

PMD-PMD

On-time takeoff 14:36:08

Landing 00:53:15

Mission as planned with minor mods. Slight detour to avoid convection at 13N. First dip started on southbound leg. First low leg 10 minutes for AMP pressure controller adjustment.

Cloudy layer at top of BL in dips 1-3. Clear above on dip 4. Lots of polluted air in free trop and BL south of ITCZ. Consistent with GEOS-5 model prediction of outflow from South America (Brazil). BL Ozone ~12 ppb south of ITCZ and 20 ppb north. CO2 low in BL, CH4 high, consistent with continental outflow. Zero BC above ITCZ cloud tops. Lots of new particle formation indicated by AMP. Possible 20 ppt N2O5 in BL south of ITCZ. Needs primary source to sustain in warm, low NOx environment. Possible 1-2 ppt CL2 in BL south of ITCZ. Several indicators of BB (HCN) in BL south of ITCZ.

### **Debrief**

NOy lost ozone generator. Need to replace. Good.

DLH Pretty good. Lost 10 minutes de to comp glitch.

Picarro

QCLS Excellent

SAGA Good

Panther Pretty good. Lost 30 min UCATS in beginning.

AO2 Good. Fixed leak.

GT-CIMS Good

NOAA CIMS good

WAS good

MMS good

TOGA good

AMP good. Successfully optimized Pcontroller.

CAPS good

PALMS Good. Lost 45 min due to clog mid-flight.

ATHOS good

ISAF Good

SP2 Good

HRAMS Good

CITCIMS Good