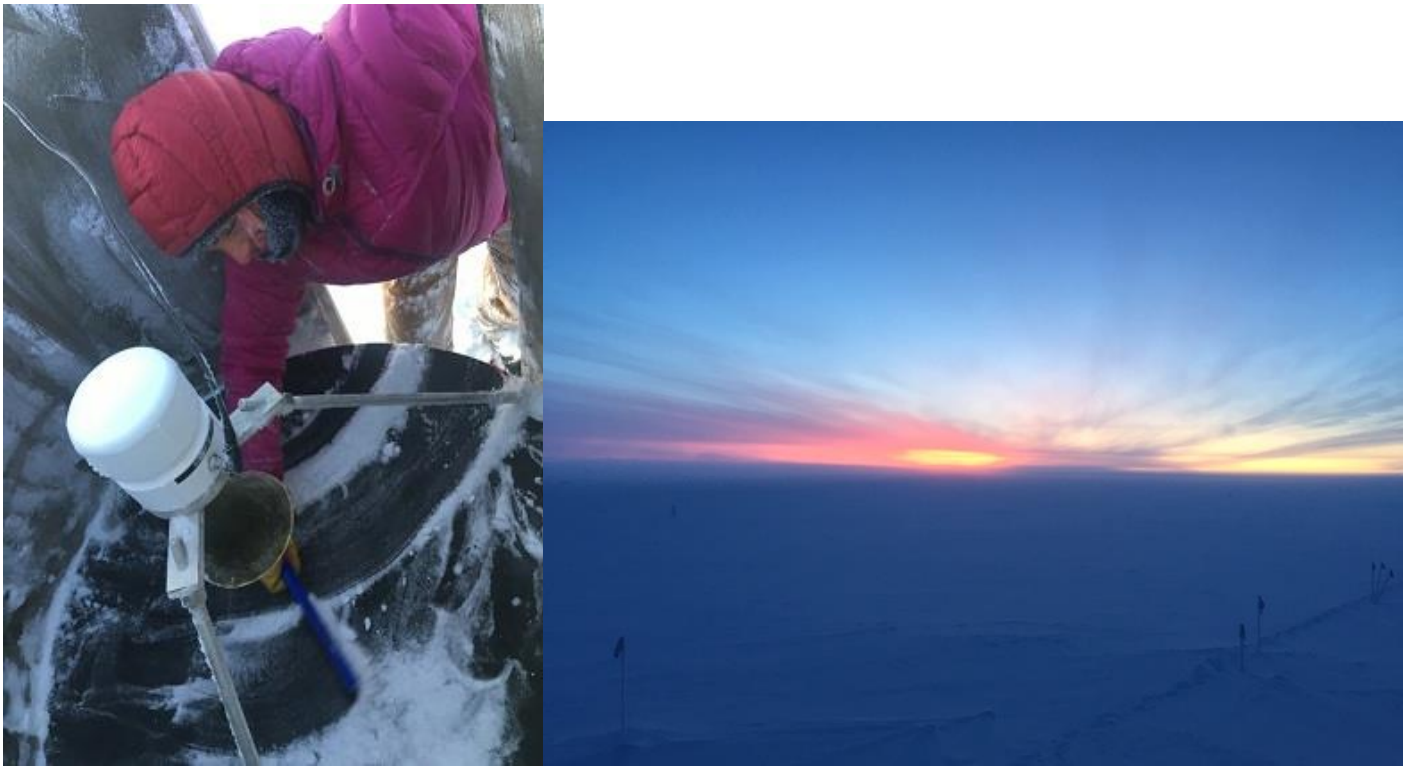


ICECAPS-ACE Weekly Report

November 11 - 17, 2019

Jess Ackerman



Left: 2019-11-09: ICECAPS Tech Jess cleaning the SODAR dish of snow.

Right: 2019-11-13: The last of our sun.

