



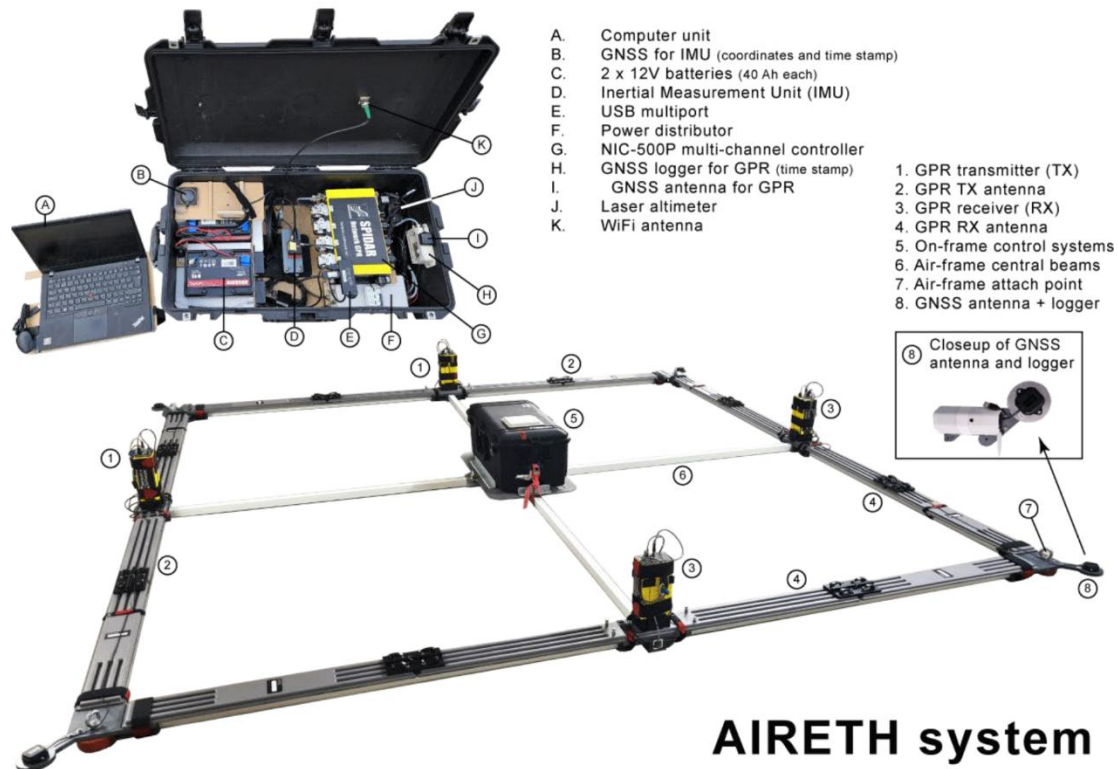
*Supplement of*

**Brief communication: Bed mapping of southern Greenland outlet glaciers using helicopter-borne ground penetrating radar (AIRETH)**

