

ICECAPS-ACE Weekly Report

Week 26, June 24- June 30, 2019

Jonathon Miller



Aerosol Vertical Profiler(AVP) drone station.

General Weather Observations

Date	Time (UTC)	Temp (°C)	Wind (kt / dir)	Weather	Visibility	Sky	Notes
June 24	11:30	-10	10 / 233°		4800	OVC046	
June 25	12:06	-9	16 / 245°		1600	OVC020	
June 26	12:00	-9.23	18 / 246°	-SN	800	OVC010	
June 27	15:32	-10	12 / 112°		4800	BKN010	
June 28	16:35	-9	18 / 087°	BLSN	4800	BKN015	
June 29	17:23	-5	14 / 079°		9999	FEW	
June 30	17:33	-8	11 / 026°		9999	FEW	

ICECAPS-ACE Data Management Transfer

Date	Transfer Complete (UTC)
June 24	05:01:57
June 25	06:14:17
June 26	05:41:44
June 27	05:48:01
June 28	05:01:57
June 29	05:02:33
June 30	05:03:13

Mobile Science Facility (MSF)

June 26: Electrical upgrades were made to the Mobile Science Facility (MSF) power distribution system. This upgrade will allow the option of connecting a stand-alone generator that can power the MSF independently from the rest of the summit station.

- At 9:45 UTC a test generator was connected near the MSF and started.
- At 11:50, MSF was disconnected from station power and connected to generator power
- MSF was returned to station power after testing and upgrade.

Microwave Radiometers (MWR)

- Operating normally.

SONic Detection And Ranging (SODAR)

- Operating normally.

Precipitation Occurrence Sensor System (POSS)

- Operating normally.

Millimeter Cloud Radar (MMCR)

- Operating normally.

Cloud Aerosol Polarization and Backscatter Lidar (CAPABL)

June 28:

- In the "DAQ Settings" tab on the computer, the experiment name was "MeadowlarkVoltageScan" instead of "ICECAPS" as stated in the protocol document.

June 30:

- On the "Polarization Control" tab, the Read Voltage is increasing by $\sim 0.1V$ from 1 to 4 and the Current Polarization is increasing by 1 from 1 to 31.

July 1:

- The system settings have returned to expected values and is operating normally.

Micro-Pulse Lidar (MPL)

June 26:

- At 12:00 UTC, during the daily check it was discovered that no MPL associated software was running. An error popup indicated that Windows had experienced a critical error and auto restarted.
- The last entry in the log folder was 2:00 UTC.
- All software was restarted as described in the MPL protocol and the system began operating normally.

Laser Ceilometer

- Operating normally.

IceCAM

- Operating normally

Polar Atmospheric Emitted Radiance Interferometer (PAERI)

- Operating normally.

Total Sky Imager (TSI)

- System is currently offline.
- We are exploring the option of getting updated software to install on a newer computer system.

Ice Particle Image Camera (ICEPic)

- No images.

Radiosonde

- Launched twice daily.

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.

MSF - Optical Particle Counter (OPC)

- Operating normally

TAWO - Optical Particle Counter (OPC)

- Operating normally

Sky Optical Particle Counter (SKYOPC)

- Quicklooks graph not updating.

Condensation Particle Counter (CPC)

- Operating normally

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.
- Currently updating procedure document.

Aerosol Vertical Profiler (AVP)

- Low cloud ceiling (< 300m) prevented Monday flight.
- Profiles will be conducted several times a week.