ICECAPS-ACE Weekly Report

Week 22, May 27- June 2, 2019

Jonathon Miller

Angela White, current Summit Station Medic, deploys an evening weather balloon amid sun optics.
Photo: Jennie Mowatt

General Weather Observations

Date	Time (UTC)	Temp (°C)	Wind (kt / dir)	Weather	Visibility	Sky	Notes
May 27	12:30	-16	6.0 / 297°		9999	FEW220	
May 28	12:10	-17	4.0 / 04°		9999	FEW	
May 29	12:00	-11	0 / 0°		9999	FEW	
May 30	12:08	-20	0 / 0°		9999	FEW	Fog on horizon
May 31	12:07	-17	2.0 / 272		9999	FEW070	
June 1	12:02	-18	6.0 / 107		9999	FEW	
June 2	12:11	-19	0 / 0		9999	FEW	

Significant Weather Observations:

- Normal

ICECAPS-ACE Data Management Transfer

Date	Time (UTC)
May 27	04:18:29
May 28	04:12:45
May 29	04:27:48
May 30	04:16:27
May 31	04:18:20
June 1	
June 2	04:15:58

Mobile Science Facility (MSF)

May 31:

- At 13:30 UTC, a planned power shutdown was initiated to swap station generators. Power was off for five minutes.
- No issues with instruments on UPS.

June 1:

- Around 11:30 UTC, an un-planned power shutdown occurred. Power was switch back to normal generators.
- Power was off for five minutes.
- No issues with instruments on UPS.

Data Management

- No issues to report

Microwave Radiometers (MWR)

- Operating normally.

SOnic Detection And Ranging (SODAR)

May 31:

- Sodar was taken offline for about five minutes to replace RCA jack.

Precipitation Occurrence Sensor System (POSS)

- Operating normally.

Millimeter Cloud Radar (MMCR)

May 31:

- 16:30--21:30 UTC, Instrument was taken offline for general maintenance.
- Operating normally.

Cloud Aerosol Polarization and Backscatter Lidar (CAPABL)

- Instrument offline.

Micro-Pulse Lidar (MPL)

- Operating normally.

Laser Ceilometer

- Operating normally.

IceCAM

- Operating normally

Polar Atmospheric Emitted Radiance Interferometer (PAERI)

- Operating normally.

Total Sky Imager (TSI)

- Offline for winter season.

Ice Particle Image Camera (ICEPic)

- No images.

Radiosonde

May 28:

- At 15:30 UTC, a planned power shutdown of the Greenhouse was initiated and lasted approximately 45 minutes. The UPS for the radiosonde computer and the Vaisala SPS311 did engaged and was providing power. There was no indication that the two systems had powered down and required restarting.
- At ~23:17, the normally scheduled launch of the balloon (Radiosonde P3030641) indicated some type of communication issue. The archive of that launch showed that the Latitude, Longitude, Range, Height and Direction were not updating.
- A second launch was attempted with another radiosonde (Radiosonde P3030658). The launch archive for that radiosonde indicated similar results.

May 29

- At 10:30 UTC, the Windows7 Balloon computer in the Greenhouse was shutdown and fully restarted/rebooted.
- Radiosonde P3030653 was prepared but failed to acquire any GPS satellites while sitting outside the Greenhouse.
- At ~11:10 UTC, the Vaisala SPS311 control box was powered down and restarted and a second attempt with the same radiosonde was made at 11:21 UTC. The radiosonde was able to acquire GPS signals and was successfully launched. The Latitude, Longitude, Range, Height and Direction were updating as expected.

Multi-Angle Snowflake Camera (MASC)

- The Multi-Angle Snowflake Camera (MASC) was installed and is currently operating.
- Image data is currently waiting for scripts to process and transfer images to the Dataman computer.

Optical Particle Counter (OPC)

- Operation normally

Sky Optical Particle Counter (SKYOPC)

- Instrument has been installed and is currently operational.

Condensation Particle Counter (CPC)

- Operating normally.

Compact Lightweight Aerosol Spectrometer Probe (CLASP)

- Instrument has been installed and is currently operational.

Meteorology and upGPR (Swiss Tower)

- Operation normally

Ice Nucleating Particles (INP) Freezing Assay

- The Ice Nucleating Particles (INP) experiment was brought online and is currently operating.