

TO EGRIP STEERING COMMITTEE MEMBERS, DANISH AND GREENLANDIC AUTHORITIES.

Expedition Permit C-23-7 EGRIP – SITUATION REPORT (SITREP) no. 12, Sunday 9 July 2023

This SITREP covers the period July 3 – July 9, 2023 (inclusive).

Movement of personnel:

- 3 July** Jørgen Peder Steffensen (DK) from Copenhagen to Kangerlussuaq by Air Greenland.
- 3 July** Thomas Blunier (DK) from Kangerlussuaq to Copenhagen by Air Greenland.

Movement of cargo:

- 3 July** Science equipment for Knut Christiansson NSF project staged in warehouse 442
- 4 July** 250 kg beverages from Ilulissat to Kangerlussuaq by Air Greenland

EGRIP camp activities: During the week, camp repaired the sagging floor in front of the entrance to the main dome. This will reduce draft underneath the door in the future. They also removed a sagging bulge hanging from the ceiling in the entrance ramp to the drill trench. Quite a few snowdrifts have been removed from camp. Stapling of the rubber cover on the dome is now finished. Camp personnel opened and emptied the concert hall. Mechanic garage got a new front cover, and the garage was cleaned up. Packed AWI equipment. Carpenters garage got a new snow floor. Fixed a generator stop most likely caused by defect oil transducer. Prepared retro cargo. Took down Ice core storage and tables in science trench.

Drilling:

Drilled two short ice cores (last run 1143, drillers depth 2650.87 m) Weekly production 0.52 m
Since Tuesday morning, the drillers have been working on analyzing the situation at the bottom of the hole. The drill cannot penetrate with any of the different configurations they have had: Broken motor pin. Damaged cutters. No sign of refrozen water. No change in fluid level. Added a little glycol to hole. Lowered camera. Lowered bailer and camera. Camera light source modified. Image stopped by black slime. New drilling attempt, but blocked and damaged cutters. Conical reamer deployed. Reamer damaged and broken pin. Drilled with carbide cutters. Cutters damaged on outside and scratches on outside of drill. 2.5 kg glycol into hole. Repaired top section of drill. Conical reamer deployed again. Logged borehole with DK-logger.

Science:

Logging of the few bits of ice cores. Logging depth: 2663.73 m, 0.22 m logged this week.
Processed small pieces of ice to understand the ice we are drilling right now. Black slime analyzed under microscope. Logger calibration stand setup. Ice crystal studies. The borehole logger showed that we are very close to the pressure melting point at the bottom of the borehole and that there are cavities at 2610 m and 2664 m borehole logging depth where glycol has been added. In these zones we also see decreasing temperatures due to the chemical processes.
No processing this week. The core was packed in black plastic and in crates after logging. Processing depth: 2657.05 m bag 4831. Packing ice cores in boxes and weighing the boxes. Finished documenting 50 ice core boxes for sending out.

EGRIP Camp Population: 14

Weather at EGRIP: Monday to Thursday: Sunny days with ground fog and scattered clouds. Wind between 0 and 9 kt from SW, temperatures between -15 and -3 C. Friday: An overcast and windy day with snowfall in the afternoon and evening. Wind between 2 and 15 kt gusting 24 kt from W turning to S and then back to W. Temperatures between -9 and -1 C. Weekend: Mostly overcast with few spells of broken sky and periods with snowfall. Saturday the wind picked up to 18 kt, gusting 24 kt changing from W to N. Sunday was more calm with winds between 1 kt and 8 kt from N to SW. Temperature have been warm between -10 C and -1 C.

Kangerlussuaq activities:

Maintaining EGRIP website. Writing reports. Working on load plans and passenger transport for the coming flight period, with flights to EGRIP Friday July 14 and Friday July 21.

Weather in Kangerlussuaq/SFJ:

Mixed weather with still low temperatures for the season. Still moderate mosquito counts. The week has been very wet and overcast. Many normally dry paths and tracks are boggy and wet. Water level in the Watson River is increasing, mainly due to rainfall and still relatively low.

EGRIP camp communication:

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