0	ETH 10 m	69°33'27"N, 49°21'27"W	1176	1990.4	GOES	8030A1E0	207/14	00:43:40	-
01	Swiss Camp	69°33'27"N, 49°21'27"W	1176	1990.30	GOES	80300118	207/14	00:41:00	04458
02	Crawford Point1	69°52'29"N, 47°01'21"W	2022	1995.39	GOES	8030126E	210/13	00:41:10	04456
03	NASA-U	73°50'27"N, 49°31'20"W	2420	1995.41	GOES	8030D770	206/10	00:18:00	04443
04	GITS	77°08'14"N, 61°02'04"W	1869	1995.43	Argos	107282	-	-	04435
05	Humboldt	78°31'40"N, 56°50'29"W	1995	1995.47	Argos	107283	-	-	04432
06	Summit	72°34'46"N, 38°30'20"W	3215	1996.37	GOES	803027F4	208/10	00:41:20	04418
07	Tunu-N	78°01'06"N, 33°58'10"W	2052	1996.38	Argos	107285	-	-	04425
08	DYE-2	66°28'54"N, 46°17'22"W	2099	1996.40	GOES	803064FE	210/16	00:41:30	04464
09	JAR 1	69°29'38"N, 49°42'35"W	897	1996.47	GOES	80303482	206/14	00:41:40	04452
10	Saddle	65°59'59"N, 44°30'06"W	2467	1997.30	GOES	80307788	213/16	00:41:50	04485
11	South Dome	63°08'56"N, 44°49'00"W	2901	1997.31	GOES	80305164	213/18	00:42:00	04492
12	NASA-E	75°00'05"N, 29°59'13"W	2614	1997.34	GOES	8030E2EA	226/7	00:18:10	04420
13	Crawford P2*	69°54'48" N, 46°51'17"W	1990	1997.36	-	-	-	-	04450
14	NGRIP*	75°05'58"N, 42°19'59"W	2941	1997.52	Argos	24739	-	-	04440
15	NASA-SE	66°28'41"N, 42°29'46"W	2373	1998.30	GOES	8030870C	214/15	00:42:20	04488
16	KAR*	69°41'58"N, 33°00'21"W	2579	1999.38	GOES	80304212:22	(223)	-	-
17	JAR 2*	69°24'53"N, 50°05'34"W	507	1999.41	GOES	8030947A	206/14	00:42:10	04460
18	KULU*	65°45'30"N, 39°36'06"W	878	1999.46	GOES	-	217	-	-
19	JAR3*	69°23'40"N, 50°18'36"W	283	1999	-	-	-	-	-
20	Aurora*	67°08'09"N, 47°17'32" W	1798	2000.47	-	-	-	-	-
21	Petermann Gl.*	80°41'01"N, 60°17'35"W	37	2002.40	Argos	107284	-	-	04430

22	Peterman ELA	80°05' 45" N, 58°07' 54"W	924	2003.40	Argos	107284	-	-	-
23	NEEM	77°26' 31" N, 51°04' 56"W	2461	2006	GOES	8030C406	204/8	00:40:50	04436
24	EGRIP	75°35' 36" N, 35°59' 19W	2600	2014	GOES	8030947A	219/8	00:42:10	
30	LAR1	68° 08' 28" S, 63° 57' 07"W	53 m	2008	GOES	80304212	350/12	00:43:30	
31	LAR2	67° 34' 35" S, 63° 15' 27"W	42 m	2008	GOES	8030A1E0	351/13	00:43:40	
32	LAR3	67°01' 54" S, 62° 39' 01"W	42 m	2008	GOES	8030B296	352/14	00:43:50	
41	PE-Air	71° 57' 00" S, 23° 20' 44" E	1407	2013	ARGOS	135796	CBA6114C		
42	PE-Gun	72° 15' 20" S, 23° 14' 41' E	2346	2013	ARGOS	135797	CBA6115F		
43	PE-Blu			2014	ARGOS	135798	CBA6116A		

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2016

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Field season 2016

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5.5	Swiss Camp put-in + CP1 service
6.5.	DN10 and JAR1 station download
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7.5	Redrilling JAR1
9.5	10M + SC AWS downloaded
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11.5	SC Gps programming
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19.5	S-Dome AWS, Dye-2 AWS
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0 | 01 | 02 | 03 | 04 | ETH 10 m | Swiss Ca | Craw | 69°33'27"N, 49°21'27"W | 1176 | 1990.4 | GOES | 8030A1E0 | 207/14 | 00:43:40

