

SALSA Field Report: 31 Dec 2018. Compiled by Matt Siegfried.

SALSA Geophysics/SALSA EM, Location: Mercer Subglacial Lake

- Chloe, Meghan, and Matt took advantage of blue skies to finish up laying out the temporary GPS experiment between Mercer Subglacial Lake and Lake 7, which is meant to connect the dots between the 15 km spaced year-round GPS stations.
- The temporary GPS experiment runs right past LA08, so we stopped on our way back to swap in our spare GPS receiver in place of the broken receiver. LA08 is back up and running. Matt spent the late afternoon after returning to camp trying to recover the data on the bad receiver, with no good news yet.
- Kerry installed an MT station at SLM to see if the differences found within the lake itself by borehole operations are reflective of deeper structural differences. He also helped with the deployment of the downhole camera at the end of the day.
- With our off-site SALSA Geophysics work completed by 1 Jan as planned, we now shift gears to focus on borehole work until the last day of our season (when we will pick up the temporary GPS sites). Tomorrow, Chloe and Matt will install an autonomous phase-sensitive radar near the local year-round GPS station to measure how ice thickness changes over the next year as Mercer Subglacial Lake continues to drain, as well as get started prepping for the final borehole instrument: a fiber-optic cable that we will freeze into the ice column and subglacial lake to measure temperature over the next year (or more!).



Kerry suited up in his Tyvek for deck work.



Matt celebrated the conclusion of our work on time by baking cookies for night-shift crew.