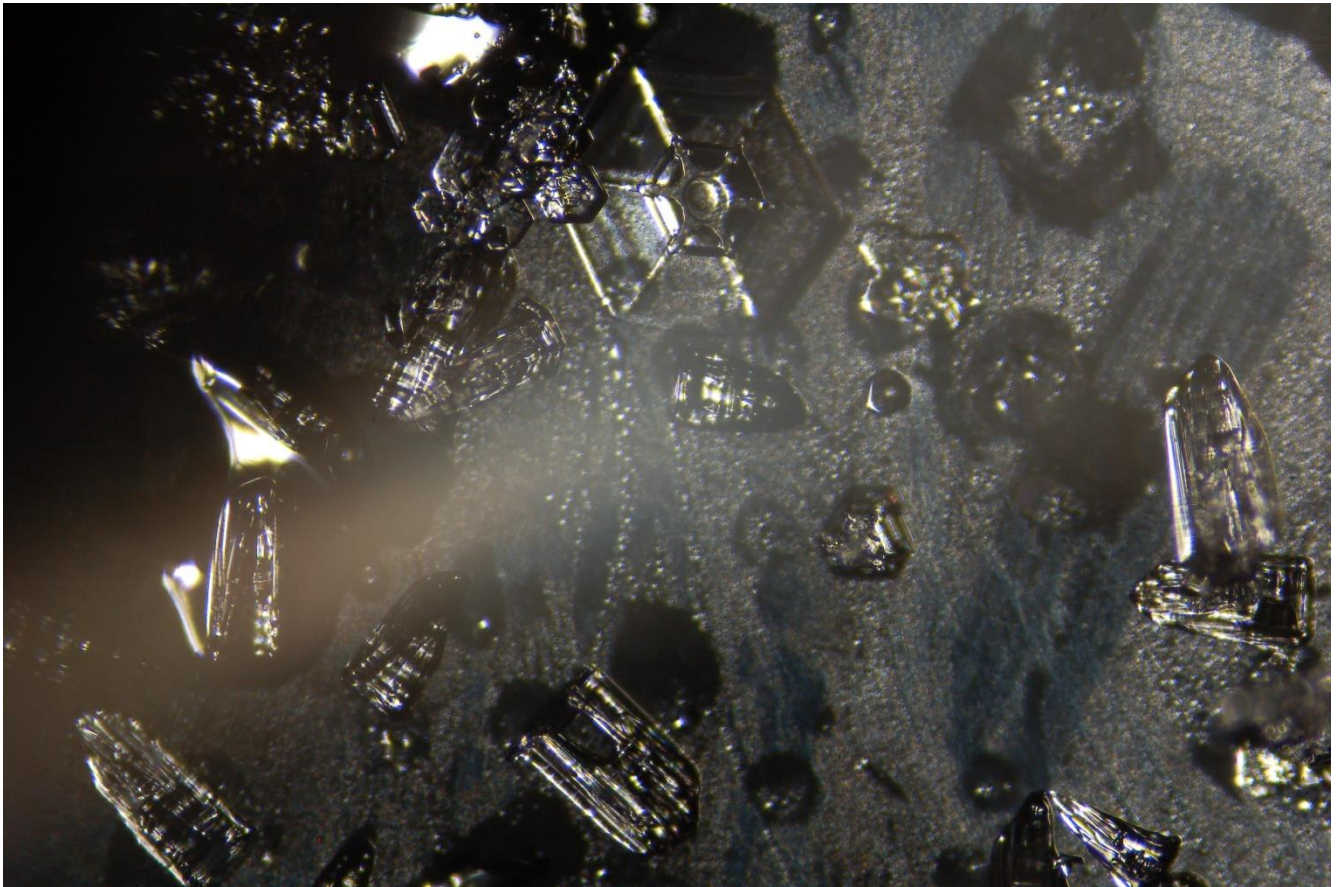


# ICECAPS-ACE Weekly Report

July 19<sup>th</sup>– July 25<sup>th</sup>, 2022

Nicolette Ratz



Ice PIC image captured during snowfall 2022-07-22

*Photo taken by: Nicolette Ratz*

## General Notes:

This week, the POSS began experiencing continuous faults (07/19); two reboots were conducted to restore function; however, they were unsuccessful (07/19 and 07/23). The UPS display was replaced, requiring the battery to be placed in 'bypass mode' (07/22). Booms were raised on the Fluxtower by Summit riggers (07/23). The TSI Manager program froze and went blank (07/24); and the number of unprocessed images continues to increase (07/25).

