3 caption for details.

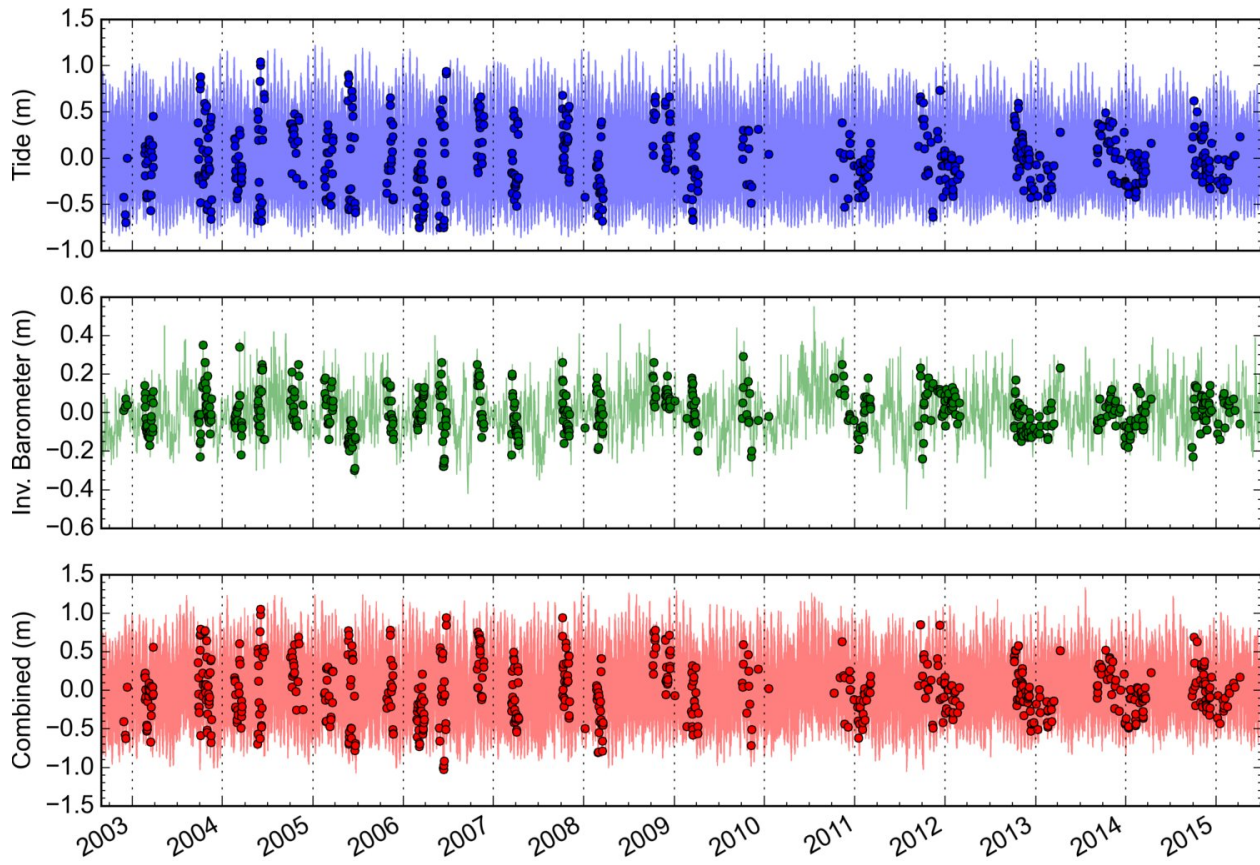