22.5 Summit BSRN towers, som tower

22.5 Extended AWS, BSRN towers

23.5 NASA-E; EGRIP

24.5 NASA-U, EGRIP move

25.5 NEEM, GITS

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31.5 Al Gore discussion

2.7. Set up for UP18 / Began

9.7. Swiss Camp, Up 18 visit Al GORE

GPR 29.2.16

1,3 GHz

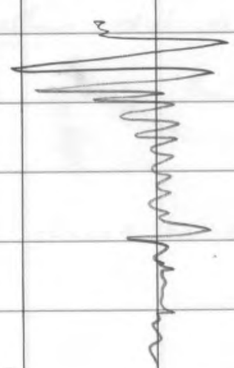
400 MHz

The cryosphere 9, 691-701, 2015

Quantifying meltwater refreezing along a transect of sites on the Greenland ice sheet

Sud ic [illegible]

GPR RD3 like 1 GHz



Tents for Swiss Camp

Martin	AO	1
Leo		2
Helge		3
Doug		4
Bianca	12x12	1
Roni		
Roni		5
Sip		5

Swiss Camp melt 7.3.2016

Calculated from AWS data 2015

JD 167 start of surface height change

0,8 m above ground

JD 205 height at 1.9 m

$\Delta h = 1.1$ m

Snow survey spring 2015 = 115 cm

⇒ JD 205 all snow melted

⇒ ice surface did not change in height during the summer?

⇒ station should be ok this year?

24.3.16 Main Probe Priorities

1. Density profile at least 1.5m
2. SMP 6-10
3. Temperature profile to 1.5m
4. ICC cube profile
5. IR picture of profile
6. SMP more than 10, ...
6. or Sufan SSE transects

IR sufan: Summit, EGRP, Swiss

S-Pans: Logware in + out

NASA-SE

Instruments

- Shot + long crane radiometer
  for albedo profile at base camp
  → insurance to plane
- heating blanket
  → Trimble GPS, SC
- Leno + Hanwad - emit
  → 4x4 beams for Snow Camp
- 3 snow boxes from VECO ← (x)
  → cold transport from Kangerlussuaq - ZHR
- 3 snow to Summit
  ⇒ 50 flags with flags ← (x)
  → Hole file from transit to Nuuk
  ⇒ boards + beams wood

CP1 to SC: ca. 4 days, 1 dg.

→ GPR Marie Thesis

Flight 2

Alu D	63	Alu	131
Alu F	91	Generat	35
green bag	33	Batteries	13 x 2
Alu C	51	Alu	55
Trimble	37	Red bag	21
"	36	Alu	87
black box	116	Ski	33
Alu	53	SMP	42
Alu B	55	SMP	42
Alu	35	Food	118
Alu	114	Food	116
Alu	68	Food grey	166
Alu	47	Alu	50
Alu	69	Sled wood	123
Yellow	46		1045
long blue	59		+ 773
	773		1818 lbs

420kg + 700kg = 1120kg + 8 pax

826kg + 3 pax

Swiss Camp put-in — 5 May 2016

CP1

added to google sheet correcting:
- must be 53 instead of 52.
- Minutes swapped between lat and lon.

69° 52' 27.7' N

47° 01' 27.8" W 1948 m

At CP no data on the logger, it stopped recording one month after the last visit in May 2015. Had to reload the CP GOES Campbell program to work again. Had to change only the upper snow sensor, all the rest was working. Sat transmission was stuck, GPS was not syncing, reset all but sync did not occur before we left. Twin Otter arrived 4.5 h after our landing at CP1.

We had two loads to Swiss Camp

Crew: Koni, Bianca, Martin Schneebeli, Lion Schmid, Vera Grossberger, Nelge Collins, Ravi

5 May 2016 Swiss Camp

The camp was in great shape, no snow in the tents the platform was slightly bent on the kitchen tent. I have not figured out yet why.

All tents were put up when Brandt and I arrived from CP1, It was quite warm and low winds.

Swiss Camp 6 May 16

PN10: 69° 30' 04" N
added to google sheet
49° 33' 34" N 1005 m
not done looking at the data yet

PN1: 69° 29' 37" N
added to google sheet
49° 42' 41" N 828 m

Dde loggs stopped on April 6, 2016 recording, but have no idea why?

GPS had power but recorded only every day till end of Dec 2015. At least it worked that far! But no data files in January 2015.