### General Weather Observations:

Wind and temperature unavailable due to weather script errors from NOAA maintenance this week.

Date	Time (Z)	Wind (kt)	Weather	Visibility	Sky	Temp (C)	Notes
07/19	1200			9999	OVC060		
07/20	1200		-SN	9999	OVC060		
07/21	1200			9999	BKN040		
07/22	1200		SN	9999	OVC009		
07/23	1200			9999	OVC030		
07/24	1200			9999	FEW060 FEW140		
07/25	1200		FZFG -SN	99999	FEW090 SCT110		

### Significant Weather Observations:

- 22-degree Halo 2022-07-23:1400z-1600z
- Diamond dust 2022-07-24:1030z-1200z
- Corona 2022-07-25:1800z

### MSF

- SOLO regulator on HVAC system set to 54 to maintain preferred MSF building internal temperatures 2022-07-21
- UPS display screen replaced 2022-07-22:1600z-1605z; UPS placed in 'bypass mode' during replacement to ensure electrician safety

### ICECAPS-ACE Data Management:

- Data transfer complete 2022-07-19:0625z
- Data transfer complete 2022-07-20:0646z
- Data transfer complete 2022-07-21:0450z
- Data transfer complete 2022-07-22:0714z
- Data transfer complete 2022-07-23:0541z
- Data transfer complete 2022-07-24:0622z
- Data transfer complete 2022-07-25:0435z
- Operating normally

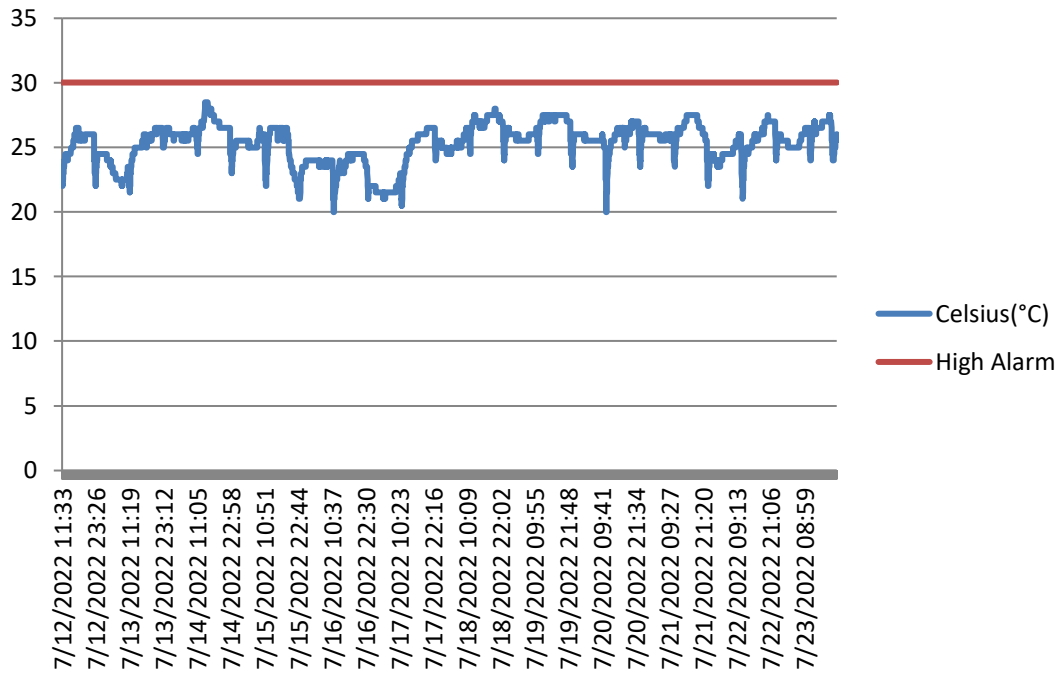
### TSI:

- TSI Manager window blank 2022-07-24
- TSI Manager restarted 2022-07-25:1633z; function appeared to restore
- TSI Manager window blank 2022-07-26; images unprocessed seen briefly as approx. 5000 (maybe 500)

