

# ICECAPS-ACE Weekly Report

April 12<sup>th</sup> – April 18<sup>th</sup>, 2021

Dane Hansen



Pretty.

*Photo: Gene Kornman*

## **General Notes:**

There was progress made with the repair and troubleshooting of the HatPRO this week, though it is still not operational. I replaced the drive assembly following a related error message and badly worn drive belts. We are currently waiting on further instruction from the manufacture.

High winds later in the week made access to the MSF difficult, however, the instruments were largely unaffected. Drifting around the building is become more significant with each storm.

### General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
04-12	12	31 kts at 259	FZFG BLSN	50	VV006	-46	
04-13	12	21 kts at 246	BLSN	200	VV004	-31	
04-14	12	11 kts at 235		3200	BKN033	-42	
04-15	12	12 kts at 151	DRSN	3200	BKN020	-45	
04-16	12	42 kts at 123	FZFG BLSN	25	VV	-32	Gusts up to 45kts
04-17	12	19 kts at 138	BR DRSN	1000	SCT020	-32	
04-18	12	11 kts at 75		9999	SKC	-37	

### Significant Weather Observations:

- 2021-04-13: 22-degree halo.
- 2021-04-14: 22-degree halo.
- 2021-04-15: 22-degree halo and parahelia.
- Data transfer from the new laptop.

### MSF

- Installed additional thermistor in vestibule.
- Operating normally.

### ICECAPS-ACE Data Management:

- 04-12: Data transfer completed at 0610Z.
- 04-13: Data transfer completed at 0617Z.
- 04-14: Data transfer completed at 0442Z.
- 04-15: Data transfer completed at 0451Z.
- 04-16: Data transfer completed at 0452Z.
- 04-17: Data transfer completed at 0459Z.
- 04-18: Data transfer completed at 0525Z.

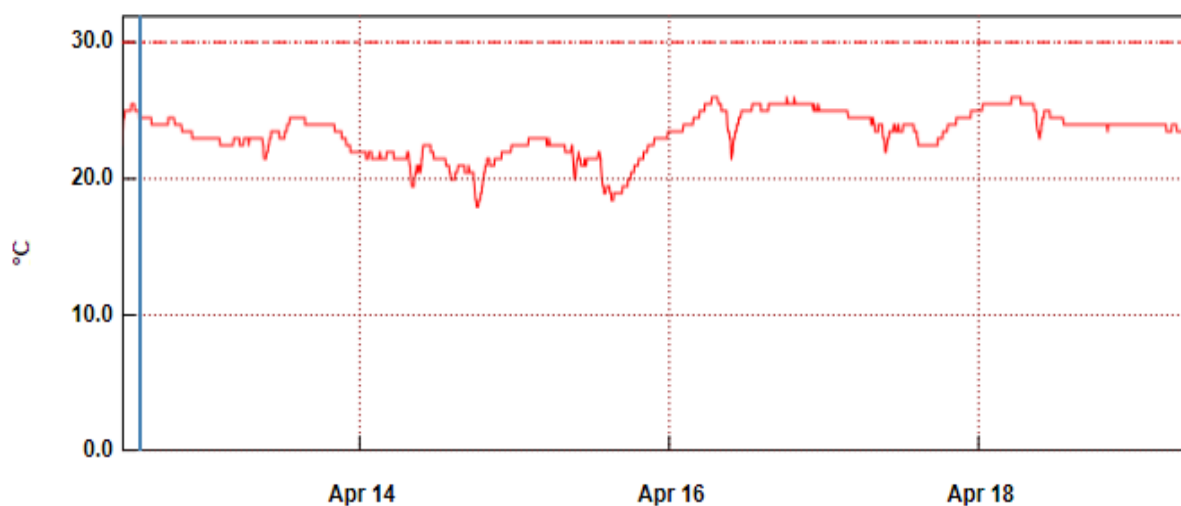
### TSI:

- Offline for the winter season.

### Radiosonde:

- Once daily launches.
- Two radiosondes showed temperature sensor failures after launch, and one failed setup from "S" serial numbers. (3 failures out of 6)
- See chart below for radiosonde cabinet temperatures over the last week.