General Notes:

The windy weather on 11-14 and 11-15 was definitely the highlight of the week. The max wind measured in at 50 knots! An exhilarating, successful, and safe 3-person balloon launch took place in the morning of 11-15 in 32 knots of wind. Needless to say, Summit Station looks a bit different now with the extreme snow drifting. We have a lot of clean up ahead of us. The positive side is the wind kindly cleaned off all the build-up of frost on the tower instruments. Frustrating Northwinds prevented us from being able to complete our ICESAT Traverse during a narrow window of opportunity on 11-13.

General Weather Observations:

Date	Time (Z)	Wind	Weather	Visibility	Sky	Temp	Notes
11-11	12	120°, 16 kn		800	BKN196	-34	
11-12	12	120°, 12 kn	FZFG	800	BKN057	-37	
11-13	12	343°, 11 kn		800	SCT057	-36	Northwinds
11-14	12	116°, 23 kn	BLSN	500	BKN057	-36	38 kn winds
11-15	12	140°, 26 kn	BLSN	500	OVC003	-26	50 kn max
11-16	12	17°, 12 kn	DRSN	700	BKN008	-34	Northwinds
11-17	12	138°, 17 kn	DRSN	800	FEW000	-43	Stratus distant

Significant Weather Observations:

- No significant weather this week.

MSF

- Operating normally.

ICECAPS-ACE Data Management:

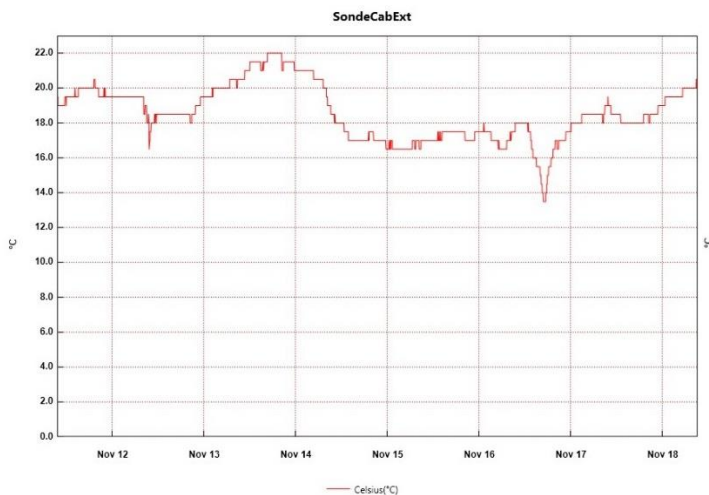
- 11-11: Stop ArchieveToBoulder at 1320Z.
- 11-12: Stop ArchieveToBoulder at 1527Z.
- 11-13: Stop ArchieveToBoulder at 1529Z.
- 11-14: Stop ArchieveToBoulder at 1233Z.
- 11-15: Stop ArchieveToBoulder at 1426Z.
- 11-16: Stop ArchieveToBoulder at 1247Z.
- 11-17: Stop ArchieveToBoulder at 1147Z.

TSI:

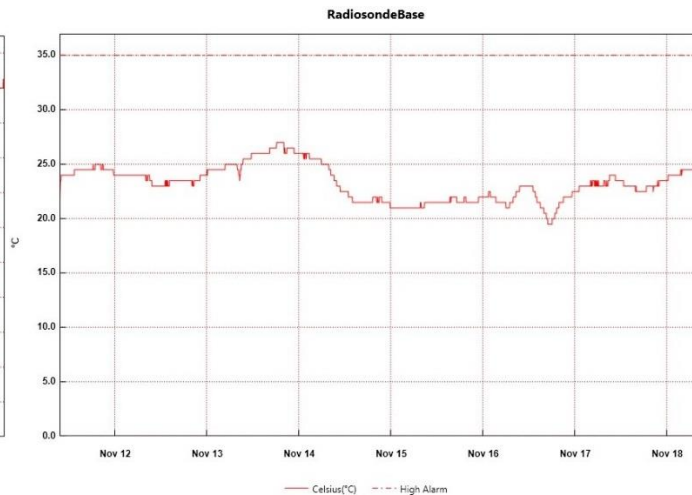
- Offline for winter season.

