

Little Dome C

Beyond EPICA Oldest Ice Drilling Site (75.29917 °S, 122.44516 °E)

Situation Report #7, 8. December 2021

**Personnel @LDC:**

Saverio Panichi (ENEA, Camp Leader), Carlo Barbante (ISP-CNR, PI), Olivier Alemany (IGE), Olivier Delanoe (IPEV), Romain Duphil (IPEV), Matthias Hüther (AWI), Calogero Monaco (ENEA), Anthony Pauty (IPEV), Philippe Possenti (IPEV), Michele Scalet (ENEA), Jakob Schwander (unibe), Thomas Stocker (unibe), Gregory Teste (IGE), Remo Walther (unibe)

**Personnel @DC:**

Giacomo Bonanno (ENEA)

**Weather at LDC 9 pm:** sunny

**Meteo at DC 9 pm:** T = -35°C, Wind = 3 knt, Wind Chill T = -39°C



Today sunny and no wind, which are the perfect conditions for very efficient polar work and rapid progress. A heavy convoy of 5 Caterpillars and a Pistenbully arrived from Dome C just before noon. This filled up our recreation tent to the max with 25 colleagues for lunch. After lunch part of the convoy continued to Patch A, about 7 km from LDC, to deliver cargo for the Australian ice coring project. The afternoon was very busy both at the core buffer trench and in the RADIX camp, as well as in the drilling tent. The Caterpillars were used to place the containers at centimeter precision into the trench which required excellent driving skills in the soft Antarctic snow. The ramps had to be groomed regularly lest the heavy Caterpillars grind themselves into the sugar-like snow. Finally, at 6 pm all containers stood in place. Caterpillars also put the satellite antenna in place.



Placement of the antenna for broadband communication. Photo: T. Stocker



At the RADIX camp the dome tent was rapidly erected by inflating the supporting tubes. Rapid access drilling started by placing an aluminum tube as a guide for the melting sonde which gently made the first 6 meters of the RADIX hole. Firn drilling will start tomorrow.

In the drilling tent, the conclusion of the BEOIC firn drilling at 128 m depth could be celebrated. The firn drilling yielded a firn core that was logged and safely stored. These cores will be transferred to Dome Concordia at the next possibility. With the convoy today, also the BEOIC winch arrived and was installed in the drilling tent. The drilling crew is eager to take the next steps on which we will report tomorrow.

Drilling depth at the end of the day: 128.0 m



The LDC Team in front of the BEOIC ice core storage that was installed today. Photo: C. Barbante

TS & CB, 8.12.2021

