HKO-NAN

On-time takeoff 20:01:38
Landing 05:12:46

CO BB 125 on ascent and at altitude as predicted. Max CO 155 ppbv on descent as predicted. Almost 100 ppbv O3. Hit 99 ppbv O3 at 25+ kft. On second climb. All BB VOCS, HCN, and NCO elevated. Particles and BC, too
129 ppbv o3 at 21 kft on 2nd dip down. 3rd high leg skims the tropopause. See lots of N2O-O3 anticorrelation. Short little blips, though – 30 s or so each.
4th high leg see BB CO an O3 and HCN. High CO not predicted in model. Convection? TOGA say 4-7 days. HCHO low, likely aged air from Australia. Extra time on southbound leg after Chathm islands. Add partial dip to 20 kft. Remain low at 56 S for 15 minutes total at 500, 1000, and 1500 ft.
Pollution at high altitude persists to 53S. QCLS sees 20 pb CO. Lowest CO observed in Atom. Ironic that it is found near all the CO pollution.

Clouds at TCCON site prevent lower than 9000 ft.. TCCON hopeful that they can patch together with sonde and ground measurement. Sonde launched just after DC8 flyover. Rainy at Christchurch.

Debrief

Takeoff temperatures were hot but better than KONA. PANTHER/UCATS new air duct works well.

NOy good

DLH good

Picarro good

QCLS good.

SAGA good

Panther good.

AO2 good

GT-CIMS good

NOAA CIMS good.

WAS good

MMS good

TOGA

AMP Good.

CAPS

PALMS Good

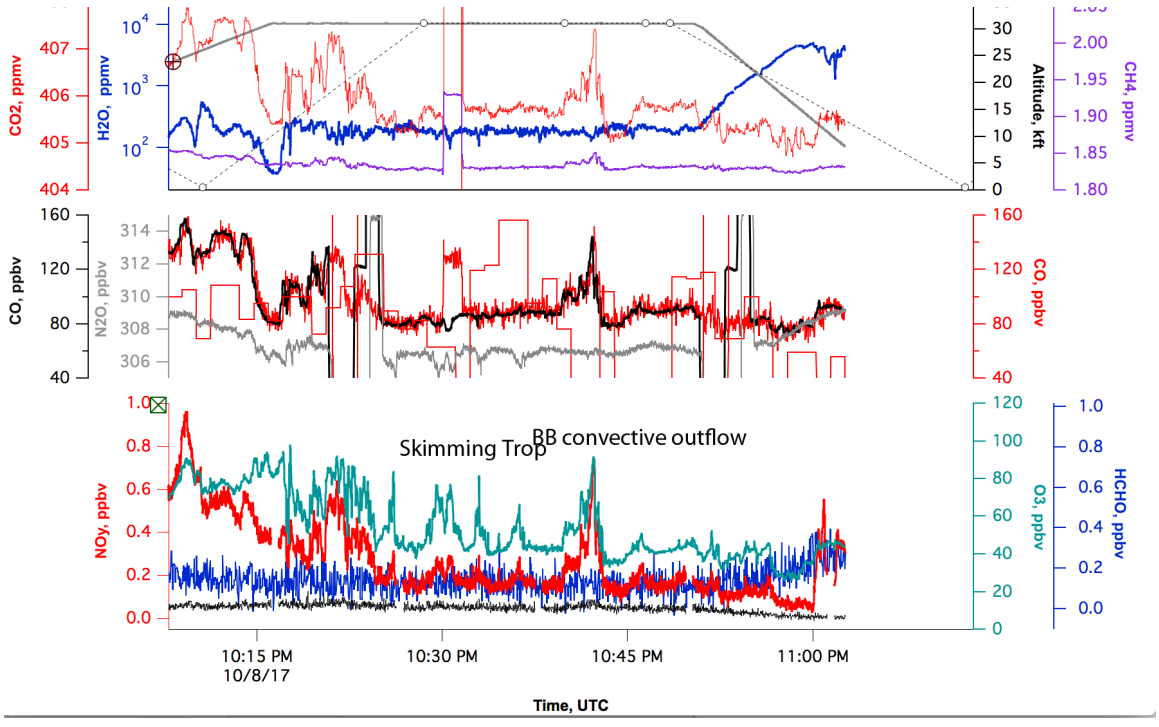
ATHOS Usin vacuum pump without blower. Reduced sensitivity (higher sample pressure, more quenching, less fluourescence). Parts expected in Punta.

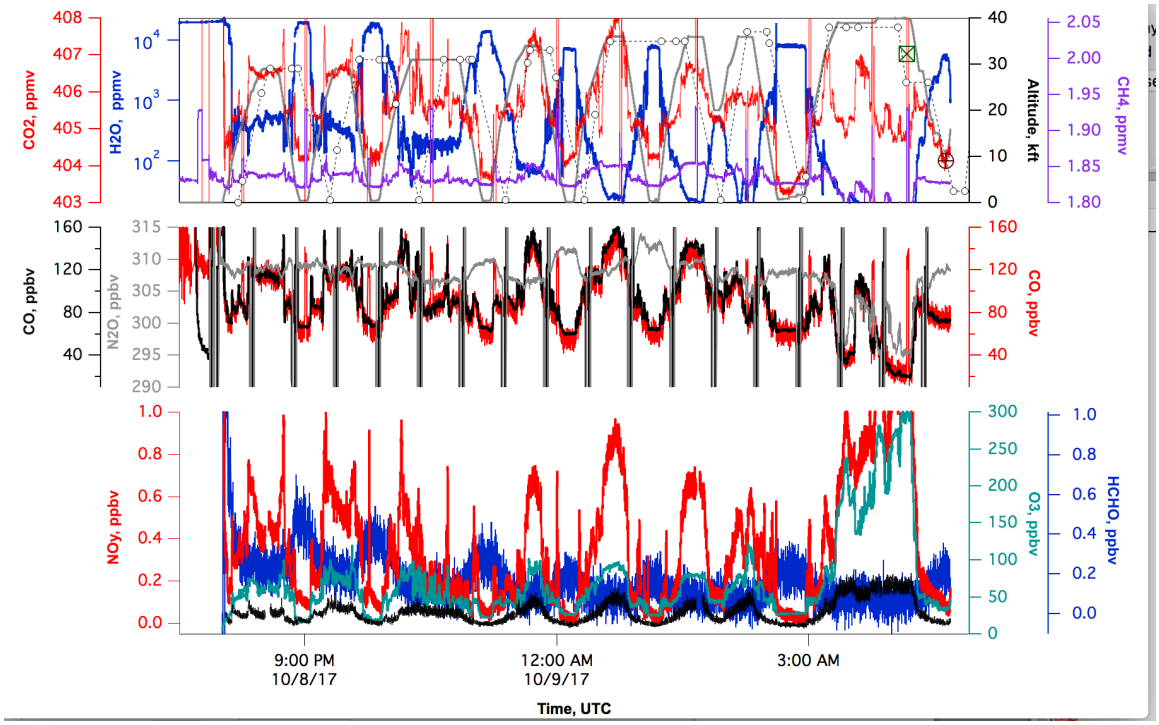
ISAF Good

SP2 Good.

HRAMS Good

CITCIMS good




CO2, ppmv
H2O, ppmv
Altitude, kft
CH4, ppmv
CO, ppbv
N2O, ppbv
CO, ppbv
NOy, ppbv
O3, ppbv
HCHO, ppbv
9:00 PM
10/8/17
12:00 AM
10/9/17
3:00 AM
Time, UTC