

Science Advances



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Supplementary Materials for

Basal channels drive active surface hydrology and transverse ice shelf fracture

Christine F. Dow, Won Sang Lee, Jamin S. Greenbaum, Chad A. Greene, Donald D. Blankenship, Kristin Poinar, Alexander L. Forrest, Duncan A. Young, Christopher J. Zappa

Published 13 June 2018, *Sci. Adv.* **4**, eaao7212 (2018)
DOI: 10.1126/sciadv.aao7212

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- fig. S1. Custom Nansen Ice Shelf surface DEM components.

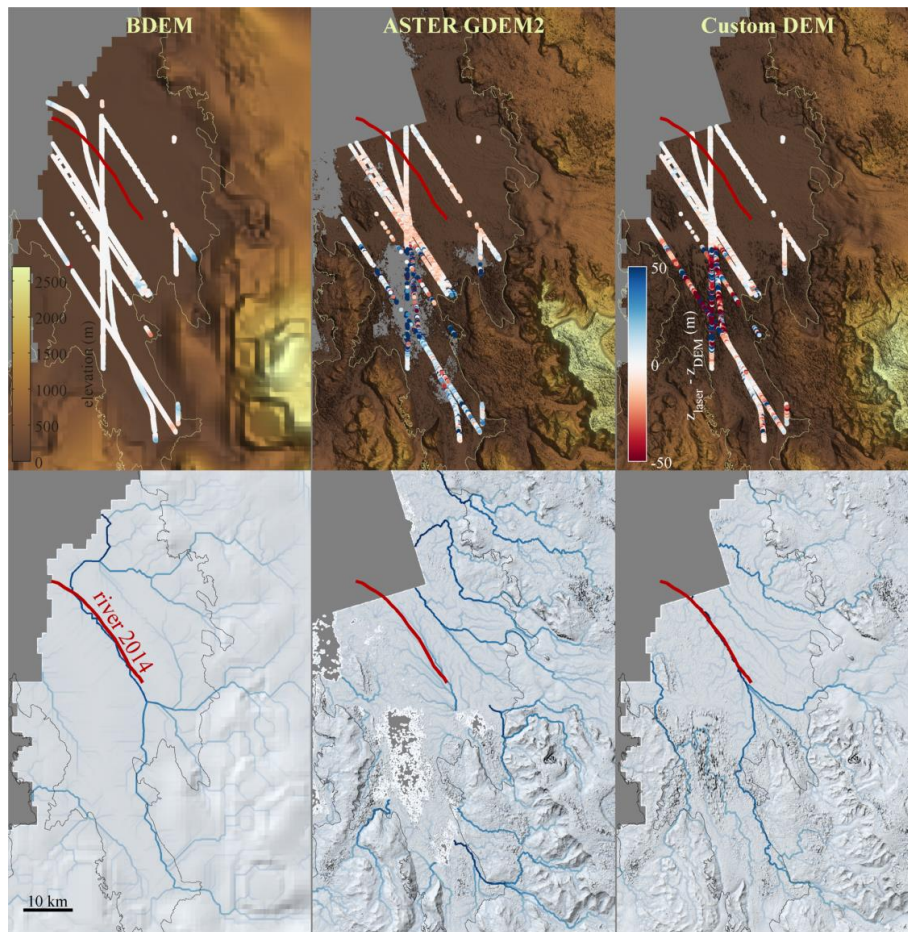


fig. S1. Custom Nansen Ice Shelf surface DEM components. The primary components of our custom DEM for Nansen Ice Shelf are the 1 km BDEM which contributes topographic features longer than ~ 4250 m, and the 1 arc-second ASTER GDEM2 which contributes features whose characteristic wavelength exceed ~ 4250 m. The upper panels show surface elevation in brown tones and the difference between laser altimetry and interpolated DEM values in a polar colormap. Lower panels show flow accumulation for each DEM predicted by TopoToolbox-2. The location of the surface river observed in 2014 appears as a red line in all panels.