

ICECAPS-ACE Weekly Report

September 30 – October 6, 2019

Heather Guy



Clearing the morning frost from the MSF aerosol tower. 10-05.

General Notes:

Preparation for turnover and workspace organisation continued this week in advance of the Twin Otter flight that is due to bring in the new crew, including the new ICECAPS science technician Jess Ackerman, on Thursday (10th October). We had plenty of clear skies and freezing fog in the first half of the week, that transitioned to some high winds, blowing snow and cloudier skies for the second half.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp	Notes
9-30	12	189°, 9 kn		9999	SKC	-28	FZFG am.
10-1	12	174°, 9 kn		9999	FEW262	-29	FZFG am.
10-2	12	128°, 12 kn		9999	FEW	-30	
10-3	12	110°, 19 kn		9999	SCT197	-24	
10-4	12	178°, 19 kn	BLSN	3200	FEW065	-17	
10-5	12	136°, 22 kn	BLSN	3200	OVC019	-15	
10-6	12	135°, 11 kn	SN	3200	OVC022	-21	

Significant Weather Observations:

- 9-30 1200-1700z: Clear skies for checking CAPABL.
- 10-1 1900-2100z: Very dense low FZFG (vis < 500m), not detected by instruments.
- 10-2 1200-1600z: Clear skies for checking CAPABL.
- 10-4 1200-1800z: Halo and pillar associated with blowing snow.

MSF

- 10-2: SOLO temperature set point increased by 2F to 48F. Temperatures inside MSF ranging between 58-61F.
- Operating normally.

ICECAPS-ACE Data Management:

- 9-30: Data transfer completed at 0721z.
- 10-1: Data transfer completed at 0602z.
- 10-2: Data transfer completed at 1018z.
- 10-3: Data transfer completed at 0923z.
- 10-4: Data transfer completed at 0647z.
- 10-5: Data transfer completed at 0626z.
- 10-6: Data transfer completed at 0528z.

MWR:

- Operating normally.

SODAR:

- Operating normally.

POSS:

- Operating normally.

MMCR:

- 10-2 1217-1224z: Desiccant replaced. Used desiccant recharged.
- Operating normally.

CAPABL:

- 10-1 1156-1209Z: Laser powered down to clear snow from window.
- 10-3 1140-1145Z: Laser powered down to clear snow from window.
- 10-4: CAPABL protocol and flashlamp change protocol updated after discussion with Neely.
- Operating normally.

MPL:

- 10-5: Error: Missing calibration files.
- Operating normally

VCEIL:

- Operating normally.

IceCAM:

- Operating normally

PAERI:

- 10-2: LW/SW responsivity flags red first thing, cleared themselves.
- Operating normally

TSI:

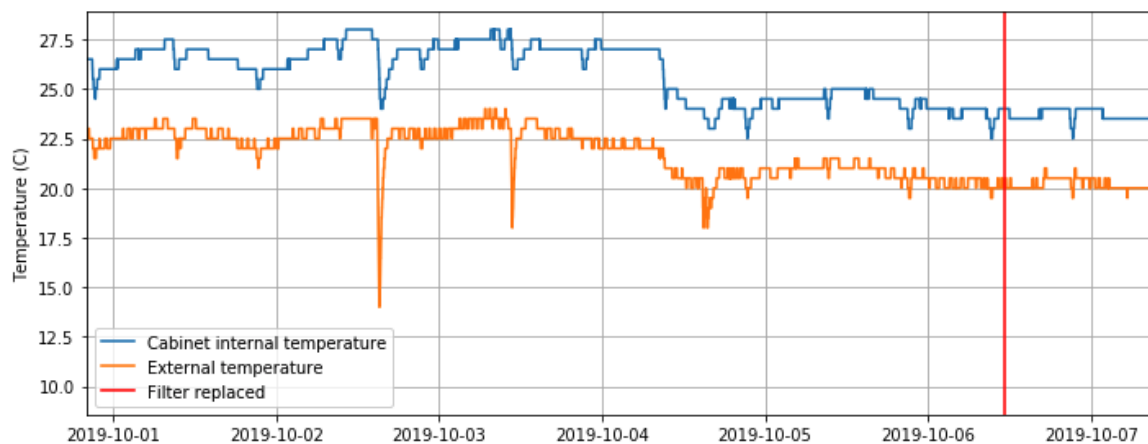
- Offline for winter season,

IcePIC:

- 10-2: IcePIC system brought inside to defrost. Optics cleaned.
- 10-6 1200-1215z: Plates and irregulars, 4 photos uploaded.

Radiosonde:

- Twice daily launches.
- 9-30: Balloon table plastic replaced.
- 10-6 1121z: Face-mask filter changed.
- See plot below for temperature inside the enclosure over the last week.



MASC:

- 9-27: Data reduction script and file transfer offline.
- 10-1 1223z: MASC restarted due to frozen trackpad. Data reduction script still offline.
- 10-5: MASC data reduction back online. Backlog of data transferred.
- Operating normally.

MSF - OPC:

- Operating normally.

TAWO – OPC:

- Operating normally.

SKYOPC:

- Operating normally.

CLASP:

- Operating normally.

CPC:

- 10-2 1311z: Butanol refilled.
- 10-2 1315z: CPC filter changed.
- 10-2 1315 to 10-3 1127z: CPC offline due Air pump problem associated with filter change; the error cleared after the filter change, but data collection was not restarted.
- 10-5 0105 – 1124z: CPC error, air pump problem. Outlet was blocked, brought in to defrost then error cleared.
- Operating normally.

Fluxtower instrument suite:

- 10-1 1750-1756z: Some short gaps in fluxtower data while improvements were made to the power management and data logging system.
- Operating normally.

INP Freezing assay:

- 10-1 1845z: During filter change, filter charger jammed. This was cleared following the instructions in the sampler manual. Filter samples collected.
- 10-2 1330-1730z: Weekly sample assay run; data transferred.