

WVIOP 2000 Status: Thursday, 21 September

Microwave LN2 Calibration verification was performed on all instruments (except MWR spare) in the morning. Conditions were good, with light winds, low moisture, and clear skies. The first DataPlane flight was attempted in the afternoon. Radio control problems were encountered before takeoff that affected both available planes. Testing is ongoing to determine the source of noise in the control signal. The problem had not been encountered in the previous test flight at the site or on the earlier Norman test flight today. The first Raman intercomparison of the IOP from nighttime data showed good sensitivity for both instruments, but a significant mixing ratio difference, with the SRL profile being dryer. We need to review the current calibration assumptions for each. Although both basically rest on microwave, the specific data used and update assumptions need to be clarified. For the dual launches, a procedure to log the time for the operator recorded ground sample was initiated.

Weather: Very clear all day. Low winds AM for start of LN2 work--southerly winds built to moderate levels. Moisture amounts started out low (near 1 cm) and increased to over 3 cm.

INSTRUMENT	STATUS/COMMENTS
<u>Microwave</u>	
CART CF (23.80/31.4 GHz)	Continuous operation interrupted in the morning for LN2 calibration verification test
CART Spare (23.80/31.4 GHz)	Operating continuously in normal mode
NOAA-CSR (20.6/31.65 GHz)	Operating successfully-- interrupted around noon for LN2 calibration verification test
NOAA-PSR (18/21, 10,37, 89 GHz with polarization)	Operating successfully-- interrupted around noon for LN2 calibration verification test
U of L'Aquila, Italy (23.8, 31.6, 53.5, 55.5, 58.0 GHz)	Operating successfully-- interrupted early afternoon for LN2 calibration verification test
JPL J-Unit (20.7, 22.2, 31.4 GHz)	Continuous operation interrupted in the morning for LN2 calibration verification test
<u>Lidar</u>	
CART Raman WV (CARL)	Continuous operation--good energy
NASA, Scanning Raman WV (SRL)	Operated successfully, but still working on alignment for scanning.
Max Planck Inst DIAL WV	Laser power supply failure--replacement located--Saturday arrival expected--other parts of system are okay
NASA HARLIE, cloud lidar	Operated normally
CART MPL, cloud lidar	Operational

BBSS (CART)

Central Facility, Digi-CORA	Dual, 3-hourly mode. RS 90s worked well in four launches--suspect procedural errors responsible for previous failures. Started logging time of prelaunch data point as a time reference for when the sondes are about to be removed from the "mailbox" ventilator
#2, PC-CORA	Dual, 3-hourly mode

BBSS Launch Site Refs.

THWAPS	Operational
Chilled Mirror	Operational

Tower In Situ Sensors

CART 60m HMP 35 South, 10x	Data still bad—looking for cause
CART 60m HMP 35 North	Operational
CART 25m HMP 35 South, 10x	Data still bad—looking for cause
CART 25m HMP 35 North	Operational
Chilled mirror 60m	Operational, except data link (data downloaded 9/20)
OK MESONET 60m	Operational, except data link (data downloaded 9/20)
Chilled mirror 25m	Operational, except data link (data downloaded 9/20)
OK MESONET 25m	Operational, except data link (data downloaded 9/20)
SMOS (CART)	Operational

DataPlane

T, RH, P – tower to 1 km	First attempt started 3:00 P CDT--Thwarted by control instability--cause under investigation
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AERI

CART (AERI-01)	Operational
Prototype (AERI-00)	Operated during IOP prime hours.

GPS

Central Facility	Operating, data access issue still unresolved
Lamont NOAA	Operational

Sun Photometer/Spectrometer

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

Proteus Aircraft

NAST-I	Flights expected to start early October
NAST-M	Flights expected to start early October
FIRSC	Flights expected to start early October

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