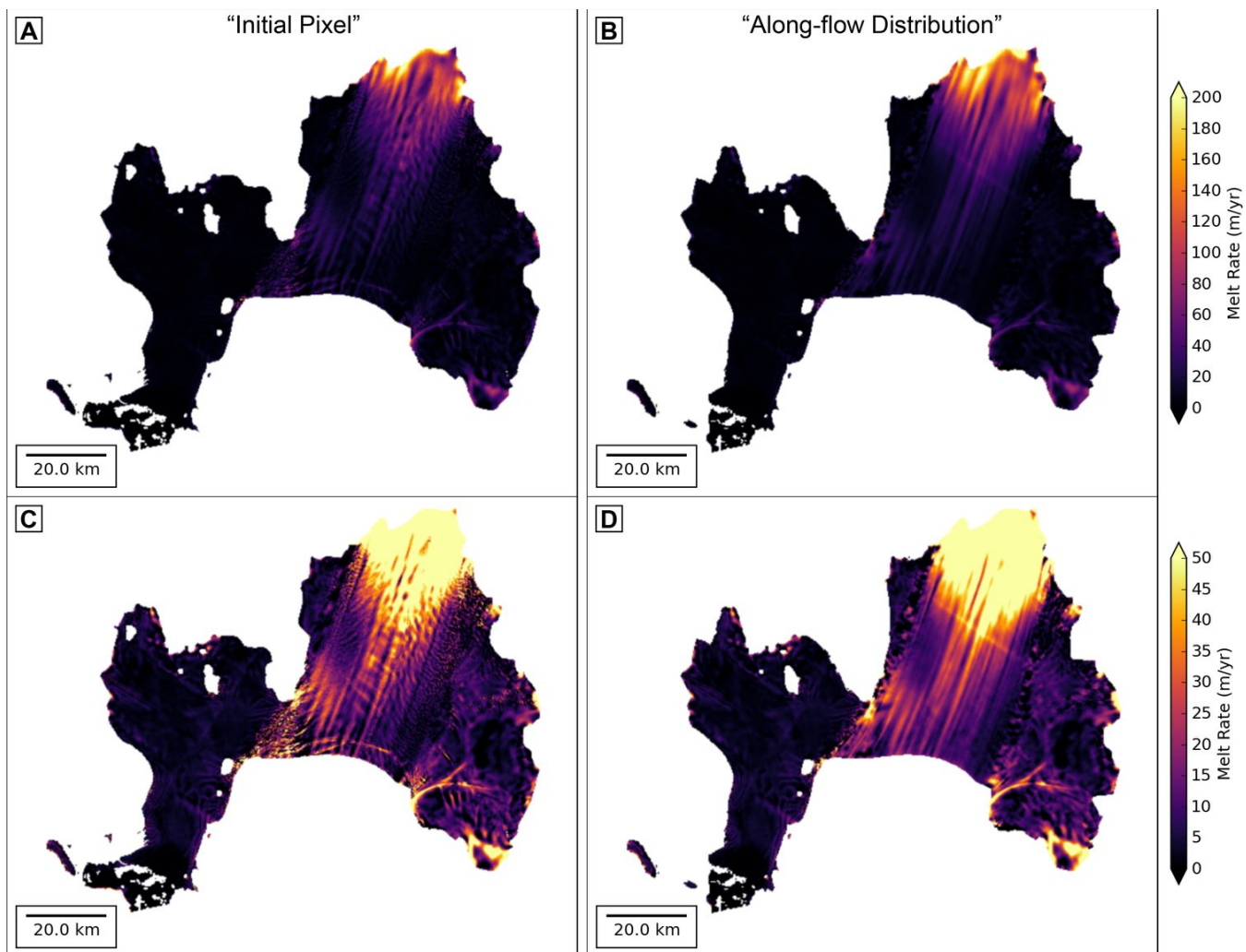