Towers need to be retrieved, as the GPS DUO towers, will do that tomorrow

7.5.16 CP1 and DN10

Redrilling both sites is planned.
There was 3m melt the previous season
but I did only observe 0.5 m
melt below the Swiss Camp station
and no melt at the SC AWS, only
the snow melted away.

CP1 re-drilling 7.5.2016

Put the beam 4 m into the ice,
connection is just at the ice horizon,
with 60 cm snow.
I cut the power cable to the GPS,
but repaired afterwards.
Had to reload the Campbell program
but need to check all the channels
next time, Pressure seems to be off
and needs a special parameter in the
program. Also HHP 45 not sure if they
were working.

→ Down to had no time for drilling,
will do it next days.
It was a calm and warm day!

monday
late evening 18-21 UTC
clear
Tues - South-westerly
decrease winds
morning
30 knots
after which -

Tuesday 6pm update
cloudy conditions, 0 - -10°C
becoming E-SE 10 knots

Wednesday
cloudy to fair
winds SE 8-15 kts
temp 0 - -10°C
with flags

Swiss Camp 5.5.16

AWS Tower: downloaded data from CR1000 and all rooms on the logger, wind speed 1 not working, all the rest ok. (*)

10 m Tower: Downloaded CR1000 and all data up to today. Memory card had only values from April 2016 HMP 45 lower level not working because CR Basic program and the control Port 6, need to write a newer HMP 45.
Snow height instrument stopped yesterday.

(*) On April 11, 2016 there was a problem on Temp. sensors showing +20 (Tc only) but it was not that we also data logger stopped recording on memory chip.

10.5.2016 — 10 m Tower

Adding a new HMP155A Temp/Hum sensor at the low level (so I dont need the control port 6 on CR1000 which is used for the Radar.

Yellow – Temp SE
Blue – Hum SE
White, Black, Clear = ⏚ ground
Red – 12V (SW 12V)

Celsius multiplier 0.14
offset -80
Humidity multiplier 0.1
Volt SE (X, 1, mV2500, 2, 0, ∞, 60Hz, 14, 80)

10.5.16

CS 500: black – temp
brown – RH
Green – Signal + Power Ref
Red – Power
clear – shield
This is the upper sensor (10m).

11.5.16 Swiss Camp → yesterday 10.5.16

Snow party Martin, Lino, Maiy, Dene left for CP1 and arrived after ~ 7 hours with lot of new snow. It was nothing most of the day. Yesterday they made only 5 km on foot due to very soft snow. They have to travel at night, when the snow will refreeze.

Swiss Camp GPS 11.5.16

New GPS setting for long-term recording.

(A)	1 April 2016	→ 1 OCT 2016	5424
(B)	1 Dec 2016	→ 10 Dec 2016	240
(C)	1 Feb 2017	→ 10 Feb 2017	240
(D)	1 April 2017	→ 10 OCT 2017	5424

ϕ 469 R7 at Swiss Camp } both programm
ϕ 471 at down 10 }

K 5196 home Swiss Camp shows 1996 dates for new files → taking home.

I 3532 same problem, ht date 9/26/96 ! for newly generated files.

13.5.16 Crawford traverse group

1/2 tank fuel left around

1/4 tank up 50km from S

1 jerry can.

up 50 and up 16 need new GPS units

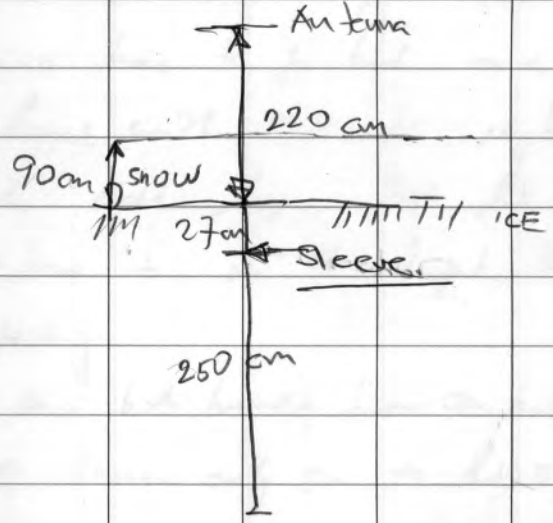
9

up 18?

DML0 13.5.16

Radiating Cent could not finish the job, the batteries went empty after we drilled twice - could not get the ice core out of the hole after 2m depth. Drilled twice to 2.5m.

There was 1m of snow with 3 Core ice layers, one of which 5cm pure ice - closest to the top.