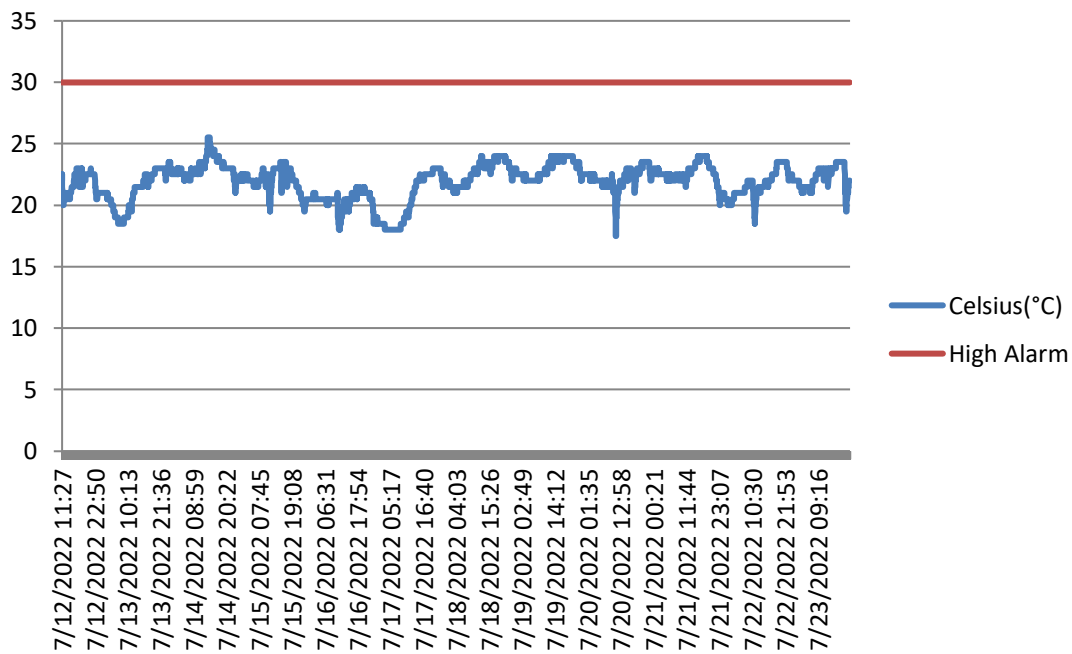
### Radiosonde:

- Discrepancies between NOAA RH data and radiosonde calibration now most prominent during overcast conditions
- Operating normally

## Radioonde Cabinet Inside



## Radioonde Cabinet Outside



**MWR:**

- Operating normally

**SODAR:**

- Amplifier turned off for cleaning 2022-07-25:1243z-1307z
- Computer exhibiting strange behavior when opening files and programs 2022-07-19
- Operating normally

**POSS:**

- Reboot of instrument after disconnecting and reconnecting data cable 2022-07-23:1133z-1141z
- Reboot of instrument 2022-07-19:1221z-1141z
- Instrument exhibiting 'no good packets' faults as of 2022-07-18

**MASC:**

- MASC MacBook Pro restarted to regain function of mousepad 2022-07-23:1208z
- Operating normally

**MMCR:**

- Operating normally

**MPL:**

- Operating normally

**CEILOMETER:**

- Operating normally

**PAERI:**

- Expected to return in August

**IceCAM:**

- Operating normally.

**IcePIC:**

- Ice crystal images taken 2022-07-22:1600-1630z

**MAGIC CPC:**

- Operating normally

**MSF - OPC:**

- Offline
- Expected installation in August

**AWO - OPC:**

- Offline
- Expected installation in August

**SKYOPC:**

- Offline
- Expected installation in August (AWO)

**Flux Tower instrument suite:**

- 2022-07-23 Tripp-Lite used to deenergized HMP 155 (3) toggle for boom lift to 8m, total downtime 1200z-1532z; installed boom at 4m height off ground (thank you riggers!)
- 2022-07-24 Remounted ACE Tower hard drive
- SnD data file created, not logging data for a few hours on 2022-07-14, back on later that day—Heather Guy is aware of this issue
- Tower instruments did not log data after data download 2022-06-23 and 2022-06-28; function to flux laptop was restored after reboot 2022-07-04:1120z-1132z; Technician is in communication with Heather Guy regarding this issue
- KT15 awaiting Heather's arrival; not currently responding post rebuilt cable
- V2 junction box continuity testing conducted 2022-06-17:1300z—found broken solder connection; plans to replace V2 junction box with V1 junction box if cable length allows
- HMP4 Aspirated shield found defective by Heather Guy 2022-06-09; plans to replace with HMP1 Aspirated shield

**Radiometers:**

- Albedo Stand operating normally
  - Domes free of frost- for the entire week
- Solar Tracker replacement expected in August
  - 2022-07-16 SMM4 GPS base station antenna was installed within the view of the inlet mast, mounted ~ three inches above the mast