

ICECAPS-ACE Weekly Report

Week 23, June 3- June 9, 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
June 3	15:30	-15	0 / 0°		9999	FEW	Northwinds
June 4	12:06	-18	0 / 0°	FZFG	1600	OVC030	Northwinds
June 5					9999	SKC	
June 6	20:00	-12	11 / 228°		9999	FEW	
June 7	12:04	-12	0 / 0°	SN	4800	FEW007	Northwinds
June 8	17:50	-6	11 / 225°		4800	BKN050	
June 9	13:15	-9	12 / 217°	FSFG	4800	OVC010	

Significant Weather Observations:

- Normal

ICECAPS-ACE Data Management Transfer

Date	Time (UTC) Transfer Complete
June 3	04:15:58
June 4	04:24:21
June 5	04:21:36
June 6	04:19:12
June 7	04:17:26
June 8	04:26:03 and 20:45:48
June 9	05:54:28

Mobile Science Facility (MSF)

June 5:

- Around 12:30 UTC, an un-planned power shutdown occurred. Power was switched back to normal generators and was off for five minutes.
- No issues with instruments on UPS.

June 8:

- At 17:30 UTC, a planned power shutdown was initiated to swap station generators. Power was off for five minutes.
- No issues with instruments on UPS.

June 9:

- Around 10:53 UTC, an un-planned power shutdown occurred. Power was switched back to normal generators and was off for five minutes.
- No issues with instruments on UPS.

Data Management

- New scripts to transfer ACE and Fluxtower data to Boulder appear to be functioning normally

Microwave Radiometers (MWR)

- Operating normally.

SONic Detection And Ranging (SODAR)

June 5:

- Around 16:50 UTC, The QSC amplifier was turned off so the SODAR could be leveled. The QSC amplifier was not turned back on afterwards and remained off for approximately 27 hours.
- Operating normally.

Precipitation Occurrence Sensor System (POSS)

- Operating normally.
- Pole is tilting and requires adjustment.

Millimeter Cloud Radar (MMCR)

- 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)

- Warm weather triggered a red flag with the ABB temperature.
- Operating normally.

Total Sky Imager (TSI)

- System installed on the roof of the MSF but is currently powered down until realignment procedure is completed.

Ice Particle Image Camera (ICEPic)

- No images.

Radiosonde

June 09:

- A power failure at 10:53 UTC occurred while the radiosonde was still inside the Greenhouse and communicating with Vaisala base station. The UPS kept both the base station and desktop computer powered. The two were communicating and the raw data graph on the Vaisala software was updating.
- The power to the Greenhouse returned at about 10:55 UTC. The Radiosonde was placed outside and It was observed that it had successfully acquired GPS signals.
- The balloon was launched at 11:18 UTC without incident, however, the "Surface Observations" on the Vaisala software was not entered in the Vaisala software afterwards resulting in a launch error.

Multi-Angle Snowflake Camera (MASC)

- Waiting for SOP update.
- Image data is currently waiting for scripts to process and transfer images to the Dataman computer.

Optical Particle Counter (OPC)

- Quicklooks graph not updating

Sky Optical Particle Counter (SKYOPC)

- Quicklooks graph not updating

Condensation Particle Counter (CPC)

- Quicklooks graph not updating

Compact Lightweight Aerosol Spectrometer Probe (CLASP)

- Quicklooks graph not updating

Fluxtower Instrument Suite

- The fluxtower quicklooks display indicates all instruments are operating normally.

Ice Nucleating Particles (INP) Freezing Assay

- Weekly INP assays being conducted.