

# ICECAPS-ACE Weekly Report

August 26 – September 01, 2019

Heather Guy



*Atmospheric optics above the MSF during a blowing snow event, 2019-08-29*

## General Notes:

This week has been characterised by strong winds from the North bringing plenty of drifting and blowing snow, atmospheric optics and some warmer temperatures. The North winds have restricted vehicle operations around station, limiting drift clearing and clean air science ops. Dataman functionality was restored on 08-29, with a new, software-based, RAID archiving system. The backlog of ICECAPS data has been transferred to Boulder and data transfer and archiving is now back on a normal schedule.



*High winds this week made radiosonde launches more exciting, 2019-08-30*

**General Weather Observations:**

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp	Notes
8-26	12	087°, 5 kn	FZFG	3200	FEW	-26	North winds
8-27	12	051°, 11 kn	FZFG (distant)	9999	FEW	-26	North winds
8-28	12	356°, 8 kn		4800	OVC039	-16	North winds
8-29	12	355°, 19 kn	BLSN	1000	OVC013	-17	North winds, drifting and blowing snow.
8-30	12	032°, 20 kn	BLSN	1000	BKN009	-13	North winds, blowing snow
8-31	12	031°, 12 kn	BLSN	1000	BKN038	-15	North winds, blowing snow
9-01	12	050°, 15 kn	-SN	1000	OVC032	-15	North winds.

**Significant Weather Observations:**

- 8-26 0900-1200z: Fog bow.
- 8-26 1620-2100z: Fog bow.
- 8-27 1330-1600z: Clear skies for checking CAPABL
- 8-29 0730-1100z: Sun dogs, and upper tangent arc.
- 8-31 0745-1000z: Sun dogs and upper tangent arc.
- 9-01 1900-2230z: Sun dogs and pillar.

**MSF**

- 8-30 1317z: MSF air temperature controller increased from 44F to 46F. This increased temperatures inside the MSF from 52-58F to 54-61F.

**ICECAPS-ACE Data Management:**

- 8-26: Computer reboot 1921z, no data transferring to Boulder.
- 8-27: Dataman troubleshooting ongoing, no data transferring to Boulder.
- 8-28: Dataman restarted with failed RAID card removed and two new back up hard-drives installed.
- 8-29: Backlog of ICECAPS data from 8-23 being transferred to Boulder.
- 8-30: Data transfer completed as normal, 0531z.
- 8-31: Data transfer completed at 0522z.
- 9-01: Data transfer completed at 0520z.

**MWR:**

- Operating normally.

**SODAR:**

- Operating normally.

**POSS:**

- 8-26 1921: POSS powered down for dataman reboot.
- 8-29 1155: POSS restarted.
- Operating normally.

**MMCR:**

- 8-31: 'Netcdf errors' successfully cleared.
- 9-01: MMCR did not complete calibration. Various errors noted and sent to Matt Shupe and Tom Ayers. No data recorded since 0900z.

**CAPABL:**

- Operating normally.

**MPL:**

- Operating normally

**VCEIL:**

- Operating normally.

**IceCAM:**

- Operating normally

**PAERI:**

- 8-29 0000z: Odd data at 00Z, the same situation was reported to Von two weeks ago. PAERI recovered itself.
- Operating normally

**TSI:**

- Operating normally

**IcePIC:**

- No ice pics this week.

**Radiosonde:**

- Twice daily launches.
- 8-30: Base station cabinet temperatures checked, internal temperatures have ranged between 21C and 35C over the last 10 days.

**MASC:**

- 8-27 1158z: MASC computer restarted due to frozen trackpad.
- 9-01: MASC directory re-mounted on dataman computer.
- Operating normally.

**MSF - OPC:**

- Operating normally.

**TAWO – OPC:**

- 8-29 1640z: TAWO OPC cable replaced.
- 8-31: TAWO OPC data spikes persist despite new location and new cable. Spikes occur in multiples of 22 minutes. Nothing else with this time period in TAWO has been identified. Troubleshooting ongoing.

**SKYOPC:**

- Operating normally.

**CLASP:**

- Operating normally.

**CPC:**

- 8-28: Butanol refilled.
- Operating normally.

**Fluxtower instrument suite:**

- 8-27 0947: Snow height sensor recorded 0 m for around 8 hours, then recovered itself. The reason for the data drop-out was not identified, but the sensor has been operating normally since.
- Operating normally.

**INP Freezing assay:**

- 8-27: Cold stage B auto-calibrated successfully.
- 8-27: Cold stage D auto-calibration failed – No control over cold stage temperature.
- 8-27 1820: INP filters exchanged.
- 8-28 1320-1700: INP freezing assay completed using two operational cold stages.
- 8-30: Cold stage E auto-calibrated successfully. Cold stage F auto-calibrated successfully.