

**TO EGRIP STEERING COMMITTEE MEMBERS, DANISH AND GREENLANDIC AUTHORITIES.**

**Expedition Permit C-17-5 EGRIP– SITUATION REPort (SITREP) no.10, Sunday 25. June 2017**

**This SITREP covers the period June 19– June 25, 2017 (inclusive).**

**Movement of personnel:**

**19. June**

Ina Kleitz (DE), from CPH to SFJ by Air Greenland

**20. June**

Diana Vladimirova (RU), Steffen Bo Hansen (DK), Pavel Talalay (RU), Anna Domnick (DE), from CPH to SFJ by Air Greenland and Alun Hubbard (UK) from Uummannaq to SFJ by Air Greenland.

**21. June**

Megan Frayne (US), Jason Box (US) Gonzalo Guarda (DK) from CPH to SFJ by Air Greenland.  
Abigail Thayer (US) from KSCH to CPH by NYANG 109<sup>th</sup>.

**22. June**

SFJ to EGRIP: Ina Kleitz (DE), Diana Vladimirova (RU), Steffen Bo Hansen (DK), Pavel Talalay (RU), Anna Domnick (DE), Alun Hubbard (UK), Megan Frayne (US), Jason Box (US) Gonzalo Guarda (DK) Abigail Thayer (US) from SFJ to EGRIP by NYANG 109<sup>th</sup>.

Sisimuit to SFJ: Ben Kiesling (US), Iben Koldtoft (DK) with Air Greenland

EGRIP to SFJ: Carlo Barbante (IT), Hermenegildo Moreno Cela (E), Peter Ross Edwards (US), Anne-Katrine Faber (DK), Kévin Bastien Fourteau (FR), Ignacio Garcia Garrido (E), Ramon Hernando de Larramendi Martinez (E), Sverrir Aevvar Hilmarsson (IS), Christian Holme (DK), Zhang Qi (CH), Kim Jesper Jørgensen (DK) Nicolai Gregers Worm Jorgensen (DK), Nanna Bjornholt Karlsson (DK), Josef Richard Kipfstuhl (DE), Kasper Overgaard Nielsen (DK), Kerim Hestnes Nisancioglu (NO), Bettina Ovgård Petersen (DK) Frederik Gregers Ratzow (DK), Jens-Jacob Herjulf Simonsen (DK) from EGRIP to SFJ by NYANG 109<sup>th</sup>.

SFJ to CPH: Ben Kiesling (US), Christian Holme (DK), Carlo Barbante (IT), Kerim Hestnes Nisancioglu (NO) from SFJ to CPH by Air Greenland.

**23. June**

Basil de Fleurian (FR/N), Mayu Herbst (DK), Khangyun Lee (KOR) from CPH to SFJ by Air Greenland.  
Nanna Bjornholt Karlsson (DK) from SFJ to CPH by Air Greenland.

**24. June**

Sverrir Aevvar Hilmarsson (IS), Anne-Katrine Faber (DK), Kévin Bastien Fourteau (FR), Nicolai Gregers Worm Jorgensen (DK), Josef Richard Kipfstuhl (DE) from SFJ to CPH by Air Greenland.

Andrew Hoffman (US), Bent Neumann (DK), Nora Loose (N), Karl Emil Nielsen (DK), Søren B. Nielsen (DK), Bo Vinther (DK) from CPH to SFJ by Air Greenland.

## 25. June

Andrew Hoffman (US), Bent Neumann (DK), Nora Loose (N), Karl Emil Nielsen (DK), Søren B. Nielsen (DK), Bo Vinther (DK), Basil de Fleurian (FR/N), Mayu Herbst (DK), Khangyun Lee (KOR) from SFJ to EGRIP by NYANG 109<sup>th</sup>.

Sarah Miche P. Berben (B) Thomas Blunier (CHE), Jason Eric Box (US), Emilie Francoise Nathalie Capron (FR/DK), Dorte Dahl-Jensen (DK), Anna Domnick (DE), Megan Louise Frayne (US), Johannes Ekkehard Freitag (DE), Sarah Catherine Harvey (US), Lisa Lolk Hauge (DK), Alun Lloyd Hubbard (UK), Jesper Baldtzer Liisberg (DK), Valerie Anne Morris (US), Fumio Nakazawa (JP), Anaïs Orsi (FR), Talalay Pavel (RU/CHN), Trevor Popp (US), Henrik Park Preisler (DK), Nicolas Rathmann (DK), Jason Leigh Roberts (AUS), Jakob Schwander (CHE), Anders Mortensen Svensson (DK), Paul Travis Vallelonga (DK), Remo Walther (CHE). From EGRIP to SFJ by NYANG 109<sup>th</sup>.

