

## **SALSA Field Report: 21 Dec 2018. Compiled by Matt Siegfried.**

### **SALSA Geophysics/SALSA EM, Location: Whillans Subglacial Lake**

- Winds gusting up to 35 knots overnight lightened a bit overnight, hovering near 20 in the morning, with temperatures still in the high 20s, leaving camp soaked and/or iced in. With stormy conditions the three of the past four days, we had some deferred camp maintenance to take care of before we could head out for the day.
- With weather improving through the morning as we dug out tents and sleds, we headed off after lunch to recover three MT instruments that recorded through the short good-weather window and re-battery the other three deployed MT stations. We would carry the three extra stations with us in case we had time afterward to deploy stations. At the start of the day, we only had three locations left before our 3D survey is complete.
- Our deployment plan at SLW had us working from the inside to the outside of the grid in case we ran out of time; today we paid the price with a “long” drive (13 km, which is only a hair longer than our commute between our camp and the survey site in the grounding zone) in the middle of the day from one end of our grid to the other.
- We were firing on all cylinders recovering the first three sites in under two hours. After re-batterying the next three sites, we had time to install two of the three remaining stations, bringing one back to camp. We have occupied 26 of 27 survey points in our grid, with five stations currently deployed. We have recorded MT data at 42 stations on Whillans Ice Plain this season.
- Tomorrow, ice stream cleanup hits full swing if the winds stay calm overnight. We will bring three instruments back to camp to start in on packing, move one station to the final, 27th grid point, and re-battery the last station as having two stations recording simultaneously allows you to remove uncorrelated noise between the stations and increase the precision of both MT recordings. Once we deploy that final station, we need 6-8 hours of low wind for the MT observation, and then science operations at SLW will be wrapped up.



*Presents under the team's non-denominational holiday plant.*