Radiosonde:

- Twice daily launches.
- 2019-11-13 1115Z: Radiosonde had 105% RH. Terminated sounding, launched 2nd sonde = ok.
- Still hoping to get Easy Log USB program installed on Radiosonde computer for ease.
- See charts below for temperatures outside and inside the Radiosonde cabinet over the last week.



From Monday, November 11, 2019 9:37:34 AM - To: Monday, November 18, 2019 9:17:34 AM



From Monday, November 11, 2019 9:37:45 AM - To: Monday, November 18, 2019 9:22:45 AM

MWR:

- Operating normally.

SODAR:

- Unable to clean this week due to high winds.
- Operating normally.

POSS:

- 2019-11-15 0124-0813Z: Max Noise Limit and DC Offset multiple errors, likely due to winds. PI notified.
- Operating normally.

MASC:

- 2019-11-13 1422Z: YES “MASC waiting for status” message has returned. PI notified.
- 2019-11-16 1253Z: Rebooted computer due to frozen trackpad.

MMCR:

- 2019-11-15 1338Z: GPIB interrupted the daily calibration. Errors cleared. PI notified.
- Operating normally.

CAPABL:

- 2019-11-14 1307-1312Z: TCPIP Error. System rebooted. PI notified.
- 2019-11-17 1226-1232Z: TCPIP Error. System rebooted. PI notified.

MPL:

- 2019-11-15 1607-1633Z: Monthly calibration completed.
- 2019-11-16 1246Z: Noticed data not saving during dailies. Restarted data collection. Notified PI.
- Operating normally

VCEIL:

- Operating normally.

PAERI:

- 2019-11-11 1320-1321Z: Fan unplugged to clear hood of snow. 1341Z: LW & SW Responsivity Red Flags. 1511Z: Cleaned mirror. 1518Z: Encoder Scene Confirm Red Flag. 1525Z: Attempted to clear snow off sides of instrument down hatch. PI notified of events.
- 2019-11-12 0500Z: PAERI happy again. Resolved itself overnight per PI.
- 2019-11-14 1605Z: LW & SW Responsivity Red Flags. 1738Z: LW & SW HBB NEN Yellow Flags. PI notified. 38kn winds.
- 2019-11-15 1346Z: Cleaned mirror and Red Flags cleared shortly after. 1400Z: Fan found unplugged outside via strong winds, brought inside to defrost.
- 2019-11-16: 1222Z cleaned mirror due to Responsivity Red Flags since 0405Z. 1336Z re-installed outside fan, minor reinforcement repairs completed. Cleaned mirror again at 1345Z due to Red Flags. All is well.
- 2019-11-17 1221: Outside Air Temp Sensor not functioning. Not critical for data. Currently troubleshooting with PI.



Left to Right: The crack “before”; the crack “after”; a happy PAERI fan hood (attachment reinforced too).

IceCAM:

- 2019-11-11 1404Z: One single picture file error for 1345.01.jpg. No other errors. PI notified.
- Operating normally.

IcePIC:

- No IcePics this week.

CLASP:

- 2019-11-11 1306Z: Instrument removed from roof to defrost due to poor data.
- 2019-11-12 1455Z: Instrument returned to roof. PI in process of troubleshooting.

CPC:

- 2019-11-14 1400Z: Butanol refilled and condensate emptied.
- Operating normally.

MSF - OPC:

- Operating normally.

TAWO - OPC:

- 2019-11-11: Cable loosely seated in connector on tower; disconnected and plugged back in. Taped with mastic tape in attempts to firmly seat cable. Successfully restarted data collection on flux laptop.
- 2019-11-15: Cable dislodged by high winds during storm event; plugged back in and re-initialized data collection.

