

Little Dome C

Beyond EPICA Oldest Ice Drilling Site (75.29917 °S, 122.44516 °E) – Season 2022/23

Situation Report #08, 10 December 2022

Personnel @LDC:

Romain Duphil (IGE), Romilly Harris-Stuart (LSCE), Gunther Lawer (AWI), Matthias Hüther (AWI), Julien Westhof (UCPH), Martin Leonhardt (AWI), Frank Wilhelms (AWI), Giuditta Celli (UNIVE, ISP), Johannes Lemburg, (AWI), Rob Mulvaney (BAS), Saverio Panichi (ENEA), Michele Scalet (ENEA), Andrea Devito (ENEA)

Personnel @DC:

Markus Grimmer (UNIBE), Florian Krauß (UNIBE)

Weather at LDC 5 pm: sunny

Meteo at DC 5 pm: T = - °C, Wind = - knt, Wind Chill T = - °C



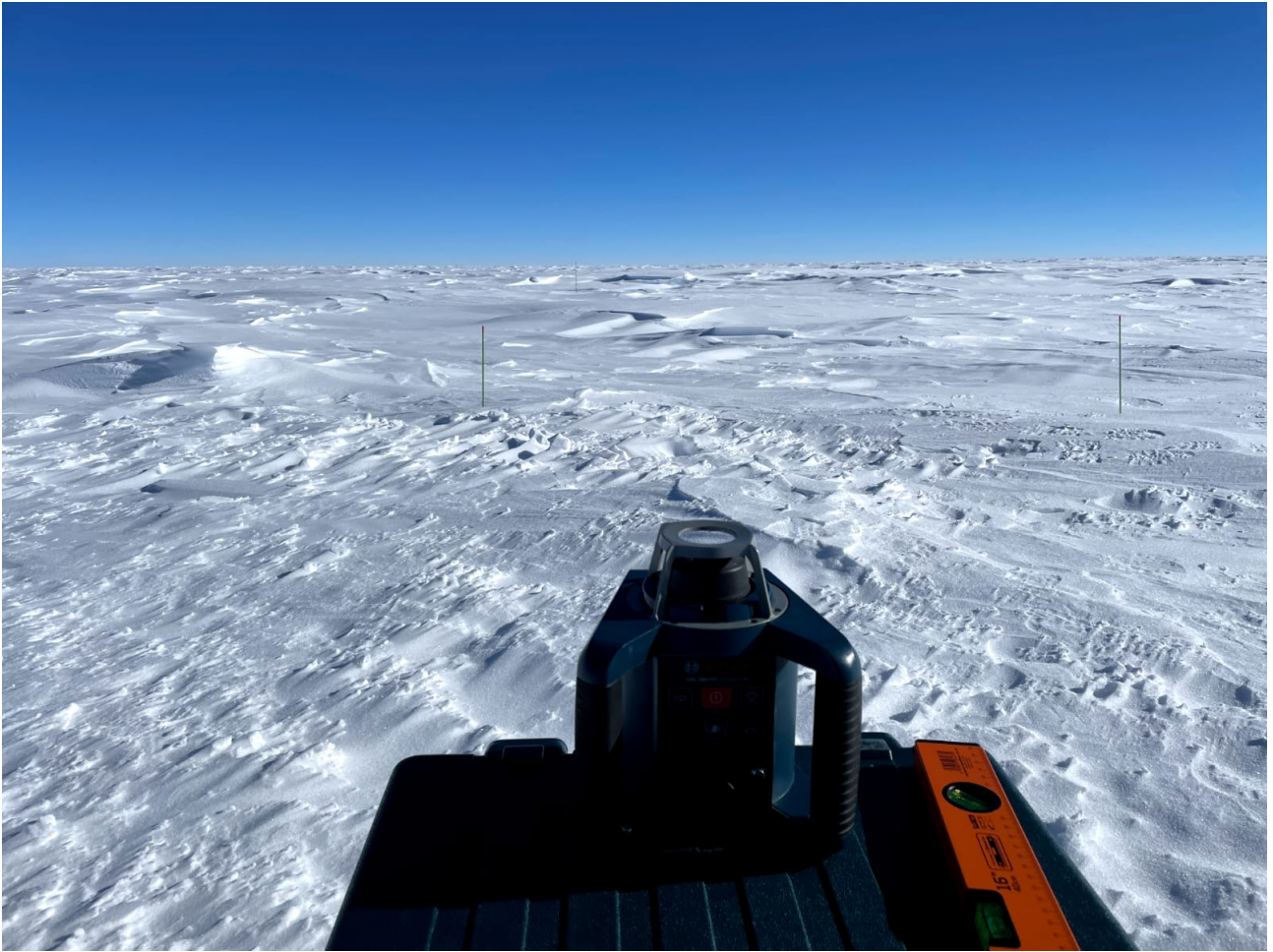
Again a good day of progress in LDC and Concordia. The 2m drill has been assembled and the winch tested and greased. We double checked all the setting and are hopefully ready for the first runs. A lot of fine tuning on the load cell too.

Markus and Florian made new cuts with the Swiss saw and are almost ready to receive tonnes of ice from LDC Camp.

What we did today:

- programmed winch controller to engage/disengage break without slipping: reference to yesterday, found newer version of software and winch control files in an old backup; still slips at high loads when switching off. Not clear if due to bad programming of the controller or the break is too weak to hold higher loads. We will work on a new program version to improve / verify.
- calibrated and pull-tested winch-tower-antitorque system. We are not sure the motor parameters are set ideally. We will clarify and in case disconnect the motor to run an autotune to have optimal setting
- greased winch and checked oil: clear and sufficiently filled
- assembled 2 m version of drill: put pins for 144 mm diameter hole from pilot hole, adjusted tower supports
- arranged electric workshop
- put liquid system into operation
- completed set-up of photogrammetry project
- set-up and tested ApRES radar
- buried solar radiation monitors in the snow surface





A new landscape today. Putting up the fiber-glass sticks for the photogrammetry project.

FW & RM, 10.12.2022

