

SALSA Field Report: 3 Dec 2018. Compiled by Matt Siegfried.

SALSA Geophysics/SALSA EM, Location: Camp 20

- We took the morning off today after a few long days of turning MT stations, eating a big brunch and watching the atmospheric pressure skyrocket out of the previous few days' low pressure funk. Winds however remained hovering around 20 kts with snow blowing on and off.
- As we prepared for afternoon of work, we found a broken front suspension spring on one of the snow machines. We decided to head off to work on our three remaining machines to install the final MT station on our main cross-flow line, put fresh batteries on the other five deployed stations, and fix a broken magnetometer channel on one of the stations; we're happy to leave snow machine repair until our stations are in the ground.
- While installing the station, one of electrodes' pre-amplifiers (required to overcome the high-contact impedance of the ice sheet surface) stopped working. And in our snow machine shuffle, we left our spares at camp. The auspicious start to our work day continued!
- Because the windy conditions would result in low quality data anyway, we decided to leave the station with a broken pre-amp and continue servicing the rest of the stations. As we left the second station (of five), where we successfully fixed the malfunctioning magnetometer, the thumb throttle of one of the snow machines broke in half, making driving a somewhat painful exercise in thumb gymnastics.
- With the string of issues piling up, we headed home to drop off the newly broken machine. Matt stayed at camp to start in on fixing the two broken machines and arrange for parts to be sent from McMurdo, while Chloe, Kerry, and Meghan went back out with a spare pre-amp to get the last station up and running.
- As Matt and Kerry finished up fixing the broken suspension spring on Kerry's snow machine, the high pressure system finally arrived, with winds dropping to barely a breeze, with perfect conditions for MT data collection. Tomorrow, we will head out to re-battery the entire cross-flow line and hope this wonderful weather brings us better fortunes.
- No photos today because today doesn't deserve one (also I didn't take any)