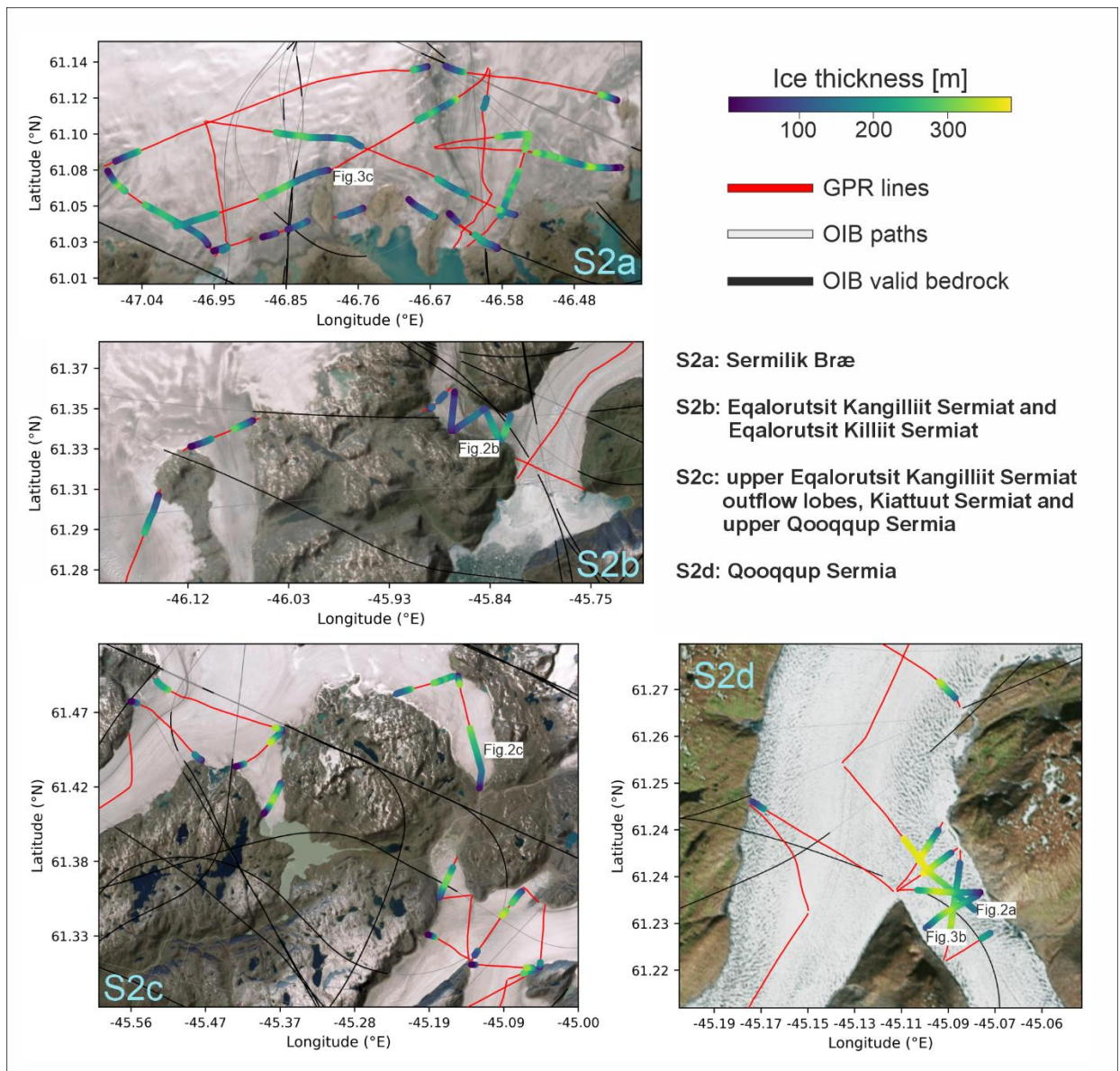
**Ilaria Santin et al.**

*Correspondence to:* Ilaria Santin ([santin@vaw.baug.ethz.ch](mailto:santin@vaw.baug.ethz.ch))

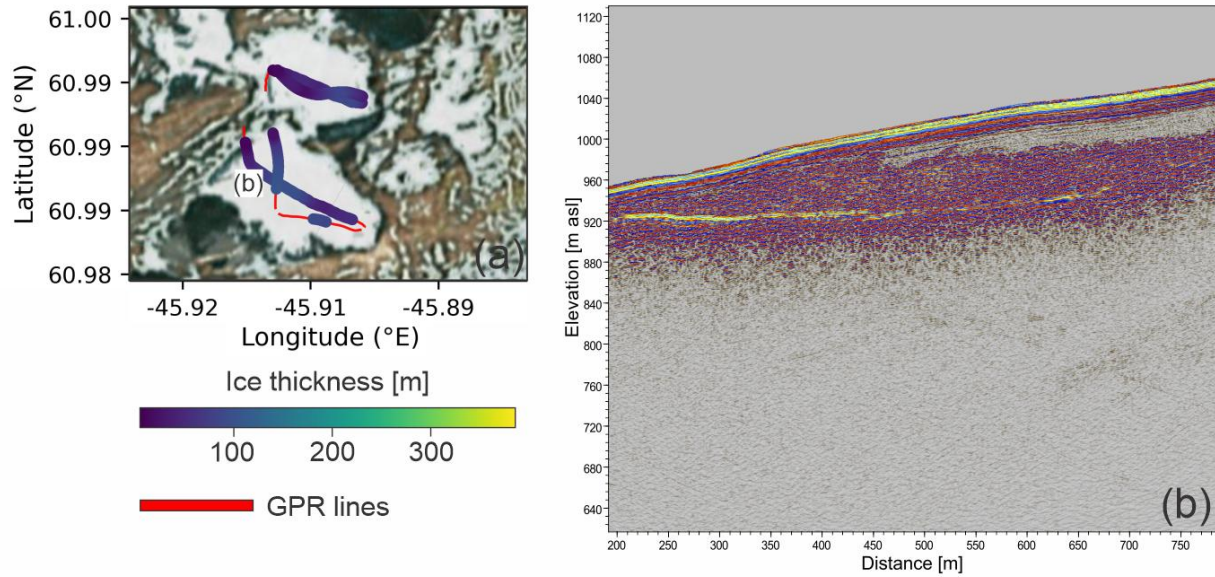
The copyright of individual parts of the supplement might differ from the article licence.



**Figure S1.** Main hardware components of the revised AIRETH system. The electronics case (top left) hosts the computer, power supply, GPR controller and positioning hardware (A-K), while the sling-load frame (bottom) carries the transmitter-receiver antennas, on-frame control unit, and GNSS antennas and loggers (1-8; see legend in the figure). GNSS: u-blox ANN-MB-00, laser altimeter: ASTECH LDM302, IMU: Xsens MTI~670G.



**Figure S2.** Closeups for the four subregions highlighted in Figure1a. Colored points show ice thickness derived from the AIRETH bed picks; red lines indicate AIRETH flight lines. Grey lines show Operation IceBridge (OIB) paths, and black lines indicate OIB segments with valid bedrock detections. Background imagery: Esri World Imagery | Powered by Esri. Glaciers' name are from the official Greenlandic map (<https://arcg.is/1KOb0z2>)



**Figure S3.** Close-up of a prominent internal scattering zone at Narsaq Bræ. (a) Map view showing the AIRETH flight lines (red) and the ice-thickness (colour scale) for successful bedrock retrievals. Background imagery: Esri World Imagery | Powered by Esri. (b) Exemplary radar sections, where a laterally persistent internal scattering/reflective zone is visible within the ice. This may be consistent with a cold-temperate transition surface.