

# ICECAPS-ACE Weekly Report

May 18 – May 24, 2020

Ian Geraghty



22° halo with parhelia and parhelic circle observed on May 22, 2020. Photo Ian Geraghty

## General Notes:

This week has primarily been spent getting familiarized with Summit in general, the MSF, and the regular checks/tasks for the ICECAPS instrumentation. There haven't been any critical issues that have come up since turnover which has made this process stress-free and enjoyable!

## General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
05-18	12	5kt from 39	BR	4800	FEW032	-20	
05-19	12	5kt from 220		9999	FEW032	-21	
05-20	12	9kt from 115		9999	FEW032	-20	
05-21	12	12kt from 122		9999	SCT065 SCT130 SCT230	-19	
05-22	12	12kt from 244	IC FZFG DRSN	800	BKN000	-19	
05-23	12	11kt from 337	_-SN FZFG DRSN	1600	SCT000 SCT015 BKN032	-16	
05-24	12	8kt from 96		9999	FEW032 SCT164	-22	

## Significant Weather Observations:

- 22° halo with parhelia observed on 05/22/2020 0945 – 1830Z.
- Kelvin-Helmholtz clouds seen to the south on 05/22/2020 1325 – 1335Z.
- Parhelic circle and diamond dust occurred on 05/22/2020 1400 – 1830Z. Parhelic circle encircled entire sky.

## MSF

- Operating normally

## ICECAPS-ACE Data Management:

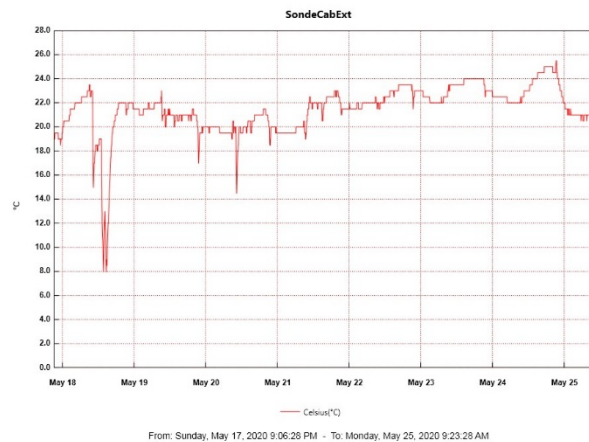
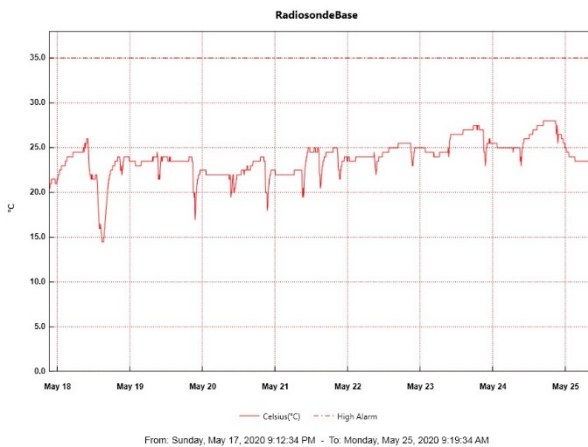
- 05-18: Data transfer completed at 0440Z.
- 05-19: Data transfer completed at 0441Z.
- 05-20: Data transfer completed at 0440Z.
- 05-21: Data transfer completed at 0442Z.
- 05-22: Data transfer completed at 0444Z.
- 05-23: Data transfer completed at 0444Z.
- 05-24: Data transfer completed at 0440Z.

## TSI:

- Offline.

## Radiosonde:

- Operating normally. No SPS errors occurred.
- 2020-05-21: Verified that the 3 internal SPS fans were working.
- See charts below for temperatures inside and outside the radiosonde cabinet over the last week.



## MWR:

- HATPRO offsite for repairs. 150-90 online and operating normally.

## SODAR:

- 2020-05-21 1904-1945Z: Cleaned SODAR dishes.
- 2020-05-22 1831-2022Z: Cleaned and leveled receiver dish.
- Operating normally.

## POSS:

- Offline

## MASC:

- 2020-05-24 1907Z: Data acquisition restarted after replacing firewire repeaters. Snow dropped through decagon to test functionality and images were recorded.

**MMCR:**

- 2020-05-19: Received LabView file not found error. Error caused data after 1600Z not to populate in ARM folder until error was cleared at ~1900Z.
- Operating normally. No sudden transmitter power drops observed.

**CAPABL:**

- Operating normally.

**MPL:**

- Operating normally.

**CEILOMETER:**

- Operating normally.

**PAERI:**

- Operating normally

**IceCAM:**

- Operating normally.

**IcePIC:**

- 05/22/2020: Attempt made to take samples at ~1600Z but no good photos collected.

**CLASP:**

- Offline

**CPC:**

- Offline

**MSF - OPC:**

- Operating normally.
- 2020-05-23: Sporadic spikes in particle counts observed between 0730 – 1930Z. Possibly due to NW winds and snowmobile/SMG activity (not as prominent as in SKYOPC data).

**TAWO - OPC:**

- Operating normally.

**SKYOPC:**

- Operating normally.
- 2020-05-23: Sporadic spikes in particle counts observed between 0730 – 1930Z. Possibly due to NW winds and snowmobile/SMG activity.

**INP Freezing Assay:**

- 2020-05-13: Weekly assays completed.
- 2020-05-20: Additional filters added to sampler.

**Fluxtower instrument suite:**

- Troubleshooting of snow depth sensor is ongoing.
- Operating normally.

**Radiometers:**

- 2020-05-11: Completed weekly data download.
- Operating normally.