

ICECAPS-ACE Weekly Report

September 28th – October 4th, 2020

Heather Guy



Colorful aurorae above the SMG on 2020-09-27

Photo: Heather Guy

General Notes:

We saw in October with a relatively quiet week science-wise, but plenty of drifting and blowing snow to keep us busy. This week I drained, dismantled and packed the remaining INP equipment in the MSF. I also replaced the air filter on the radiosonde base station enclosure and helped Jasper with continued (but unfortunately unsuccessful) troubleshooting of the solar tracker alignment.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
09-28	12	12 kts at 064	FZFG	1000	VV001	-39	Double fog bow
09-29	12	15 kts at 072	DRSN FZFG	800	VV016	-32	
09-30	12	16 kts at 111	BLSN	800	FEW	-34	
10-01	12	19 kts at 113	BLSN	800	VV025	-26	High winds & drifting overnight
10-02	12	13 kts at 146	SN	3200	OVC025	-20	SN and cloud clears ~1230z
10-03	12	8 kts at 166	BR	1600	FEW	-38	SN pm.
10-04	12	16 kts at 113	BLSN	1600	SCT	-23	

Significant Weather Observations:

- 2020-09-28 1030-1300Z: Double fog bow
- 2020-09-29 0930-1045Z: Parahelia
- 2020-09-29 1045-2000Z: 22 degree halo
- 2020-09-30 1045-1700Z: lower half of halo associated with BLSN.
- 2020-10-01 0930-1200Z: Parahelia and upper tangent arc.
- 2020-10-03 1030-1200Z: fog bow
- 2020-10-04 1130-1245Z: Parahelia
- Note: Sig Wx photos are not being transferred to Boulder.

MSF

- Operating normally

ICECAPS-ACE Data Management:

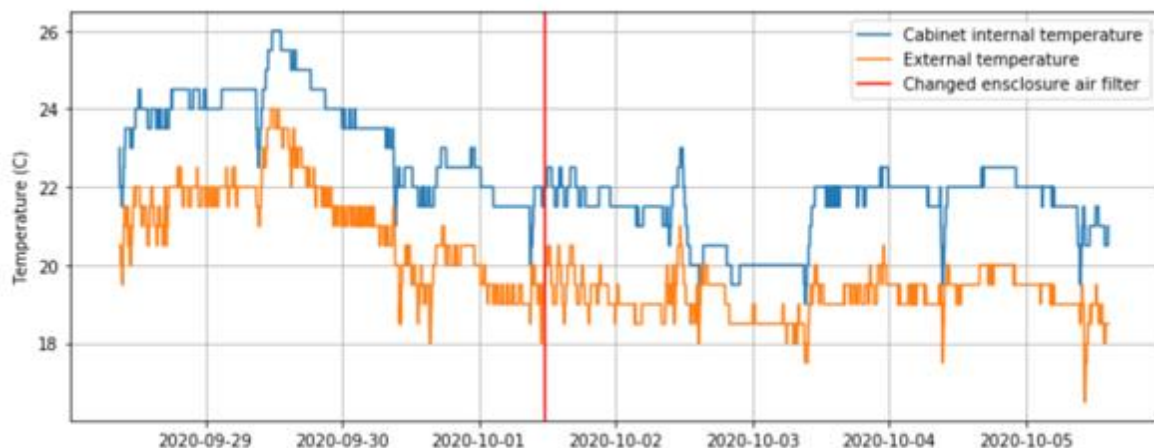
- 09-28: Data transfer completed at 0439Z.
- 09-29: Data transfer completed at 0446Z.
- 09-30: Data transfer completed at 0440Z.
- 10-01: Data transfer completed at 0440Z.
- 10-02: Data transfer completed at 0442Z.
- 10-03: Data transfer completed at 0437Z.
- 10-04: Data transfer completed at 0434Z.
- Note: df command still slow.

TSI:

- Offline for the winter season.

Radiosonde:

- 2020-10-01 1130Z: Enclosure air filter replaced.
- 2020-10-01: Premature sounding termination (6,861 magl), reason for termination: 'Weak or failing signal'.
- Once daily launches.
- See chart below for temperatures inside and outside the radiosonde cabinet over the last week:



MWR:

- 2020-09-30 1216Z: Cleared error 'Slave elevation mirror does not respond'
- Operating normally

SODAR:

- 2020-09-28 1308-1324Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

POSS:

- Operating normally.

MASC:

- Offline for winter season.

MMCR:

- Operating normally.

CAPABL:

- Note: CAPABL computer time is consistently 5-10 s different to GPS time despite daily re-synching.
- Operating normally.

MPL:

- Operating normally.

CEILOMETER:

- Operating normally.

PAERI:

- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- No IcePICS this week ☹

CPC:

- Offsite for repairs.

MSF - OPC:

- 2020-10-02 1230Z: Offline to defrost after suspiciously low counts.
- 2020-10-03 1724Z: Back online after cleaning and drying. No data improvement.

TAWO - OPC:

- Operating normally.

SKYOPC:

- Operating normally.

Fluxtower instrument suite:

- Operating normally

Radiometers:

- Solar tracker misalignment troubleshooting ongoing, otherwise operating normally.