### RadioSondeBase

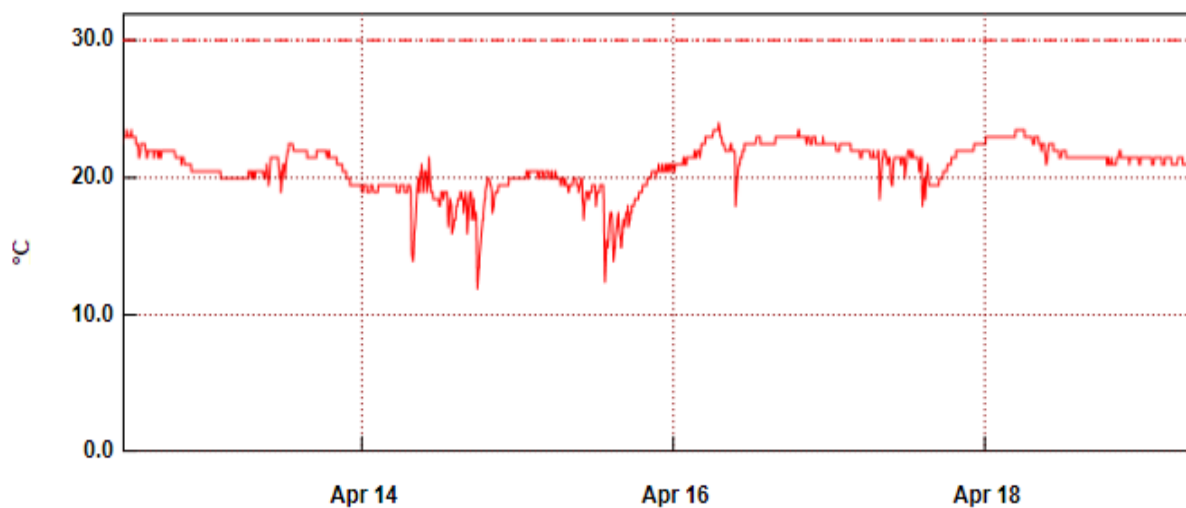


Celsius(°C)  High Alarm

Monday, April 12, 2021 1:55:40 PM [ 24.5 ]

From: Monday, April 12, 2021 11:05:28 AM - To: Monday, April 19, 2021 9:07:28 AM

### SondeCabExt



Celsius(°C)  High Alarm

From: Monday, April 12, 2021 11:07:11 AM - To: Monday, April 19, 2021 9:09:11 AM

**MWR:**

- HatPro boots and connects to software but shows 'Master stepper error' message. Waiting on instruction to continue.
- RPG-150-90 operating normally.

**SODAR:**

- 2021-04-12 1400Z: Left log open blocking quicklooks.
- 2021-04-14 1237 to 1307Z: Cleaned and levelled.
- 2021-04-17 1201 to 1212Z: Cleaned and levelled.
- Operating normally.

**POSS:**

- Operating normally.

**MASC:**

- Offline for winter season.

**MMCR:**

- 2021-04-13 1415Z: Cleared 'Error7' message.
- 2021-04-14 1146Z: Cleared 'Error7' message.
- 2021-04-16 1639Z: Cleared 'Error7' message.
- Operating normally.

**CAPABL:**

- 2021-04-18 1205 to 1224Z: Restarted software and cycled Licel due to 005V reading (no abort file was written).
- Protocol update for restart procedure?
- Operating normally.

**MPL:**

- 2021-04-15 1301 to 1324Z: Performed afterpulse calibration.
- No change to MPL window condition.
- Operating normally.

**CEILOMETER:**

- 2021-04-16 1707Z: 'Window contaminated' and 'Optical receiver cross talk compensation poor' messages. Cleaned window.
- 2021-04-18 1207Z: Error messages clear.
- Operating normally.

**PAERI:**

- 2021-04-16: 'SW' and 'LW responsivity' red flags.
- Operating normally.

**IceCAM:**

- Operating normally.

**IcePIC:**

- No IcePICs this week.

**CPC:**

- 2021-04-12: CPC not running due to 'Air pump current too high.' Removed inlet to thaw.
- 2021-04-13 1245Z: Reinstalled inlet and restarted measurement.
- 2021-04-18 1215Z: Refilled butanol.
- Operating normally.

**MSF - OPC:**

- Operating normally.

**TAWO - OPC:**

- 2021-04-13 at 1207 UTC: TAWO OPC restarted after an outage due to high winds.
- 2021-04-14 at 1248 UTC: TAWO OPC restarted after an outage due to high winds.
- 2021-04-17 at 1323 UTC: TAWO OPC restarted after an outage due to high winds.
- Operating normally.

**SKYOPC:**

- Scheduled for return to summit possibly during the next flight period.

**Fluxtower instrument suite:**

- Operating normally.

**Radiometers:**

- 2021-04-07: Ongoing troubleshooting. Suspected faulty DC power supply to logger box.