

ICECAPS-ACE Weekly Report

January 11th – January 17th, 2021

Heather Guy



We enjoyed some beautiful clear night skies and aurora shows this week, 2021-01-16.

Photo: Heather Guy

General Notes:

Much to our surprise we enjoyed our warmest ICESat traverse of the season this week in a balmy -25C. We also saw some beautiful clear night skies and aurora shows. Our workload is slowly ramping up in preparation for turnover, which is currently expected to take place 14th-22nd February. The laser diode in the SKYOPC failed this week, and we are planning to return the instrument to the manufacturer in February for repair and re-calibration. I have also been preparing the INP cold stages for retro back to Leeds, and raising and repairing cable runs around the MSF.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
01-11	12	13 kts at 196	-SN, FZFG	500	OVC010	-28	
01-12	12	13 kts at 151	FZFG, DRSN	500	VV007	-26	
01-13	12	20 kts at 151	BLSN	500	VV037	-22	
01-14	12	15 kts at 122	DRSN	1500	BKN058	-25	SN pm.
01-15	12	12 kts at 185	BR	1500	SCT098	-38	
01-16	12	8 kts at 166		9999	FEW	-37	
01-17	12	15 kts at 103	-SN,DRSN	500	OVC037	-31	

Significant Weather Observations:

- 2021-01-11 1200Z: Rave ice.

MSF

- Operating normally

ICECAPS-ACE Data Management:

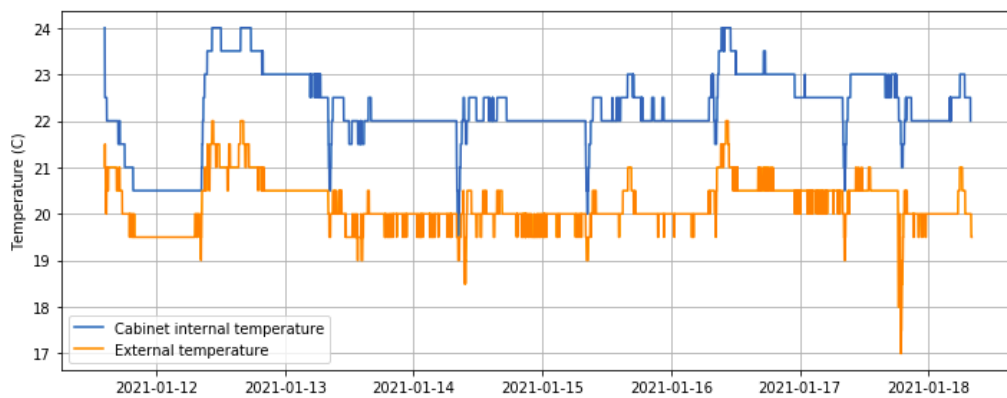
- 01-11: Data transfer completed at 0436Z.
- 01-12: Data transfer completed at 0443Z.
- 01-13: Data transfer completed at 0439Z.
- 01-14: Data transfer completed at 0437Z.
- 01-15: Data transfer completed at 0451Z.
- 01-16: Data transfer completed at 0446Z.
- 01-17: Data transfer completed at 0443Z.

TSI:

- Offline for the winter season.

Radiosonde:

- Once daily launches.
- See chart below for radiosonde cabinet temperatures over the last week.



MWR:

- RPG-150-90 operating normally.
- HATPro troubleshooting: Awaiting final confirmation from Erik that I can start putting the HATPro back together for storage on the winter berm (ultimately for retro in the summer).

SODAR:

- 2021-01-11 1323-1353Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

POSS:

- Operating normally.

MASC:

- Offline for winter season.

MMCR:

- Operating normally.

CAPABL:

- 2021-01-14 1554Z: Full instrument reboot after found with low Licel voltage.
- 2021-01-15 1254Z: Full instrument reboot after found computer with 'Disk boot error' screen. Computer rebooted OK and external back-up hard drive appears healthy too.
- Operating normally.

MPL:

- No change to MSF window condition.
- 2021-01-15 1315Z: Performed monthly afterpulse calibration.
- Operating normally.

CEILOMETER:

- Operating normally.

PAERI:

- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- 2021-01-11 1220Z: Hexagonal and trigonal plates, needles, bullets and columns. 28 photos.
- 2021-01-14 1634Z: Bullets, bullet rosettes, columns and irregulars. 36 photos.

CPC:

- Offsite for repairs.

MSF - OPC:

- Operating normally.

TAWO - OPC:

- Operating normally

SKYOPC:

- 2021-01-11: Brought inlet inside to defrost while repairing failed pump.
- 2021-01-12: Reinstalled inlet and repaired pump. Instrument reporting error code '192'.
- 2021-01-13: After communication with the manufacturer, we determined that the laser diode has failed, and the instrument must be returned for repair and re-calibration.
- Offline, due to be sent out in February for repair.

Fluxtower instrument suite:

- Operating normally.

Radiometers:

- Solar tracker misalignment persists, otherwise operating normally.