

ICECAPS-ACE Weekly Report

August 24 – August 30, 2020

Heather Guy



Encroaching stratocumulus 2020-08-25

Photo: Heather Guy

General Notes:

The summer crew and the final C-130 flight of the year left Summit on schedule on the afternoon of 2020-08-24. The winter crew have spent most of this week catching up on outstanding training, housekeeping and recovery from the flight period. ICECAPS tasking this week included completing the winterization of cables on the fluxtower instrument suite and installing a new higher powered fan in the radiosonde base station enclosure. There was a brief unplanned station power outage on 2020-08-27, all instruments powered by UPS were unaffected.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
08-24	12	6kts at 212	BR	4800	FEW	-20	Thin layer of mist halfway up TAWO Met tower (upper and lower tower sections are clearly visible)
08-25	12	4kts at 236	FZFG	800	SKC	-21	Bank of stratocumulus moved across station ~19Z
08-26	12	6kts at 304		4800	OVC013	-14	-SN overnight and in am. Dendrites.
08-27	12	6kts at 319		9999	FEW080	-24	Stratus / fog bank on southern horizon
08-28	12	1kts at 344	FZFG	9999	VV001	-20	
08-29	12	19kts at 127		4800	BKN023	-19	Sn starting 1600z through the evening.
08-30	12	6kts at 000	FZFG	600	VV002	-17	Fog cleared 1330z. Clear day with very low aerosol concs.

Significant Weather Observations:

- 2020-08-25 0900 – 1200Z: Fog bow
- 2020-08-25 1400 – 1600Z: Fog bow
- 2020-08-28 1030 – 1200Z: Fog bow
- 2020-08-28 2000Z: Fog bow
- 2020-08-29 0900 – 1000Z: Fog bow
- 2020-08-30 1200 – 1300Z: Fog bow

MSF

- 2020-08-27 1136Z: Unplanned station power outage. All instruments were supported by the UPS.

ICECAPS-ACE Data Management:

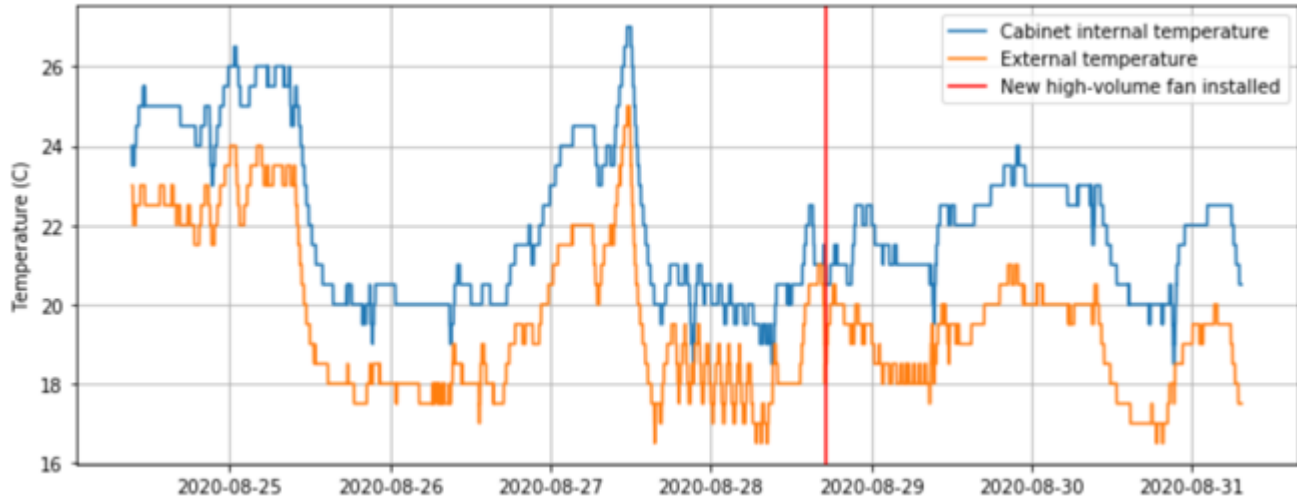
- 08-24: Data transfer completed at 0451Z.
- 08-25: Data transfer completed at 0456Z.
- 08-26: Data transfer completed at 0451Z.
- 08-27: Data transfer completed at 0451Z.
- 08-28: Data transfer completed at 0449Z.
- 08-29: Data transfer completed at 0456Z.
- 08-30: Data transfer completed at 0452Z.

TSI:

- 2020-08-30: Software rebooted to reinitialize image processing, required 3 reboots.

Radiosonde:

- 2020-08-28 1711 – 1814Z: Radiosonde base station enclosure was fully cleaned; weather stripping was replaced and some gaps in the enclosure were identified and sealed. The inlet fan was replaced with a higher-powered fan. Computer and SPS rebooted.
- See chart below for temperatures inside and outside the radiosonde cabinet over the last week:



MWR:

- 2020-08-24: Found with error: 'Slave elevation mirror does not respond'. Passed normal daily checks once error was cleared. PI's contacted.
- Operating normally

SODAR:

- 2020-08-24 1206-1218Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

POSS:

- Operating normally.

MASC:

- 2020-08-24 1252-1255Z: MASC computer rebooted due to frozen trackpad.
- Operating normally.

MMCR:

- 2020-08-24 1258: Labview error 7 and 'Dwellcontrol_calibration' errors cleared; daily calibration check missed.
- 2020-08-30 1400: Labview error 7 and 'Dwellcontrol_calibration' errors cleared; daily calibration check missed.
- Monitoring transmitter power fluctuations.

CAPABL:

- Operating normally.

MPL:

- Operating normally.

CEILOMETER:

- 2020-08-24 1307Z: Data was up to date, but Ceilometer computer was unresponsive during daily check. After ctrl + alt + del the screen went black for ~5 minutes, after which it recovered itself and continued to operate normally.
- Operating normally.

PAERI:

- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- No IcePICs taken this week.

CPC:

- Offsite for repairs.

MSF - OPC:

- Operating normally

TAWO - OPC:

- Operating normally.

SKYOPC:

- Operating normally.

Fluxtower instrument suite:

- 2020-08-22 - ongoing: Suspect data from HMP4 (14 m T/RH sensor), possible aspirated shield failure.
- 2020-08-25 1730 – 1930Z: Intermittent outages during cable winterization.
- 2020-08-25 1927 – 1935Z: All aspirated shields powered down to check fuse on suspect shield. Fuse is OK.

Radiometers:

- Operating normally.