14.5. Snow Traverse Prep

15km SC from up 50km

moya, zhadat, Hisi Ras

→ Need tomorrow 4 canister fuel

Dinner like Rice, other,

Breakfast muesli + joghurt

chocolate, nuts, anything else?

DARS 14.5.16

Installed GPS unit 2 (former DN10 unit)

40180 and it started recording.

– Data logger not working, even

when connected with power cable

from satellite transmitter. (?)

Not sure why, recording worked for

1.5 days after my service a few

days ago

2016-05-08 stopped but had 13.7V!

Will have to go back and check data

logger with Voltmeter, maybe replace

the data logger. First lets pull some

cables to see if I get the CR1000

working

= Seems both humidity sensors are out

→ Pressure only gives to full value

15.5.16 JR1

went back to JR1 and updated the data loggers. It was the first SD1 snow sensor I bought which gave a signal that blocked the data logger. I changed the data loggers, but the problem (no screen and could not connect) did not go away. Then I connected different sounds until I found out the SD1 was the problem.

All working again (not SD1) and also checked the satellite transmitter which seems to work.

15.5.16 Science Camp:

Things to do:

- to run to town, transmitter test
- Snow survey at both AWS's
- up 16 GPS by shadow
- up 50 GPS by plane?
- is CP1 working now?
- Why is Trimble giving me 1998 dates for the files?

7208.jpg dropped backup!

16.5 Swiss Camp

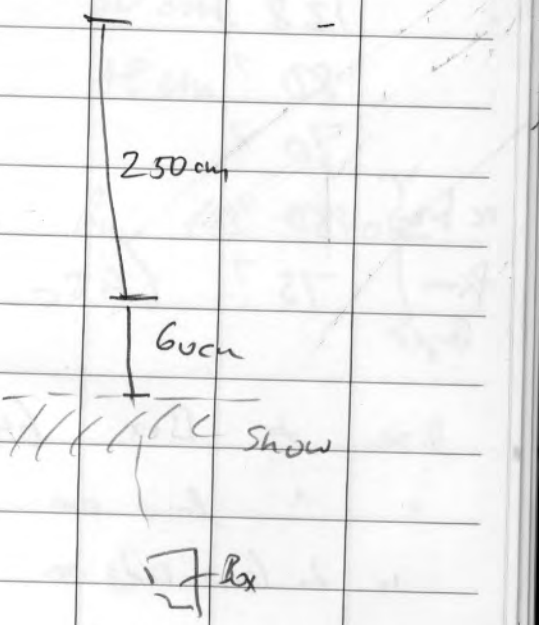
Martin Schneebeli + Nena Freudiger arrive at Camp after more than 6 days on traverse. They pulled the radar sledge for 100km from CP1 to SC.

Preparing up 50, up16 16.5.

2013 up50 69° 44' 40"W, 48° 05' 03"W

60cm to sleeve / inches

up50 (2016)
69° 44' 36" N
48° 05' 37" W
1615 m



16.5 Snow survey

10m tower:

142 } ice surface
144 } 136
138 }
80 ?
70 ?
refrozen { 80 ?
from { 75 ? (48 cm ice layer?)
layer }

Distance to Box 64 cm
" " lower arm 166 cm
" to lower radiom 68
" " upper " " 104

16.5.

Snowpit next to 10 m tower
95 cm snow to white aufis
(refrozen snow?)
ice layers @ 25 cm from bottom
30 cm
48 cm

Snow + refrozen from 135 - 140 cm

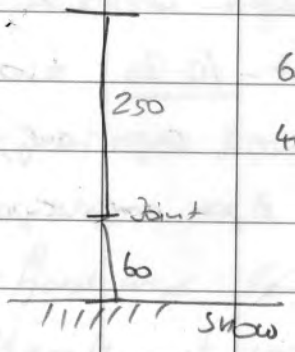
16.5 Snow survey SC AWS

60 cm
55 cm
118 cm } at/below sensors
122 cm } facing camp
117 cm } " away from
125 cm } camp
119 cm
119 cm

110 cm side box
107 cm on lower arm

UP 50 17.5

drive to up 50 km GPS site,
extended pole, which is now
250 + 60 cm above snow



added to google sheet

69° 44' 36" N
48° 09' 37" W
1615 m

The solar panels blocked by snow, only box and antenna was out of snow. Recording did not last very long for previous year.

→ batteries at 5.6 V and solar panel darling, hope it will start again when batteries are charged.

