

# ICECAPS-ACE Weekly Report

September 14<sup>th</sup> – September 20<sup>th</sup>, 2020

Heather Guy



*Mixed clouds create nice lighting above the MSF, 2020-09-17  
Photo: Heather Guy*

## General Notes:

We completed our first ICESat traverse of the season this week, we also saw our first auroras. I installed a cooling fan on the SKYOPC pump box which is keeping the pump in the MSF significantly cooler. I also mounted the new external power supply in the radiosonde base station enclosure, once the grounding details are finalized, we can switch the SPS power to the new supply. The MASC was powered down this week for the winter after an error with the FireWire bus.

## General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
09-14	12	12 kts at 169	BR	3600	SKC	-40	
09-15	12	13 kts at 178		4800	FEW	-39	360 degree stratus on horizon. Cloud moved in ~1430Z. BLSN overnight.
09-16	12	21 kts at 192	BLSN	800	BKN044	-17	
09-17	12	9 kts at 249	-SN	4800	BKN016	-24	Thin stratus cleared by 1244Z.
09-18	12	17 kts at 139	BR	4800	VV004	-24	
09-19	12	3 kts at 194	-SN	4800	OVC047	-23	
09-20	12	12 kts at 041		4800	SCT131	-39	

### Significant Weather Observations:

- 2020-09-14 1430-1700Z: Fog bow
- 2020-09-17 1900-2100Z: Fog bow.
- 2020-09-18 0930-1245Z: Fog bow.
- 2020-09-18 1250-1315Z: Halo, parahelia, upper tangent arc & circumzenithal arc associated with blowing snow.

### MSF

- Operating normally

### ICECAPS-ACE Data Management:

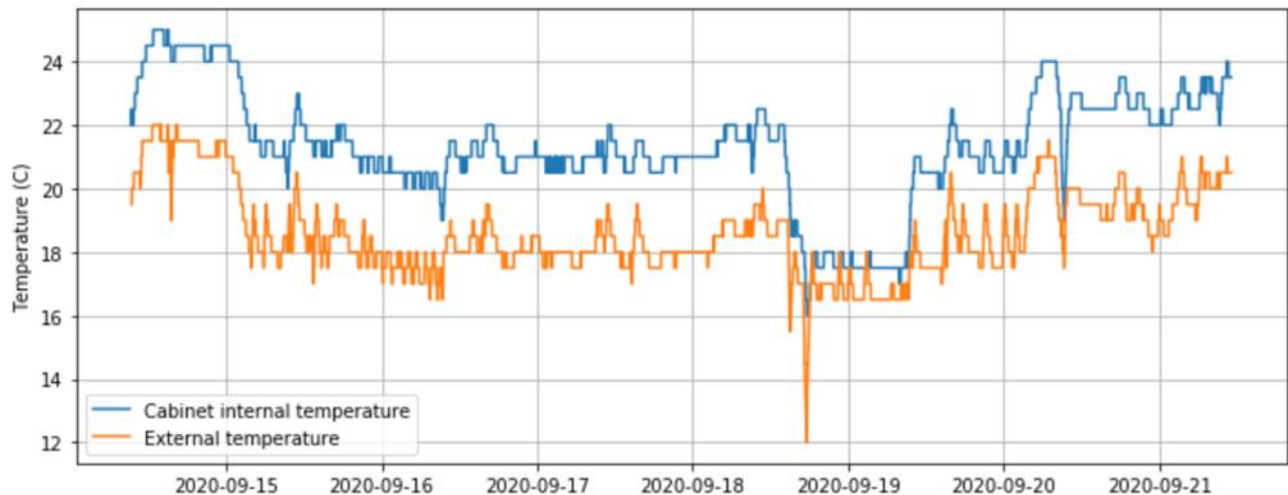
- 09-14: Data transfer completed at 0447Z.
- 09-15: Data transfer completed at 0444Z.
- 09-16: Data transfer completed at 0458Z.
- 09-17: Data transfer completed at 0446Z.
- 09-18: Data transfer completed at 0504Z.
- 09-19: Data transfer completed at 0431Z.
- 09-20: Data transfer completed at 0443Z.

### TSI:

- 2020-09-15 1049Z: TSI image green??
- Operating normally

### Radiosonde:

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



**MWR:**

- Operating normally

**SODAR:**

- 2020-09-15 1854-1909Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

**POSS:**

- Operating normally.

**MASC:**

- 2020-09-15 1212Z: Reboot MASC computer due to frozen trackpad.
- 2020-09-16 1245Z: MASC found with multiple errors. Unable to restart data collection.
- 2020-09-17 1317Z: MASC powered down for the winter season at PI request.

**MMCR:**

- 2020-09-17 1330Z: MMCR found with DMA hardware error, daily cal check skipped, outdoor temperature showing an unrealistic value. I re-adjusted the cable tie to the sensitive monitor cable, and all returned to normal.
- Operating normally.

**CAPABL:**

- Operating normally.

**MPL:**

- 2020-09-15 1637-1701Z: Monthly MPL after-pulse calibration.
- Operating normally.

**CEILOMETER:**

- Operating normally.

**PAERI:**

- Operating normally.

**IceCAM:**

- Operating normally.

**IcePIC:**

- 2020-09-19 1215-1240Z: Irregulars and trigonal plates, 19 photos collected.

**CPC:**

- Offsite for repairs.

**MSF - OPC:**

- Operating normally

**TAWO - OPC:**

- Operating normally.

**SKYOPC:**

- 2020-09-16 1200-1408Z: Powered down SKYOPC pump during cooling fan installation.
- Operating normally.

**Fluxtower instrument suite:**

- Operating normally

**Radiometers:**

- Solar tracker misalignment troubleshooting ongoing, otherwise operating normally.