

ICECAPS-ACE Weekly Report

August 10 – August 16, 2020

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Performing liquid nitrogen calibrations for the HATPRO.

General Notes:

Heather made it to Summit just before the weather turned and we have been making good progress on turnover tasks. The HATPRO was installed on the MSF roof and liquid nitrogen calibrations are underway. The science cargo pallet that contained the CPC, CLASP, INP sampler, and MWR calibration made it out on the 2020-08-16 flight.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp (C)	Notes
08-10	12	21kts at 109	FZFG IC DRSN	800	FEW016 SCT032 BKN160	-13	
08-11	12	17kts at 128		3200	FEW065 SCT080 BKN130	-11	
08-12	12	11kts at 159	IC DRSN BR	3200	FEW032	-19	
08-13	12	29kts at 311	BLSN	800	VV002	-17	
08-14	12	25kts at 348	BLSN	800	VV005	-17	
08-15	12	30kts at 087	BLSN	100	VV003	-13	
08-16	12	24kts at 168	BLSN	800	BKN019	-11	

Significant Weather Observations:

- None.

MSF

- None.

ICECAPS-ACE Data Management:

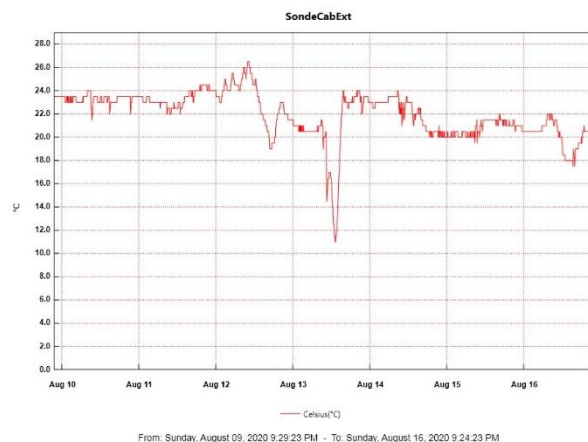
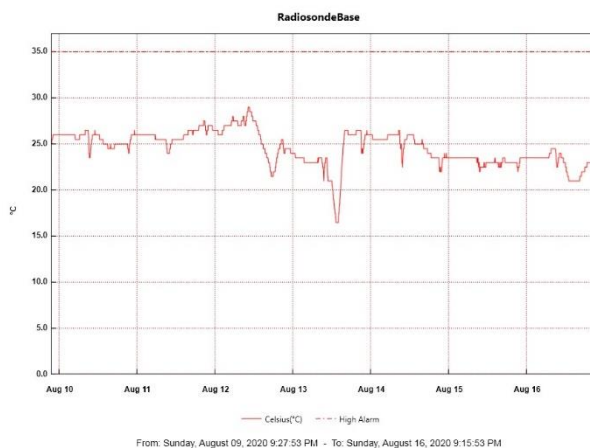
- 08-10: Data transfer completed at 0500Z.
- 08-11: Data transfer completed at 0454Z.
- 08-12: Data transfer completed at 0451Z.
- 08-13: Data transfer completed at 0457Z.
- 08-14: Data transfer completed at 0455Z.
- 08-15: Data transfer completed at 0457Z.
- 08-16: Data transfer completed at 0502Z.

TSI:

- 2020-08-11: Software rebooted to reinitialize image processing.
- 2020-08-12: Software rebooted to reinitialize image processing.
- 2020-08-13: Software rebooted to reinitialize image processing.

Radiosonde:

- 2020-08-11 1200Z: Temperature sensor failure at launch. Second sounding performed at 1137Z.
- 2020-08-13 0000Z: First launch failed in high winds but radiosonde was recovered and launched again at 2332Z.
- 2020-08-14 1200Z: Temperature sensor failure at launch. Second sounding performed.
- 2020-08-15 1200Z: Temperature sensor failure at launch. No second sounding performed due to winds above 30 kts.
- After reviewing past soundings, it looks like ≤ 1 -minute radiosonde signal dropouts have been occurring all summer.
- See charts below for temperatures inside and outside the radiosonde cabinet over the last week.



MWR:

- 2020-08-12 1735Z: HATPRO installed on the roof and data acquisition was restarted with both radiometers.
- 2020-08-14 1609 – 1817Z: Performed LN2 calibrations for HATPRO and 150-90.
- Operating normally.

SODAR:

- 2020-08-12 1252-1325Z: Cleaned and leveled the SODAR dishes.
- Operating normally.

POSS:

- Offline. Awaiting arrival of replacement Telebyte.

MASC:

- 2020-08-13 1859Z: 2 camera bus resets occurred.
- Operating normally.

MMCR:

- Operating normally. Monitoring transmitter power fluctuations.

CAPABL:

- Operating normally.

MPL:

- 2020-08-15 1400 – 1430Z: Performed monthly afterpulse calibration.
- Operating normally. Monitoring laser energy fluctuations.

CEILOMETER:

- Operating normally.

PAERI:

- 2020-08-14 1310 - 1400Z: Cleaned scene mirror
- 2020-08-15 1328 - 1333Z: Cleaned scene mirror.
- Operating normally.

IceCAM:

- Operating normally.

IcePIC:

- No IcePICs taken this week.

CLASP:

- Shipped back to Leeds.

CPC:

- Offsite for repairs.

MSF - OPC:

- 2020-08-11 115Z: Brought the OPC inside to defrost for 24 hours after the counts became low and stopped matching the trends of the TAWO OPC.

TAWO - OPC:

- 2020-08-14 1253Z: Offline due to network interruption caused by high winds.
- 2020-08-16 1419Z: Data acquisition restarted.
- Operating normally.

SKYOPC:

- Operating normally.

INP Freezing Assay:

- Sampler shipped out. Decommissioning of other equipment in progress.

Fluxtower instrument suite:

- 2020-08-13 1355Z: Data stopped transmitting due to wifi link failure in high winds.
- 2020-08-14 2154Z: Wifi link rebooted and data transmission resumed.
- Operating normally.

Radiometers:

- 2020-08-10: Completed weekly data download.
- Operating normally.