

ICECAPS-ACE Weekly Report

January 25th – January 31st, 2021

Heather Guy



Moon fog bow at 00Z on 2021-01-31.

Photo: Heather Guy

General Notes:

We celebrated the first sunrise of 2021 this week, as well as our lowest temperature and wind-chill of the season so far (-62 °C and -82 °C). I'm working on cleaning and organizing the MSF in preparation for turnover; as part of that I re-organized and updated the ICECAPS-ACE inventory. We also used the one good weather window of the week to clean frost from the TAWO Met tower and inspect instruments and connections. The incoming crew will not be trained to perform tower climbs during the spring season, so this may be the last climb until the summer at the earliest. All the fluxtower instruments look healthy and are operating normally, see some photos of the tower at the end of this report.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
01-25	12	16 kts at 062		9999	SKC	-56	
01-26	12	21 kts at 118	BLSN, FZFG	300	VV009	-50	
01-27	12	16 kts at 202	BLSN, FZFG	300	VV002	-45	
01-28	12	10 kts at 234		9999	SKC	-55	First sunrise of 2021 at 1409Z
01-29	12	11 kts at 043		9999	SKC	-59	
01-30	12	16 kts at 148	DRSN, FZFG	500	BKN066	-43	
01-31	12	11 kts at 207	-SN	800	OVC028	-42	

Significant Weather Observations:

- 2021-01-28 00Z: Moon halo
- 2021-01-31 00Z: Moon fog bow
- Reminder: Sig. weather photos still not transferring.

MSF

- Operating normally

ICECAPS-ACE Data Management:

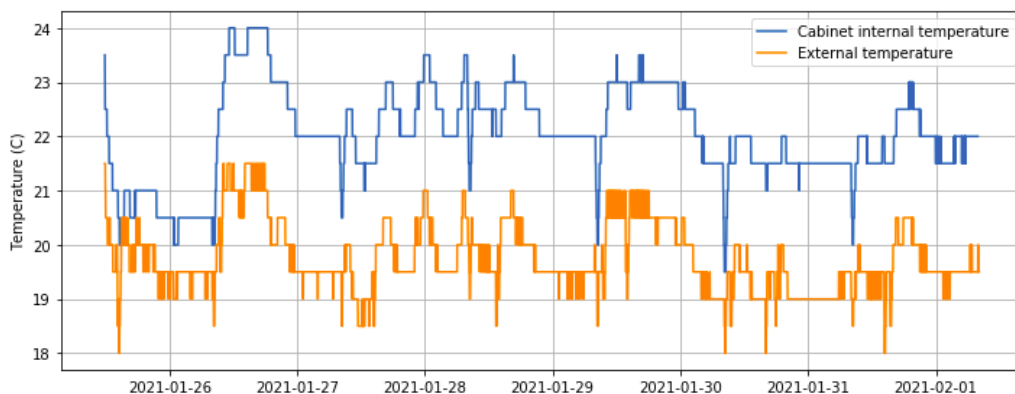
- 01-25: Data transfer completed at 0446Z.
- 01-26: Data transfer completed at 0435Z.
- 01-27: Data transfer completed at 0441Z.
- 01-28: Data transfer completed at 0443Z.
- 01-29: Data transfer completed at 0442Z.
- 01-30: Data transfer completed at 0442Z..
- 01-31: Data transfer completed at 0440Z.

TSI:

- Offline for the winter season.

Radiosonde:

- Once daily launches.
- 2021-01-26 1901Z: SPS connection briefly lost, outside of sounding so no data impacted.
- See chart below for radiosonde cabinet temperatures over the last week.



MWR:

- RPG-150-90 operating normally.

SODAR:

- 2021-01-25 1357-1419Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

POSS:

- Operating normally.

MASC:

- Offline for winter season.

MMCR:

- Operating normally.

CAPABL:

- Operating normally.

MPL:

- No change to MPL window condition.
- Operating normally.

CEILOMETER:

- Operating normally.

PAERI:

- 2021-01-27 1645Z: Cleaned scene mirror after blowing snow.
- 2021-01-29: Intermittent maxSampleStdDev errors overnight during cold temps.
- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- No IcePICs this week 😞

CPC:

- Offsite: Expected back at Summit on the final flight of February turnover.

MSF - OPC:

- Operating normally.

TAWO - OPC:

- Operating normally

SKYOPC:

- Offline, due to be sent out in February for repair.

Fluxtower instrument suite:

- 2021-01-31 1330-1700Z: Inspected and cleaned frost from all Met tower instruments. Note that this might be the last tower climb before the summer season at the earliest. See tower photos below.
- Operating normally.

Radiometers:

- Solar tracker misalignment persists, otherwise operating normally.



TAWO Met tower, before, during and after cleaning on 2021-01-31