18-19 May Sebastian + Ravi leaving

Both are leaving to CPH today

AWS Traverse South 18.5.16

Preparation

S-Dome no extension
take battery box along
logging - all is - 6985

NEED TO TAKE A ladder!

Saddle: no extension needed
transmit ok, data is off!

NASA-SE: needs extension
no transmit
needs solar panel

Dye-II: no extension needed
(unit) xmit ok,
pressure not working

19.5.2016 Sondy - South Dome

Weather prediction is good and we do this flight first.

Left at 10:15 from Sondy

Transmitter: 37.4 dBm Forward power
14.3 dBm Reflected Power

Readjusted antenna to 213°, it was 310° (therefore not transmitting)

Moved the mast and head a mow wind dir sensor by 10° only.

added to google sheet

63° 08'.939' N
44° 49.030' W

→ I love you!! I love you too!

AK worked well, show pit density done by Martin + Nena.

Dye-2 19.5.16

We hope to come on the way back from S-Dome at Dye-2. Since the weather with clouds along the west coast tomorrow.

X-mit is working, but pressure seems out.

Wind Speed 2 is out → wind wheel missing → repair or needed to replace the front of the "plane".

Pressure sens ok!

SD1 out since last visit!

We replaced the instrument but did not work. → only cable or program could be the error.

Humidity 2 is out, but not repaired.

20.5.2016 Saddle

Left at 8:30 am for Saddle, then NASA-SE. Front mainly in from West.

Tc_gir 1 too high - change - check with!

Wind 1 not working correctly

SD 1 ant

SD 2 might be ant

65° 59' 59.6" N added to google sheet

044' 30' 09.2" W 245 m

Exchanged Tc 2 (upper) which works now

Repaired both SD 1, 2, ok now

Replaced wind, last Vspeed was ca and off. Dir ok.

Rest is working.

NASA-SE 20.5.16

Wind speed 2 seems to be low

all the rest seems working, but there was no transmit ⇒ antenna?

Snow 1 noisy ✓

Snow 2 out ✓

66° 28' 41.6" N 2382 m

42° 25' .435 W added to google sheet

- Extended tower – no problems
- Wind speed was out – received.
- Replaced sound SD 1
- Reset X-mit, azimuth 213 was correct.

Marking + Vane snow mast.

20.5.16 Northern Traverse - Prep.

Summit: • needs extension
- pressure not working
- needs 2nd solar panel

EGRIP: • needs extension (move station?)

NASA-E: • no xmit

NASA-U • needs extension
xmit ok ✓

NEEM: • needs extension

GITS • needs extension
needs arm; new SD

• Humboldt ⇒ battery box

• Potsdam ⇒ new battery box
⇒ rotating??

Total extension: 5 Large + 5 Struts ✓
- Solar panel ✓
- 1 arm ✓
- solar panel ✓

20.5.16

21.5.2016 Song - Summit

Flight around noon to summit, where we will stay two nights.

Things to do at summit:

AWS - extension
- add 2nd solar panel

BSRN - extend both towers

Radar - check and update

50m tower - raise box and levels

Solar trackr: Connect with PC

22/23.5

10 m tower

wind 1	93 cm
wind 2	99 cm above wind 1
sonic	1.61 m
temperature 1	93 cm
temperature 2	97 cm above temp 1
box	1.53 m above snow

22/5 Radiation tower 2

NOAA arm 180 cm upper end
SW in plate 188 cm (plate)
SW reflect 170 cm (plate)
SW reflect } 168 cm (plate)
SL outgoing } (on long arm)

Radiation tower 1 (solar tracker) 22.5

radiation plate 173 cm

lower end box 78 cm ✓

needs extension of cables — see pic

22.5.2016 Summit AWS + BSRN

Extended AWS tower and replaced pressure sensor and added 2nd solar panel (X)

address CS106 sensor, multiplicator should be -24, not -184

Extended both BSRN towers with extension from ETH. The solar tracker tower needs two cables before the rest extension, both data cables to the other radiation tower. Send email to Karl.

New level heights are given on previous page.

Summit 50m tower 22.5

Moved data logger box at 1.9 m above the snow, and all the lower 3 arms to 100, 200 cm, 3 level not measured but moved as to an higher.

The snow thermistor cable needs an extension, did not connect to save to short now. Send Karl email and pictures.

23.5.21 Comm. 7 - NASA-E

Again a very calm day at Summit
did some small talks in the morning
(added solar panel, measured height)
Neija + Lino did snow density measurements.

no extension needed, but no xmit?

