

WVIOP 2000 Status: Tuesday, 26 September

The second round of LN2 calibration verifications were performed on the two MWRs, the JPL J-unit, and the CSR in the morning, using the same Radiometrics blackbody (styrofoam shell shortened about 1.5" to allow use on CSR). Quicklook data from the MWRs showed excellent consistency at 0.4 K less than the expected 79.27 K for 23.8 Ghz. The 31.4 GHz channels differed by about 0.4 K and were also colder than expected (CF, 78.53 K; Spare 78.93 K). As a diagnostic, the window of the CF MWR was also changed during a completely clear period in early afternoon. During the science meeting, Jim Eiler explained the processing used for the NASA Ames Sun Photometer (AATS-6). The CARL recorded strong stratification overnight. The SRL team discovered a problem with fluorescence arising from viewing through their new window that is especially significant for upper altitudes (over 4 km). Future IOP observations will be made with the scanning mirror outside trailer as in the past.

Weather: Very clear and dry, with light southerly winds all day. Smoke in the boundary layer moved in from the south in the afternoon.

| INSTRUMENT | STATUS/COMMENTS |
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| <u>Microwave</u> | |
| CART CF (23.80/31.4 GHz) | Restarted about 8:30 AM CDT just prior to LN2 tests. Window changed by site personnel early afternoon under very clear skies, with spare unit running continuously. Continued running thereafter. |
| CART Spare (23.80/31.4 GHz) | Found unit (#33) had stopped just as LN2 calibration was started. To allow stabilization we moved to the J-unit and returned to the Spare after doing CF MWR (#10). It stopped again at 1539 with video screen indicating run-time error (MATH, asin DOMAIN error). Restarted at 1554 UTC |
| NOAA-CSR (20.6/31.65 GHz) | Ran all night. LN2 calibration performed with Radiometrics blackbody. Processing is still being hindered by a problem relating scan angle and data sampling times |
| NOAA-PSR (18/21, 10,37, 89 GHz with polarization) | Ran all night |
| U of L'Aquila, Italy (23.8, 31.6, 53.5, 55.5, 58.0 GHz) | Operated normally, but adequate temperature stability is still questionable. Frequent Tip Calibrations have not been performed and will be needed |
| JPL J-Unit (20.7, 22.2, 31.4 GHz) | Operating continuously in Tip Calibration mode |

Lidar

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| CART Raman WV (CARL) | Operating Continuously |
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| NASA, Scanning Raman WV (SRL) | Operated in automatic scanning mode, with alignment optimized for the vertical. The aerosol channel showed smoke from the afternoon. |
| Max Planck Inst DIAL WV | The lidar works, and the EMI source was identified and removed. Good data was obtained for one hour last night (10:30-11:30 PM CDT). Other problems are being worked. |
| NASA HARLIE, cloud lidar | Operated. Resolved minor problem with high altitude (15 km) observations. Observed high thick aerosol layer yesterday and an afternoon smoke event today. |
| CART MPL, cloud lidar | Operational |

BBSS (CART)

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| Central Facility, Digi-CORA | Dual, 3-hourly mode |
| #2, PC-CORA | Dual, 3-hourly mode |

BBSS Launch Site Refs.

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| THWAPS | Operational. |
| Chilled Mirror | Operational |

Tower In Situ Sensors

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| CART 60m HMP 35 South,10x | Operational |
| CART 60m HMP 35 North | Operational |
| CART 25m HMP 35 South,10x | Operational |
| CART 25m HMP 35 North | Operational |
| Chilled mirror 60m | Operational, except data link |
| OK MESONET 60m | Operational, except data link |
| Chilled mirror 25m | Newly installed and Operational, except data link |
| OK MESONET 25m | Newly installed and Operational, except data link |
| SMOS (CART) | Operational |

DataPlane

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| T, RH, P – tower to 1 km | Progress, but control problems not yet fixed |
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AERI

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| CART (AERI-01) | Operational |
| Prototype (AERI-00) | Operated several hours day and night. |

GPS

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| Central Facility | Operating normally, expect data this week |
| Lamont NOAA | Operational |

Sun Photometer/Spectrometer

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| MFRSR N1(CART) | Operational |
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| MFRSR/RSS (Albany) | Operational |
| Cimel Sunphotometer | Operational |
| NASA AATS-6 channel | Operated all day |

Proteus Aircraft

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| <u>NAST-I</u> | Flights expected to start October 1 |
| <u>NAST-M</u> | Flights expected to start October 1 |
| <u>FIRSC</u> | Not expected to fly |

Hank Revercomb, University of Wisconsin, IOP Chief Scientist.