

NEEM - SITREP no. 11, Sunday 5 July 2009.

This SITREP covers the period June 29 – July 5, 2009 (inclusive).

Movement of personnel:

June 29 Dorte Elisabeth Rasmussen (DK) from CPH to SFJ by Air Greenland.

Movement of Cargo:

The following shipments have arrived in SFJ:

8 colli, 68 kg, from NIPR, Japan, AWB no. 117-21635331

Correction to SITREP no. 10:

2, not just one, containers arrived from UCPH by ship

Camp activities:

The beginning of the week

Skiway:

The skiway has lived a quiet life this week, only being touched by human skiers.

Construction:

No major construction work this week.

Drilling:

Drilling is running in a stable mode.

The drill has needed repairs a few times, with one significant problem:

Wednesday, the plastic electrical connections plate cracked in the anti-torque section, leaving a piece of plastic down hole but which was later successfully fished out. A new plate was made from similar plastic material and drilling continued. On Thursday, the new plastic plate cracked during the first run of the day, but a large loose piece was luckily trapped in the anti-torque springs so a fishing trip was not required. The plate was re-clamped and drilling continued. This plastic becomes brittle with the present combination of cold temperature, drill fluid and pressure in the hole. Another part of different design and different plastic material has been made ready for backup.

Maintenance was carried out on the drill fluid transfer and mixing pump which decided to stop.

Driller's depth: 904 m, production this week is 202 m.

The shallow drill is being prepared for operation next week.

Logging:

Logging was restarted at 561.55 m depth. The cores we are now logging have been stored for more than ten days in the core buffer to relax. We bring the cores back to the logging table in the drill trench and log and cut them into 1.65 m long sections. So far, the logging and the sawing does not introduce new cracks in the cores. The logging will go on throughout the brittle-zone, but if the separation into 1.65 m sections repeatedly introduces breaks in the cores we will stop sawing the cores and just fit the drilled core sections together. We are now using rain gutters to protect and hold together the brittle ice core in the core buffer. Logging depth: 598.95 m.

Science Trench:

Processing close-to-brittle-zone-ice requires a lot of patience. The Swiss saw is running at lowest possible speed whereby the number of breaks in the cores is minimized. We will continue processing until we make too much 'damage' to the ice. Over the last week, the ECM and the saw cuts have more and more frequently introduced breaks in the core, but still the processed core quality is generally sufficiently good.

The CFA laboratory is running in a stable mode. The Picarro water isotope instrument has been installed in an insulated box on top of the CFA laboratory and receives a continuous melt water stream from the CFA melt head. The first experiments and calibrations are looking good. This type of instrument may potentially be able to provide continuous on-line ice-core water-isotope profiles in the future, so we are enthusiastic about the possibilities, but keep our expectations low for this first test season of the new instrument. Processing depth: 581.90 m. CFA depth: 252.45 m.

Other science activities:

BAS radar measurements are finished. The BAS radar is a phase-sensitive radar for precise measurements of the displacement of internal layers of the ice sheet. Two lines perpendicular to the ice divide (10 km upstream and downstream of the camp) were surveyed last year, each line consisting of 33 points of measurements. Two bamboos were left at each point for precise repositioning of the instrument. This year's measurements show good resemblance with those of last year and vertical velocity profiles of the ice down to 1000 m depth are obtained by comparing the two sets of measurements. Furthermore, GPS measurements have been made on one line for comparison with the radar measurements. Korean pit has been extended and sampled for isotopes and chemistry.

Weather at NEEM:

Another week with generally nice weather.

Early week mostly clear. Mid-week overcast and some snow. Late week again clear skies. Temperatures from -20°C to -8°C. Sunday rising temperatures, forecasted to rise even further.

NEEM camp population: 31

Kangerlussuaq activities:

The main activity of Monday was unpacking of containers with drilling fluid which was a significant task due to the fact that the containers were tightly packed with drums and had been loaded with lifting gear we do have in Kangerlussuaq. The empty containers have been aligned in front of the warehouse and now house the field gear which has been sorted and thoroughly rearranged. We have tidied up in front of the warehouse.

Pallets with drilling fluid have been built for the coming mission period, and we have worked on getting supplies for the camp.

Weather in Kangerlussuaq:

Changeable weather with showers to and including Friday, then improving. Temperatures around 10°C, rising late week. Mosquito level moderate / high.

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