NASA-E

added to google sheet

75° 00.11.8 all worked except U1,
29° 59°.126 could not read.
Antenna were off by 165°, turned to
223° Az, and Vertical was at 0°, now
at 7°. Transmitted test data and
seems to work!

Fuel Cash @ UEEL 23.5.

Fuel cash in drums @ UEEL:
7 drums for Steffen
3 drums for GLISN

Please mark mt's clearly for
piking up after use.

23.5 NASA-U to NGRIB

Left. NASA-U at 6:30 pm.
weather still very good!

Plan:

24.5 EGRIB - NASA-U
+ EGRIB extension

25.5 EGRIB - UEF - GITS - Qaanaaq

26.5 Q - Pedersen - Humboldt - Q.

27.5 Day off

28.5 Q - GF2.

EGRIP 24.5.16

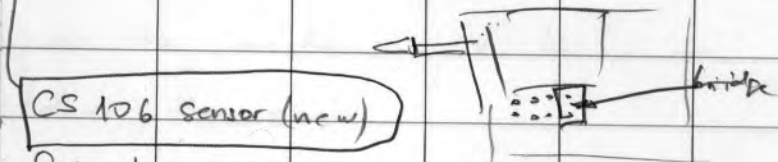
Arrived yesterday 7:30pm, clear and calm weather, food dinner and discussion.

Can we come back to EGRIB from Qaanaaq on the way South to pick-up the data. The detour would be 2 hours!

Preparing for NASA-U - will extend today, accumulation ~ 0.8m

transmitted data: 2016 (battery dep)

- SD-1 needs replacement
- Pressure is questionable → replace!
all other sensors ok



Set to normal mode, jumper must bridge (CSDT option is 1)
set pressure option to 0 in program!

24.5.16 Pressure Sensors EGRIP changed

CS 105: flag = 1

VoltDiff (pressure, 1, mV2500, 4, 1, 0, -60Hz, .184, 200)

CS 106: flag = 0

VoltDiff (press, ... -60Hz, .24, 200)

Program needs to be adjusted!

NASA-U 24.5.16

73°50'.27"W 2337

49°31' 23,5W

added to google sheet

Replaced pressure CS 105 with CS 106

→ needs new coefficient .24 instead of .184

→ data needs to be processed!

→ one source was intermittent (appears one / first we could not reach the sensor).

Snow accumulation was only ~ 0.6m, we did not extend the towers. Next year the sonic will be just below the snow.

Snow density meas. by Lino & Helge

24.5.16 EGRIP

Will move AWS closes to camp, now it is 4km from Dome.

Will dig out the batty box and pull it out with crane.

25.5 NEEM - GITS - Q. on schedule

26.5 Q - Petersen - Humboldt

27.5 Rest day

28.5 Q - Sondy

EGRIP 24.5.16

old: 75° 35' 37.7 N

35° 59' 19.1 W 2693

added to google sheet

Station moved to camp, beside the snow compaction site from the east the GEUS AWS.

No new coordinates taken. All working done the move with the bulldozer. Had to shovel a 2m hole to set the new site of EGRIP.

Left EGRIP next morning at 8am to NEEM, minding the station duties

25.5.16 NEEM #23

Wind2 is out (0)

Pressure is 999 ? -6999 - pressure is out!

77° 26 28.2 N 2453

51° 04 57 W

added to google sheet

Extended in record time, 1h.?

All working except pressure. Checked cables but not over, had no spare pressure sensor left.

Extended power cable, +1 extension

Density probe

GITS 25.5.16

Needs 2nd SD instrument - no it worked

Downloaded Memory dump, but looks like binary data. Downloaded directly from device and it worked.

Extended tower, and power cable.

All channels working.

We did both extensions in 2 hours esd which is a new record.

Flying to Qaanaq now, my favorite place in Greenland!

25.5. Qaanaaq clear day

Arrived early afternoon, Hans was already waiting for us in the airport. We went by late afternoon to town for a hike and on the sea ice.

After dinner hike along the coast towards airport with view on Herbert + Northumberland Isles.

Humboldt. 26.5.16

/ 6 Dec

Stopped xmit JD 340, battery was 9V -> needs new battery!

Put battery here!

Petermann

11.30 (JD 334)

Also low on battery, NOV stopped xmit

V = 9.5 Volts. Tcair1,2 = out, U2 = out

no spare battery left.

