

WVIOP 2000 Status: Tuesday, 03 October

Science Discussions

.Frank Gallagher and Dan Weber discussed the Data plane platform, electronics, and instrumentation. A standard Vaisala radiosonde package is mounted inside the fuselage of the aircraft. The plane easily achieves 900 mb (1 km) altitudes and can sound the atmosphere for 1/2 hour before fueling is required. The plane flew this morning to capture the nocturnal temperature inversion dissipate. Gary Schwemmer presented information on the HARLIE lidar system. GSFC SRL is showing good daytime results compared to radiosonde data. DIAL lidar data looks very encouraging also. A water vapor cross section of moisture from 17 - 05 UTC yesterday indicated very similar feature with both Raman Lidar systems. Ed Westwater presented more instantaneous MWR tip calibration data. This calibration technique will be applied to the central and spare MWR to try to improve agreement between brightness temperature channels. The central facility MWR is hanging up frequently due to software and data line problems. Blackbody calibrations on the MWR systems (central, spare, JPL, Italian, and ETL) are being done daily.

Weather

Clear, hot, and windy, smoke aerosol noted in boundary layer.

INSTRUMENT	STATUS/COMMENTS
<u>Microwave</u>	
CART CF (23.80/31.4 GHz)	No data between 22-00 UTC (hung up)
CART Spare (23.80/31.4 GHz)	OK
NOAA-CSR (20.6/31.65 GHz)	Down three hours during the night, problem with time sync
NOAA-PSR (18/21, 10,37, 89 GHz with polarization)	OK
U of L'Aquila, Italy (23.8, 31.6, 53.5, 55.5, 58.0 GHz)	OK
JPL J-Unit (20.7, 22.2, 31.4 GHz)	OK
<u>Lidar</u>	
CART Raman WV (CARL)	OK
NASA, Scanning Raman WV (SRL)	OK, Running in 10 second collection mode
Max Planck Inst DIAL WV	OK. Good data yesterday afternoon
NASA HARLIE, cloud lidar	OK (Noon - 2 am local)
CART MPL, cloud lidar	OK

BBSS (CART)

Central Facility, Digi-CORA	OK, experiencing interference so losing some of the dual sonde launches
#2, PC-CORA	OK, experiencing interference so losing some of the dual sonde launches

BBSS Launch Site Refs.

THWAPS	OK
Chilled Mirror	OK

Tower In Situ Sensors

CART 60m HMP 35 South,10x	OK
CART 60m HMP 35 North	OK
CART 25m HMP 35 South,10x	OK
CART 25m HMP 35 North	OK
Chilled mirror 60m	Down from 00 - 18 UTC (rebooted and fine now)
OK MESONET 60m	OK
Chilled mirror 25m	Down from 00-18 UTC (rebooted and fine now)
OK MESONET 25m	OK
<u>SMOS (CART)</u>	OK

DataPlane

T, RH, P – tower to 1 km	Operated to 900mb this morning, 8-10 am local, plane broke in half due to strong wind gust at takeoff however good data collected on all previous flights, flight hours are now exhausted
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AERI

CART (AERI-01)	OK
Prototype (AERI-00)	Not operating

GPS

<u>Central Facility</u>	OK
<u>Lamont NOAA</u>	OK

Sun Photometer/Spectrometer

MFRSR N1(CART)	OK
MFRSR/RSS (Albany)	OK
Cimel Sunphotometer	OK
NASA AATS-6 channel	OK

Proteus Aircraft

Flew from 1510 UTC - ~2210 UTC

<u>NAST-I</u>	OK
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<u>NAST-M</u>	OK
<u>FIRSC</u>	Not expected to fly

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