

SALSA Field Report: 30 Nov 2018. Compiled by Matt Siegfried.

SALSA Geophysics/SALSA EM, Day 31 Update. Location: Camp 20

- After a few days of wonderful weather, we woke up to some light wind (ranging from 5-15 kt), which wouldn't be of much interest, but it was blowing upstream instead of downstream. With a weather system certainly in the area, we decided to move forward with work, but with a short leash, ready to pull the plug if conditions changed.
- We changed gears from SALSA EM to SALSA Geophysics and visited the GPS station in the area, which is on Ross Ice Shelf for us to use as a tide gauge. The ice dynamics of lower Whillans and Mercer ice streams are tidally modulated so we use this station as our local metronome.
- We downloaded the past year of data from GPS station GZ20, raised the GPS antenna, unjammed the wind turbine, and reconfigured the receiver to hopefully fix the iridium telemetry issue we've been having. After servicing the GPS station, we installed a phase-sensitive radar to measure ice-shelf basal melt rates with hourly resolution over the next year.
- With a bit more time in the day and weather seeming to hold steady, we dug up and moved one MT station. We had just installed this station yesterday, but with the light winds overnight, a clean 20 hour recording provided high-enough quality data for our shallow mapping experiment. This result verified our expectations that we can "turn" stations every day given good weather and will increase the pace of our data collection.
- Tomorrow, we go back to full-time SALSA EM, turning stations all day to hopefully finish our first cross-flow transect.



Matt works on reconfiguring the GPS receiver, oblivious to the scenery behind him.