### Movement of cargo:

**22. May** 9041 kg (19932 lbs) 3 x AF pallets: AF.1) 11 x drums E-240, plywood, Food, 15 x AWI ice core boxes. AF.2) 8 x drums coasol, 1 x drum E-240, plywood, science equipment for Alun Hubbard, K. Lee and AWI. AF.3) Fresh food, core troughs, personal bags,  
From SFJ to EGRIP by the NYANG 109<sup>th</sup>

5149kg (11352 lbs) 3 x AF pallets. AF.1) Ice core boxes with ice core and surface samples. AF.2) 16 x empty drums, various science equipment including Eliza Cook centrifuge and consumables, AWI boxes. AF.3) Wind sled equipment, personal luggage.  
From EGRIP to SFJ by NYANG 109<sup>th</sup>

**25. May** 3235 kg (7550,4 lbs) 1 x AF pallet with CIC ice core boxes with food, AWI boxes with food, 200L drum of glycol, personal luggage, pistonbully parts and 150 core troughs. Loose load with wooden beams.  
From SFJ to EGRIP by the NYANG 109<sup>th</sup>

5169 kg (11,396 lbs) 3 x AF pallet with Swiss gear and luggage, PADIX equipment, Firngas equipment, including silco cans and zarges boxes, and Alun Hubbard/Jason Box drone.  
From EGRIP to SFJ by NYANG 109<sup>th</sup>

### Camp activities:

On Monday the 19<sup>th</sup> at 4 pm, the camp first sighted the Inuit Windsled IceRiver 2017 expedition sledge, at a distance of 28 km out. The sledge was also observed on the new radar system, with alerts first received when the sledge was about 6 km from camp. The team of five arrived next to the skiway at 8pm after a month crossing the ice sheet from Kangerlussuaq. This was a busy week and saw the arrival of two skiers, and much time was dedicated to building retro pallets and preparing the skiway for their arrival by Chris and Sverrir. The skiway had been marked with some deep ridges from C-130 take-off attempts on the 10<sup>th</sup> June (10 slides required). Camp received Skier 42 with passengers and three pallets on the 22<sup>nd</sup> and additional grooming was requested from them to remove undulations in NE end and prepare for next flight on the 25th. Food from both flights was documented, unpacked and stored. The staircase to the science trench was opened.

**Science activities:**

At the beginning of the week, the main core processing stopped until next year, but not before the science trench team finished processing the top 100 m of the ice core and had a record of almost 40 m ice processed in one day. In total, the upper 350 m of the main core has been processed. The measurement of water isotopes reached 350m depth, although they will process the upper 100m until in the following weeks. The physical property studies will continue until 350 m depth in the coming weeks. Jason Box did maintenance of weather stations, and Alun Hubbard successfully launched a drone from the top of the dome, for validation of satellite measurements.

In addition;

Firn gas sampling has terminated

AWI radar measurement performed 20 km SW of camp (75.474; -36.395).

German snow sampling continued.

Japanese snow and aerosol experiments continued

Water vapour sampling, methane sampling, boundary layer and meteorology measurements continued

Work on the "egg" project continued

Continuous sampling for tephra continued

**Drilling activities:**

Main Core Drilling: At around 450 m depth the loggers noticed the first signs of brittle ice. All of the deeper core drilled this year will be stored in the core buffer to relax for next year. The stored core includes the 'brittle zone' ice (some 500-1200 m depth) that easily breaks due to the high bubble pressure. The loggers tested 'netting' of ice core that may become a useful technique to avoid ice core pieces popping off brittle ice cores. Drillers retrieved cores in very nice condition, A 1 m section of ice core was lost by the drill in the borehole, equating to around 10 yrs around 4000 years ago. Depth logging and core-core matching will help with reconciliation.

June 19. Logging depth: 437.03 m.

June 25. Logging depth: 490.06 m.

Swiss RADIX Drilling: Early in the week, casing was successfully mounted in the Swiss RADIX drill borehole and first drilling attempts were made soon after, although some technical issues with the chips separator needed ironing out before they resumed at a faster pace. The drill penetrated some 15 m in about 20 min, proving that the RADIX drill is indeed a rapid access drill. A leak in the system leads to loss of drill liquid and the drilling was stopped.

Firn Gas Drilling: A camp was set up 1.2 km S of main dome in the clean snow area. Firn gas samples were taken progressively downhole by interchanging drilling and sampling by a bladder. Unfortunately, the bladder got stuck in the borehole at some 50 m depth inhibiting sampling of the lock-in zone. The bladder was eventually recovered by use of glycol, but too late for continuing the sampling.

AWI Drill: Running in parallel to these was conducted a test of an intermediate German drill.

**EGRIP Camp Population:** 36 until WindSled arrival -> 41 until June 22nd -> 36 until June 25th -> 22 thereafter.

**EGRIP iridium numbers:**

**NOTE: Primary number different from the number given in the field plan.**

Primary no.: +8816 777 72510

Iridium Openport

Secondary no.: +8816 234 9137

Field leader, handheld satellite phone

3 m satellite dish installed, and camp has access to LAN and the web.

**Weather at EGRIP:**

Good weather observed in camp, with blue skies on most days and low wind speeds between 2-14 kt, mostly from the SW. temperatures were between -4C and -20C.

**Kangerlussuaq activities:**

A high volume of passengers (including DVs) was received and managed during the week; to and from SFJ, EGRIP, and KISS. Additionally, four pallets were built and sent to EGRIP and 6 pallets were received and unpacked at SJF, including around 30 ice core boxes which are now in the freezer. New strip-lights were installed by JJ in the warehouse, and the warehouse door sensor was fixed by Jakob. Meetings were had with the 109<sup>th</sup> to try to negotiate additional SAAM and training missions and discuss the skiway condition.

**EastGRIP field operations office**

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**Weather in Kangerlussuaq/SFJ:**

The weather has been very warm. Temperatures between +3 at night and +23C during the day.

Many mosquitoes.

*EGRIP Field Operations office,*

*Eliza Cook*

*Marie Kirk*

*Marius Simonsen*