

ICECAPS Weekly Report

January 23 – January 29, 2017

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The newly installed MSF network switch is populated with individually labeled cables. SWD.

General:

- 1/24: The MSF network switch was swapped from 17:35 to 17:53z, resulting in an 18-minute outage. The previous unit had been steadily failing and the replacement was installed to avoid a less-controlled outage at a future date.

Significant Weather Observations:

- 1/23: Scattered stratocumulus, -36C, 14 kts.
- 1/24: Scattered stratus, -31C, 15 kts.
- 1/25: Scattered stratocumulus, -31C, 12 kts.
- 1/26: Few stratus, -52C, 9 kts.
- 1/27: Few stratus, -58C, 5 kts.
- 1/28: Few stratus, -50C, 12 kts.
- 1/29: Overcast stratus, -29C, 18 kts.

ICECAPS Data Management:

- 1/23: Data transfer complete at 11:14z.
- 1/24: Data transfer complete at 13:32z.
- 1/25: Data transfer complete at 13:39z.
- 1/26: Data transfer complete at 18:41z.
- 1/27: Data transfer complete at 10:42z.
- 1/28: Data transfer complete at 19:25z.
- 1/29: Data transfer complete at 20:37z.

MWR:

- Operating normally.

SODAR:

- Operating normally.
- 1/29: Cleaned snow out of transmitter and receiver dishes 12:16-12:29z.

POSS:

- Operating normally.

MMCR:

- Operating normally.
- Pitch 0.00, roll -0.05 as of 1/23.

CAPABL:

- Operating normally.
- 1/25: System was discovered displaying a startup error ('disk boot failure') identical to the event on 12/15. In coordination with Robert, the system was rebooted, but LabView repeatedly crashed upon running the instrument script ('illegal memory access'). The full system was power-cycled, including the mirror controllers: this committed us to a realignment step. Initial alignment was sufficiently poor that standard signal-peaking alignment techniques were unsuccessful. Further alignment efforts failed and were called off due to the late hour.
- 1/26: Diagnostics continued with Robert. The projected beam shape on window was inspected and found slightly truncated along one edge, suggesting an issue with first-stage mirror alignment. Wider-ranging manual alignment attempts of first stage mirror were performed; this successfully restored the full signal, with the upper-right knob on kinematic mount requiring 1.7 rotations! System resumed normal operation.

MPL:

- Operating normally.

VCEIL:

- Operating normally.

Hotplate:

- Offsite for repairs since 6/9/2016.

IceCAM:

- Operating normally.

PAERI:

- Operating normally.

TSI:

- Stored in MSF for winter.

IcePIC:

- 1/27: Slides placed for collection 13:23-13:57z. Particles photographed include isolated bullets, bullet rosettes and radiating plates. Slides were frosted while carrying the -50C slides to the IcePic shed in my liner-gloved hands, but particles are still fully discernible.

Radiosonde:

- Twice daily soundings.

MASC:

- Offsite for repairs since 5/3/2016.