Table 46

Log-id, Year, JD, hour, swin, swout, net
tc air 1,2, tair 1,2, rh1,2, U1,2

Table 48

Log-id, V-dir 1,2, press, SD1,2, ... batt.

26.5.2016 Petermann

Replaced two snow heights

Replaced battery box

80° 05' 49.5" N 58° 08' 18.1" W

944 m

added to google sheet

Downloaded Mamoy drive, again data in binary format, need to convert.

Downloaded by attaching PC to CAMMS.

All other datasets worth 1-2 years until new drilling needed.

Need try to reach Humboldt again, we had low clouds on our way here.

Humboldt 26.5.

Could not land, were very close and circled for the station, but no contrast under the clouds and after two approaches had to pull up.

Back to Qaanaaq, may be Humboldt on the way to Sondy if the clouds are lifting.

Last night at Qaanaaq, then end of field season and flight back to Sondy.

27.5 Qaanaaq - Humboldt

Left Q. around 10am and will try Humboldt again before going South. This will be our return flight to Sondy and the end of a good field season.

Humboldt first AWS station: 1989m
78° 31' 40.7"N, 56° 50' 29.5"W
Landed and downloaded data.
Memory chip had only data until Dec 17 when transmission stopped. There was a table header error (date) and I had to reset the tables on CR1000, so could not download the rest from Dec to May. All channels were working (on battery only)

added to google sheet

Humboldt - Upernavik 27.5.16

The ice story: Five ice at Summit without any instructions - we left them at EGRIP.

Upernavik - Core 7 492km
Core 7 - Sondy 443
935km

We went to Core 7 each at 70° 18' 10.21"N, 44° 34' 0.18W 2600m to drop 1 gallon ice for Steadoos. This location was 492 km from Upernavik, a detour of 1 hour when compared to Upernavik - Sondy. This should be charged to the Osterberg group.

I paid for the ice 475 kr. from my pocket. → beer.

7.7.16 UP 18

69° 39' 55" N, 48° 59' 49" W

Calculated by Jay for June 2016

Dead glacier

69° 19' 51" N, 50° 20' 28" W

JAV Glacier view

69° 7' 24.6" N, 49° 38' 20" W

Hoolin 1

69° 33' 12.6" N, 49° 54' 21" W

Hoolin 2

69° 33' 15.3" N, 49° 54' 7" W

CPH - Ilulissat 9.7.2016

With Bianca from CPH to JAV to meet with Mr Lee at Swiss Camp.

Heaven's Gate Michael's Criminas 1980 Johnson County Montana

Locations during GE Eric's visit 12 July 2016

Hoolin 69° 33' 17.4" 49° 54' 06.8" W

added to google sheet

UP 18 69° 39' 53.6" N, 48° 59' 50.6" W

from Jay 69° 39' 55.1 N, 48° 59' 45.4 W

AWS preparation 2017

CP1 needs extension, not xmit
→ need an extended UART
→ Battery not sufficient 4 months missing
in middle of winter, new Batteries

Dye-II maybe needs extension, yes
Battery went to 11.8 V, but worked on
Water

EGRIP no extension needed
met radiometer, short wave refl.
Snowheight was out in 2016

GITS ✓ data got in Feb for 2 month!
was extended in 2016
Transmission ok!
wind @ not connected or out?
sonic ① + ② are out, battery 12V!

Shack ① AWS - Pet retrofitting!
→ in red container boxes

Extensions: CP1 Dye-2 JAR1, NASA-U
④ → 6 spares in longer!

Battery box: CP → 2 boxes in longer
hum

Hum: extended in 2015, boxes ok.
⇒ Needs new battery ✓ Lets check
the transmission is ok ✓
on channel 06 with 20 235

JAR1: Extension needs to be rechecked

NASA E: no extension needed
recordings work well, xmit ??

NASA-SE: extended in 2016
works well

AWS for 2017

NASA-U: Extension needed!
works well

NEEM: extended in 2016
works well

Pet: no extension needed, maybe redrilling! Has new battery box
transmission ok, but battery gets low/new
⇒ Solar power & Speed due to power
Tc air both out

Saddle: Should be ok for 1 more year!
rest ok,

S-Dome: extension needed
rest ok

Summit: extended in 2016
rest ok

Swiss C: no extension needed

Tunu-N: transmission good
no extension needed
battery ok, wind dir (2) out
Sonic (2) intermittent

Order spare parts for AWS

Eric Rignot's station (79°N)?