SKYOPC:

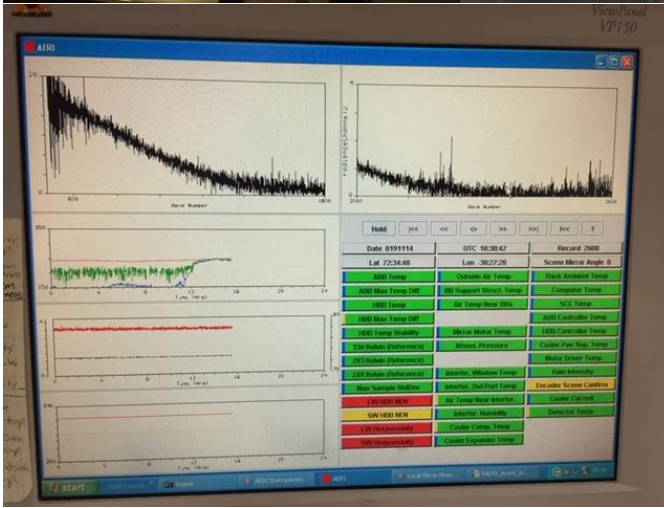
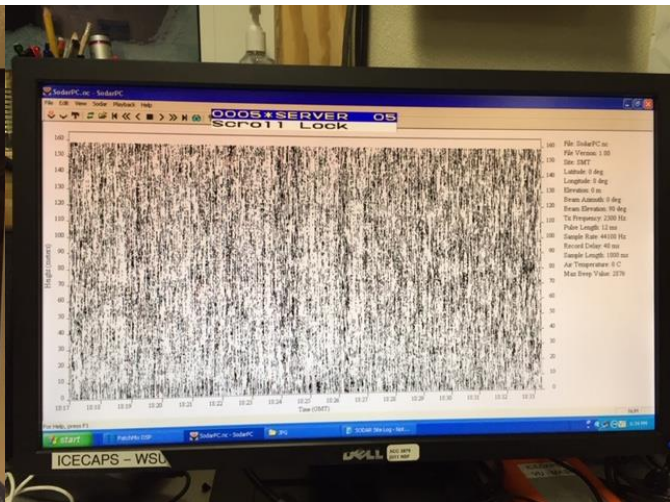
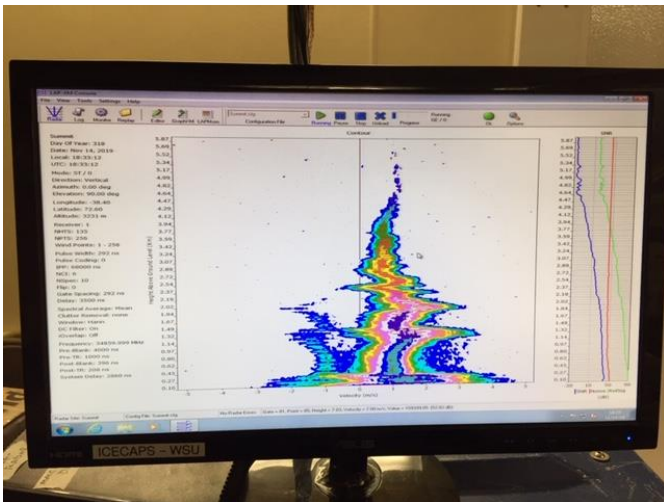
- Operating normally.

INP Freezing Assay:

- 2019-11-13 1346z: Filter samples collected from TAWO.
- 2019-11-14: Weekly INP sample assays run and data sent.

Fluxtower instrument suite:

- 2019-11-09: Flux tower instruments KT15, HMP3 (9m temperature sensor), HMP4 (15m temperature sensor), Vents2 (9m 2D sonic), Metek2 (15m 2D sonic) lost power at 1815Z. Diagnostic checks employed per PI instruction this past week, with failed power supply suspected. Troubleshooting ongoing.
- 2019-11-14: Communications connection enabling data transfer between Tower instruments and TAWO lost. Troubleshooting in progress.



What instruments look like in 38 knots of wind: MMCR, SODAR, & PAERI... and the final TAWO sunrise.