

# ICECAPS-ACE Weekly Report

August 30<sup>th</sup> – September 5, 2022

Molly Peek



Gull-winged upper tangent arc, partial 22-degree halo, and sun pillar on the evening of 2022-09-04.

*Photo taken by: Molly Peek*

## General Notes:

This week at the Mobile Science Facility (MSF), work was focused on fixing bugs and instrument errors. The Millimeter Cloud Radar (MMCR) experienced issues with the MMCR-DM computer, and there was no MMCR data transfer after 2022-09-01. The Raspberry Pi also had issues processing data and troubleshooting continues. After some small operating issues on 2022-09-03, the Dataman computer is successfully working and processing data. Summit has experienced anomalously warm temperatures since 2022-09-03, with temperatures intermittently above 0 degrees Celsius throughout the day on 2022-09-03, and hovering closely below freezing since then. All regular instrument checks and the twice-daily radiosonde balloon launches continued successfully.

**General Weather Observations:**

Date	Time (Z)	Wind (kt)	Weather	Visibility	Sky	Temp (C)	Notes
2022-08-30	12:00	25	BLSN, DRSN, +SN	750	OVC	-5	
2022-08-31	12:00	12		1200	FEW	-12	
2022-09-01	12:00	5	FZFG	400	OVC	-18	
2022-09-02	12:00	11		9999	SCT	-14	
2022-09-03	12:00	17	FZFG	3000	BKN	-1	
2022-09-04	12:00	14		9999	BKN	-2	
2022-09-05	12:00	9		9999	BKN	-3	Unverified freezing rain in the night leading into 2022-09-06

**Significant Weather Observations:**

- Partial 44-degree halo; diamond dust 20220831:1106z
- Diamond dust 20220831:1200z
- Iridescence 20220831:1300z
- Fogbow 20220901:1900z
- Iridescence 20220902:0845z
- Partial rainbow 20220903:1127z
- Lower tangent arc 20220903:1240z
- Gull-winged upper tangent arc; partial 22-degree halo; sun pillar 20220904:2015z

