

# ICECAPS-ACE Weekly Report

May 25<sup>th</sup> – May 31<sup>st</sup>, 2022

Nicolette Ratz



A defined cloud layer seen from the MSF on a clear day.

*Photo: Nicolette Ratz*

## General Notes:

The Mobile Science Facility (MSF) greeted the Selway crew with a charging station and workspace before departing 2022-05-27 on their first traverse for the Magnetotelluric Analysis for Greenland and Postglacial Isostatic Evolution (MAGPIE). The Micro-pulse Lidar (MPL) was successfully synced to the GPS network time server 2022-05-25. The MSF was prepped for the incoming windstorm 2022-05-29, and maintained afterward through resecuring cables, flags, and shoveling snow drifts for clearance. Lastly, with increasing outside temperatures and increased waste heat, adjustments were made to the MSF heating and cooling system.

**General Weather Observations:**

Date	Time (Z)	Wind (kt)	Weather	Visibility	Sky	Temp (C)	Notes
05-25	12	6	IC	9999	FEW100 SCT130	-16	
05-26	12	11		9999	FEW009 SCT012	-14	
05-27	12	12	IC	9999	FEW008	-15	
05-28	12	18	DRSN	9999	FEW010 SCT120	-14	
05-29	12	28	BLSN	400	OVR007	-6	
05-30	12	4	-SN	9999	BKN008 OVR150	-11	
05-31	12		DRSN	1000	OVR009		

**Significant Weather Observations:**

- 22° halo, parhelic circle, 2 parahelia, and a circumzenithal arc 20220527 1200z-1800z

**MSF**

- N-pick-a-watt and S-pick-a-watt gauges were adjusted by unknown persons to 70° between 2022-05-27:1400z and 2022-05-28:1100z; both were adjusted back to the required 65°
- The building began to warm above ideal temperatures 2022-05-30:1100z
- SOLO meter lowered from 66 to 62 and SOLO fan increased from 40% to 60% to account for rising temperatures
- The building is at within acceptable temperature ranges 2022-05-31

**ICECAPS-ACE Data Management:**

- Data transfer complete 2022-05-25:0409z
- Data transfer complete 2022-05-26:0348z
- Data transfer complete 2022-05-27:0346z
- Data transfer complete 2022-05-28:0419z
- Data transfer complete 2022-05-29:0352z
- Data transfer complete 2022-05-30:0346z
- Data transfer complete 2022-05-31: 0344z
- Operating normally

**TSI:**

- Installed 2022-05-13:1700z
- Operating normally

**Radiosonde:**

- Not currently launching radiosondes—permits pending
- No MS Office license on Radiosonde Computer in SMG

**MWR:**

- Brought online 2022-05-12:1600z
- 4 files per hour instead of 5 as per protocol

**SODAR:**

- One dish is free of ice and snow, the other has compacted ice
- Use of SMG cleared with lead heavy equipment operator to remove ice if needed
- Offline

**POSS:**

- Installed and leveled outside MSF building 2022-05-12
- Offline

**MASC:**

- MASC computer turned on 2022-05-31:1345z
- TeamViewer installed on MASC computer 2022-05-31:1400z
- Mount and enclosure relocated 2022-05-31
- USB and Firewire cables run from MSF to MASC enclosure 2022-05-31

**MMCR:**

- 2 seconds ahead of GPS network time server
- Brought online 2022-05-14:1945z
- MSF leveling 2022-05-17
- Pitch:0.11 Roll:10.91

**MPL:**

- Rebooted 2022-05-25:1100z
- Time synced to GPS network time server 20220525
- Brought online 2022-05-13:1200Z
- Operating normally

**CEILOMETER:**

- 1 second behind GPS network time server
- Installed on MSF roof and turned on 2022-05-13:1530Z
- Operating normally

**PAERI:**

- Uninstalled and removed 2022-05-14:1000Z
- Expected to return in August

**IceCAM:**

- Operating normally.

**IcePIC:**

- No images captured this week

**MAGIC CPC:**

- Operating normally; bi-weekly water reservoir fill

**MSF - OPC:**

- Offline
- Expected installation in August

**AWO - OPC:**

- Offline
- Expected installation in August

**SKYOPC:**

- Offline
- Expected installation in August (AWO)

**Flux Tower instrument suite:**

- 2022-02-01 V2 not communicating, found with snow accumulation indicating loss of function
- Operating normally.

**Radiometers:**

- Albedo Stand: A storm with strong winds in Mid-March caused the network connection to the albedo stand to fail; weekly data downloads
- Solar tracker powered down on 2021-11-01