

ICECAPS-ACE Weekly Report

October 5th – October 11th, 2020

Heather Guy



Heavy frost build up on the SKYOPC inlet during a thick freezing fog event on 2020-10-09.

Photo: Heather Guy

General Notes:

We had some high winds at the beginning of this week, followed by three days of thick freezing fog resulting in several inches of frost accumulation on the MSF roof and instruments. Aside from drift and frost maintenance, I ran the spare signal cable for the MWR up to the roof and replaced the desiccant in the MMCR. I also ran an intercomparison between the SKYOPC and all three Alphasense-OPC instruments inside the MSF on 2020-10-10. No ICECAPS data was sent to Boulder on the 10th or 11th of October, it looks like the issue might be on the U.S. side, I'm awaiting further troubleshooting instructions.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
10-05	12	14 kts at 138	BR BLSN	1000	FEW065, FEW196	-24	Parahelia, Kelvin-Helmholtz wave clouds.
10-06	12	15 kts at 094	SN	1600	OVC024	-18	BLSN overnight
10-07	12	20 kts at 128	BLSN	1600	BKN019	-15	Max wind in am. 41 knots.
10-08	12	6 kts at 162	FZFG	100	VV001	-20	FZFG all day
10-09	12	7 kts at 162	BR	1600	VV002	-24	FZFG all day
10-10	12	12 kts at 198	FZFG	500	SKC	-32	
10-11	12	14 kts at 119	SN	1000	OVC009	-19	

Significant Weather Observations:

- 2020-10-05 0945Z: Parahelia
- 2020-10-07 1030-1045Z: Parahelia.
- 2020-10-08 1600-1800Z: Fog bow
- 2020-10-08 1830z: Double ringed glory.
- 2020-10-09 1600-1800Z: Fog bow
- 2020-10-11 1700-1900Z: Parahelia and IC.
- Note: Sig Wx photos are not being transferred to Boulder.

MSF

- Operating normally

ICECAPS-ACE Data Management:

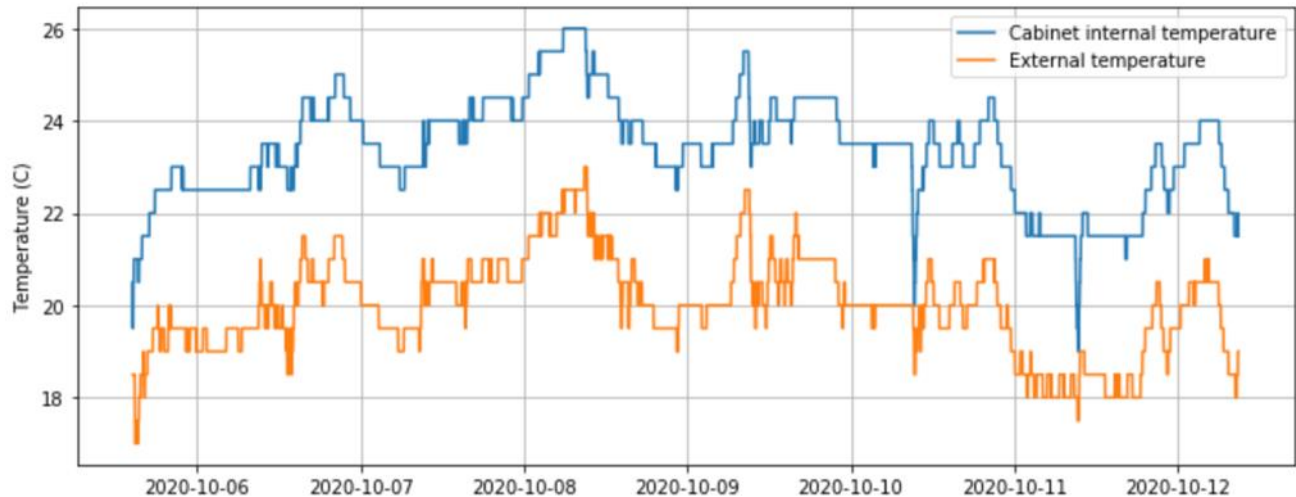
- 10-05: Data transfer completed at 0441Z.
- 10-06: Data transfer completed at 0439Z.
- 10-07: Data transfer completed at 0453Z.
- 10-08: Data transfer completed at 0438Z.
- 10-09: Data transfer completed at 0436Z.
- 10-10: No data sent to Boulder: Target destination not found.
- 10-11: No data sent to Boulder: Target destination not found.

TSI:

- Offline for the winter season.

Radiosonde:

- Once daily launches.
- 2020-10-10: Surface RH stuck at 104% in FZFG. Recovered shortly after launch.
- See chart below for temperatures inside and outside the radiosonde cabinet over the last week:



MWR:

- 2020-10-08: Ran spare signal cable up to MSF roof.
- Operating normally

SODAR:

- 2020-10-05 1237-1251Z: Cleaned and leveled the SODAR dishes.
- 2020-10-09 1432-1446Z: Cleaned and levelled SODAR dishes.
- Note: Black deposit from foam sound proofing observed in and around the SODAR.
- Operating normally.

POSS:

- Operating normally.

MASC:

- Offline for winter season.

MMCR:

- 2020-10-09: Replaced desiccant.
- Operating normally.

CAPABL:

- 2020-10-10: Scattered ice crystals on CAPABL window.
- 2020-10-11: Scattered ice crystals on CAPABL window.
- Operating normally.

MPL:

- Note: Data mount at 93% capacity.
- Operating normally.

CEILOMETER:

- 2020-10-07: Set up auto-time sync every hour.
- Operating normally.

PAERI:

- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- 2020-10-06 1143Z: Bullets, hexagonal and stellar plates. 26 photos collected.
- 2020-10-11 1330Z: Bullets, bullet rosettes, columns and irregulars. 44 photos collected.

CPC:

- Offsite for repairs.

MSF - OPC:

- 2020-10-05 1135Z: Offline for troubleshooting.

TAWO - OPC:

- 2020-10-09: Offline for OPC intercomparison.

SKYOPC:

- 2020-10-09 1709: Offline for OPC intercomparison.
- 2020-10-11 1448: SKYOPC back online.
- Operating normally.

Fluxtower instrument suite:

- Operating normally

Radiometers:

- Solar tracker misalignment troubleshooting ongoing, otherwise operating normally.