**MSF**

- Operating normally

**ICECAPS-ACE Data Management:**

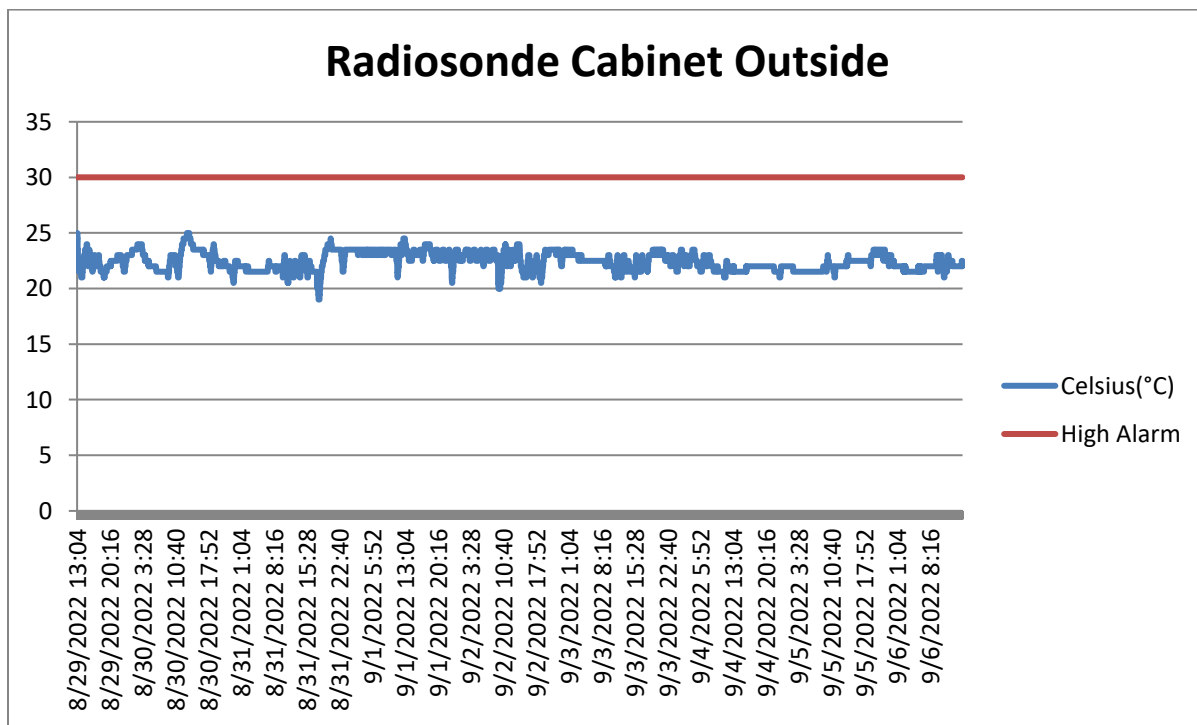
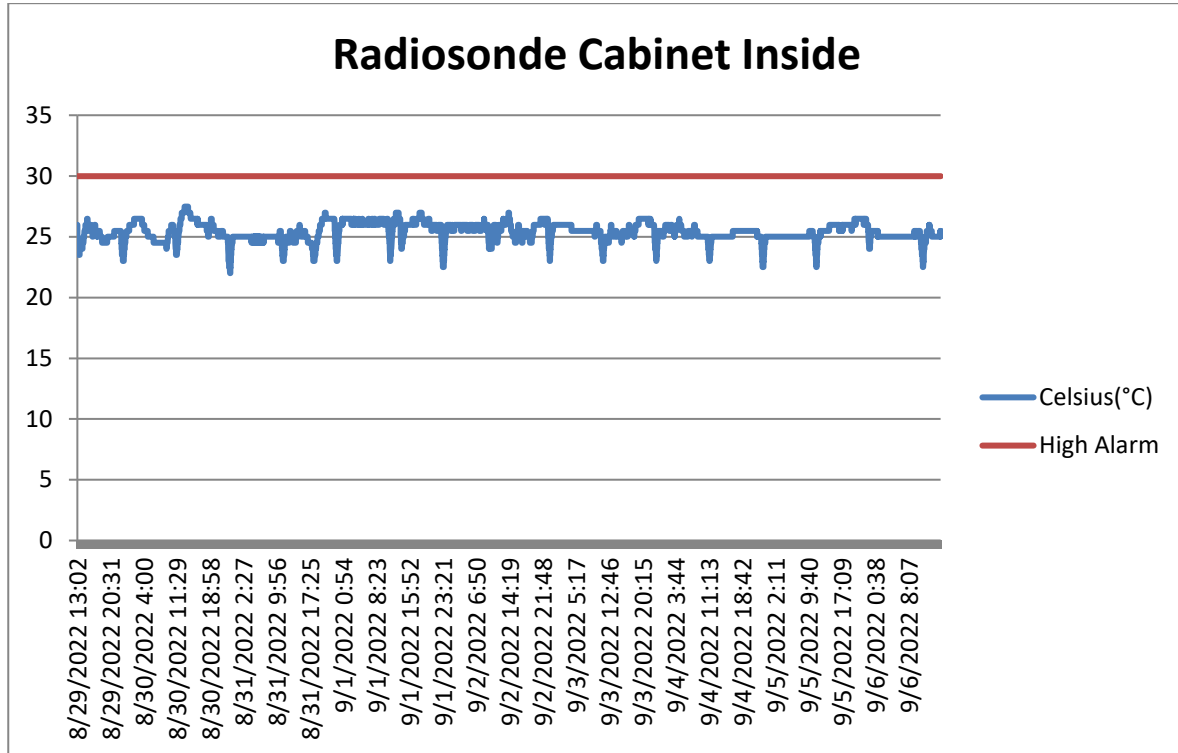
- Data transfer completed 2022-08-30:0400z
- Data transfer did not complete 2022-08-31
- Data transfer completed 2022-09-01:0447z
- Data transfer completed 2022-09-02:0419z
- Data transfer completed 2022-09-03:0558z
- Data transfer did not complete 2022-09-04
- Data transfer completed 2022-09-05:0427z
- Issue opening desktop folders and completing commands in the Terminal Emulator 20220903

**TSI:**

- Was partially iced during warm and cold weather fluctuations
- Operating normally

**Radiosonde:**

- Several Java script errors continue to pop up, does not appear to affect launch or data collection.
- Operating normally



**MWR:**

- Operating normally

**SODAR:**

- Amplifier turned off for cleaning 2022-09-05:1138z-1153z
- Operating normally

**POSS:**

- Regular transient noise errors
- Operating normally

**MASC:**

- Frayed power cord to MASC mount, notes have been made for repairs
- Operating normally

**MMCR:**

- MMCR-DM computer experiencing issues, the radar seems to be operating normally
- MMCR does not appear to be transferring data

**MPL:**

- Operating normally

**CEILOMETER:**

- Operating normally

**PAERI:**

- Expected to return in September

**IceCAM:**

- Operating normally.

**IcePIC:**

- Images taken 2022-09-04
- Camera issues affected photo quality 2022-08-31, resolved same day

**MAGIC CPC:**

- Operating normally

**MSF - OPC:**

- Raspberry Pi experiencing issues, Quicklooks pages are not accessible
- Operating normally

**AWO - OPC:**

- Offline

**SKYOPC:**

- Offline

**Biral PWS :**

- Bad self-check 2022-08-26 :2200z – 2022-08-27 :0200z
- Bad self-check 2022-08-29:0045-0115z and 0130-0200z
- Raspberry Pi experiencing issues, Quicklooks pages are not accessible
- Operating normally

**Flux Tower instrument suite:**

- Upgrades underway
- Operating normally

**Radiometers:**

- Upgrades underway, resulting in some down time
- Operating normally