Extensions (5) CP1, Dye II, JAR1, NASA-U (Saddle)

Batteries (2) CP1, (Tunu)

Redrilling (1) Pet,

1.12.2016 Antarctica

PE_air ok, power ok

PE_blue ok, " "

PE_green ended DD 225, needs battery

PE_air frequ ok, Wind dir 1,2 not equal!

SDmin 1,2 not working?

PE_blue Source 2 out, all the rest ok

PE_green until 225, then power out

not read not connected or missing

Source (2) out, battery 9V, dropped

79N AWS 50k 1.12.16

AWS 3 (Cu) 78.96443 N, -22,636678W

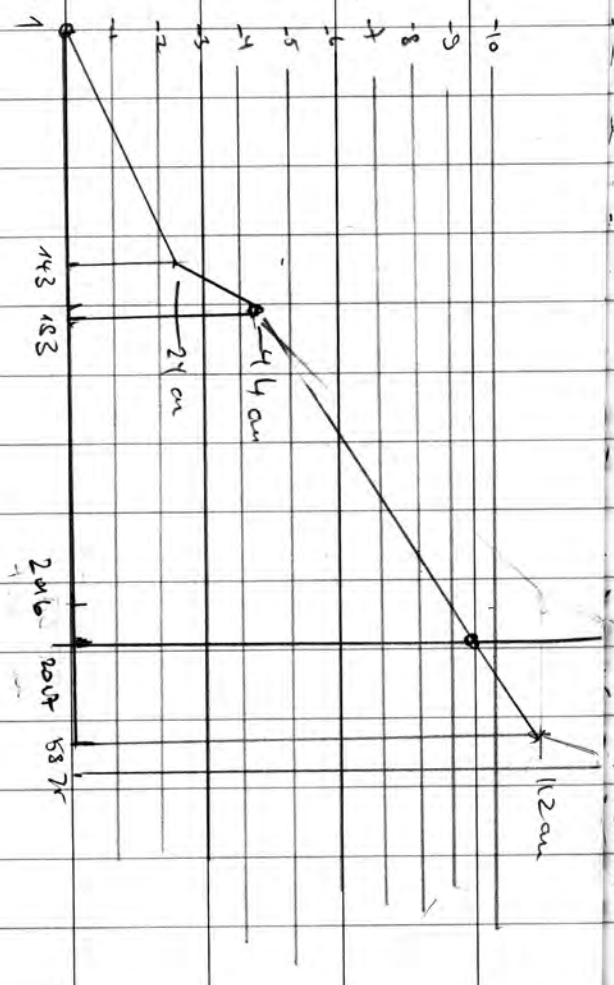
78° 57' 52" - 22° 38' 12" W

altitude 566 m

276 km NFE from Thule-N !

278 km from EGRIP to Thule N

550 km EGRIP to AWS 3 Cu



		2016	Sour	AWS
	Summit	AWS	2016, Sour	
JP	11	143	144	183	58/17
# 1	165	141	4.51	4.34	
		24cm	17cm	74	19

1 to 183 JD : 41 cm snow

	2017	
JD	158	77
	360	379
	74 cm	19 cm

Locations 2016

Sc	69° 33' 24.899" N	49° 21' 34.572" W	1163m	Trimble Geo xT
Sc	69° 33' 25.1" N	49° 21' 34.2" W	1144m	Garmin (new)
CP1	69° 52' 27.7" N,	47° 01' 27.9" W	1145m	
DN10	69° 30' 04" N,	49° 33' 34" W	1005	
DM1	69° 29' 37" N,	49° 42' 41" W	898m	
NEEM	77° 26' 28.2 N,	51° 04' 57" W	2453	
EGRIP	75° 35' 37.9" N,	35° 59' 19.1 N	2693 OLD	
NASA-U	73° 50' 27" N,	added to google sheet 49° 31' 23.5" W	2333	
NASA-E	75° 00. 11.8" N	25° 59'. 12 W		
NASA-SE	66° 28' 41.6" N,	42° 29' 43.5 W	2382	
Saddle	65° 59' 59.6" N,	44° 30' 09.2" W	2451	
C-Dome	63° 08'. 935 N,	44' 49.030" W		
GP50	69° 44' 36" N,	48° 09' 37" W	1615m	
Pet	80° 05' 49.5" N,	58° 08' 18.1" W	944	
Hum	78° 31 40.7" N,	56° 50' 29.5" W	1989m	
GP18	69° 39' 53.6" N,	48° 59' 50.6" W		