ICECAPS Weekly Report

April 11, 2016 – April 17, 2016
Sam Dorsi

Work activities high on the TAWO tower provide a new perspective on the MSF. SWD.

General:
- None.

Significant Weather Observations:
- 4/11: Broken stratocumulus, 12 kts, -18C
- 4/12: Blowing snow, 28 kts, -6C
- 4/13: Blowing snow, 29 kts, -18C
- 4/14: Overcast altostratus, 10 kts, -23C
- 4/15: Broken stratus, drifting snow, 20 kts, 35 kts in afternoon, -17C
- 4/16: Scattered altostratus, drifting snow, 12 kts, -33C
- 4/17: Scattered stratus, 11 kts, -38C

Dataman Account:
- Operating normally.
- 4/11: Transfer did not occur, due to disk space errors that occurred during MASC data queuing. Transfer re-initiated at 23:24z and files were uploaded before the end of day kill cron.
- 4/12: Transfer completed at 20:39z.
- 4/13: Transfer completed at 12:36z.

- 4/14: Transfer completed at 20:06.
- 4/15: The queuing issue of 4/11 was repeated, with MASC disk space errors occurring during the GetData.bash script. Transfer to Boulder only took place after re-initiation at 23:58z.
- 4/16: Transfer completed at 19:25z.
- 4/17: Transfer completed at 12:05z.

MWR:
- HATPRO removed for repairs.

SODAR:
- Operating normally.

POSS:
- Operating normally.
- 4/13: At 13:39z, posacq was closed. At the external power pole, POSS was powered down for one minute, then reconnected to power and posacq restarted at 13:50z.
- 4/14: Matt requested information about the POSS support elements, and the POSS was excavated to gather details. This opportunity was taken to raise the POSS (completed 17:54z).

MMCR:
- Operating normally.
- Measurements of roll, pitch and outdoor temperature appear erroneous.
- 4/12: Labview reports out-of-spec voltage (4.4 V) on the Interface +5 V bus.
- 4/16: A discrepancy has been identified (12:51z): the out-of-spec voltage value continues to appear in LabView, while the voltage read on the Interface test points are within spec.

CAPABL:
- Operating normally.
- 4/15: Service equipment identified in MSF.

MPL:
- Operating normally.

VCEIL:
- Operating normally.

Hotplate:
- Operating normally.

IceCAM:
- Operating normally.

PAERI:
- Operating normally.
- 4/13: Scene mirror cleaned 11:53z due to SW and LW Responsivity yellow flags. Repeat cleanings at 13:43z, and 14:04z, after installation of replacement fan.
- 4/13: PAERI shelter fan discovered seized at 11:57z and removed for indoor replacement. Fan

7 was removed and disassembled for inspection and testing. Fan 1, which in the previous phase had been removed after 1 day of operation due to a ticking noise, was disassembled. The bearing seats were cleaned, and the fan was mounted and tested for 40 minutes inside. No ticking or irregularities were detected. Fan 1 was then reinstalled on the PAERI shelter at 14:01z.
- 4/13: Round of inventory and maintenance on PAERI fans. All used fans were disassembled, inspected, cleaned, bearings swapped if needed, reassembled and tested alongside a new fan. An outlet plug was installed on one new fan as a ready-to-swap unit. Logs were updated.
- 4/16: The PAERI scene mirror was cleaned at 18:27z, due to the presence of yellow SW / LW responsivity flags.

TSI:
- Stored in MSF and awaiting warmer temperatures for redeployment.

IcePIC:
- 4/11: Slides placed for collection from 13:15z to 14:12z. Hexagonal plates, triangular forms, and rimed building hoar collected. Some interesting depositional growth patterns around crystals.

Radiosonde:
- Twice daily soundings.
- 4/11 0z: Sounding showed data spikes and dropouts, and automatically terminated early (461.1 hPa). These issues self-resolved above 333.1 hPa, and data with normal appearance were collected up to 23.3 hPa.
- 4/16 12z: Humidity sensor failed after sonde checkout.

MASC:
- Operating normally.
- 4/11: 'Startup disk has no more space' errors continue to be displayed on MASC laptop.
- 4/11: As of 12:40z, the MASC remote desktop connection is very sluggish, and reporting Firewire BUS resets.
- 4/11 and 4/15: Errors related to MASC disk space appeared during ICECAPS data uploads. In both instances, Marty responded by deleting files from the MASC computer.
- 4/15: A hard reset of the MASC was performed at 19:25z.