Figure S3: Magnitude of tide and inverse barometer corrections applied to timestamped DEM/altimetry elevation observations (points).



15 **Figure S4: Mean 2008–2015 basal melt rates with different colorbar stretch.**

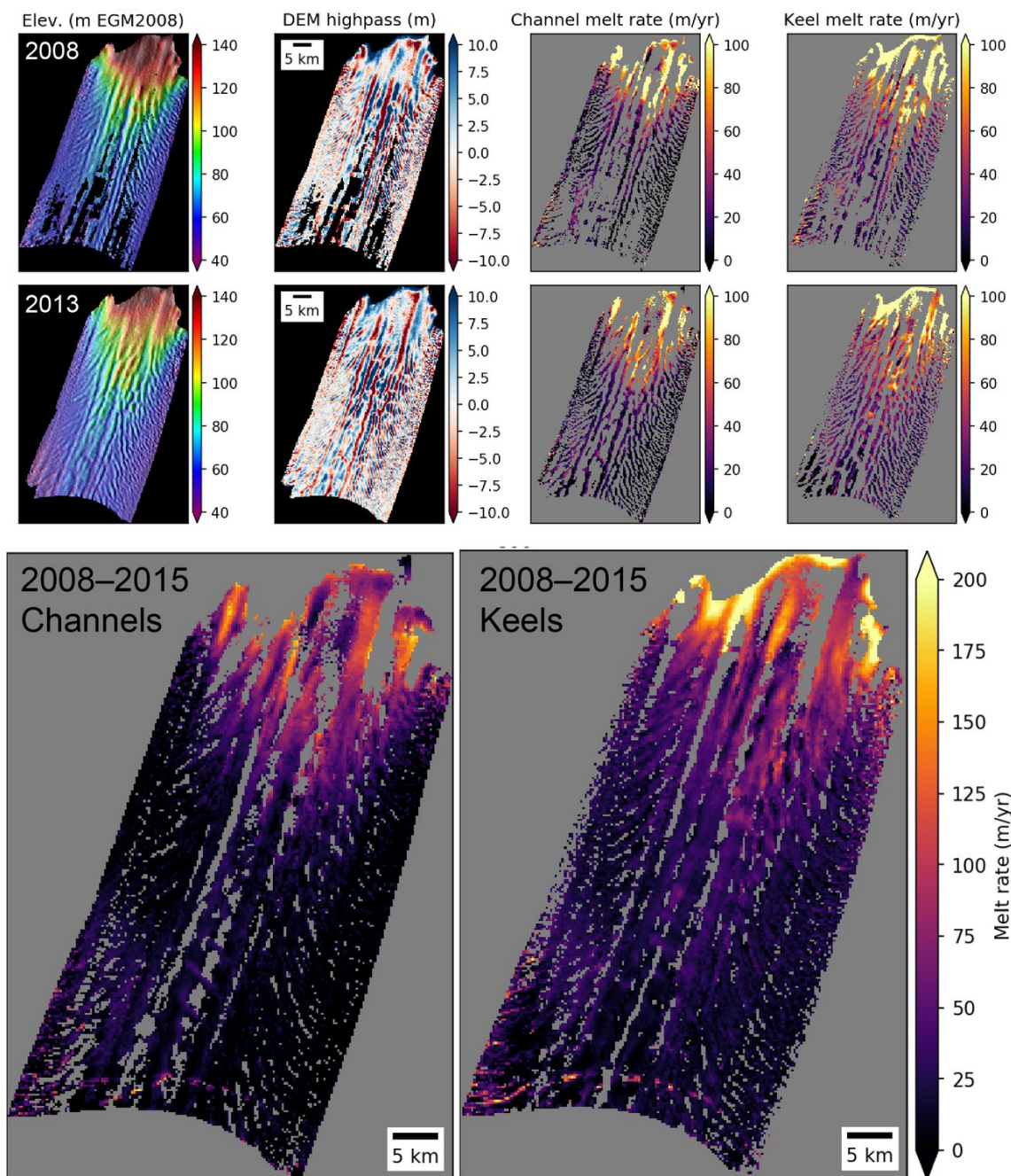


Figure S5: **Additional** products for channel and keel **basal** melt rate analysis. See Figure 10 caption in main text. Top row shows initial-pixel melt rate products **for** 2008–2010, second row show initial-pixel melt rate products **for** 2013–2015. Bottom row shows 2008–2015 composites for channels and keels, with extended **color ramp** stretch to bring out details over the inner cavity.