ANC-HKO

On-time takeoff 17:59:05
Landing 01:23:21

Rain at takeoff. PALMS working well. Cloudy all the way up. Encounter stratosphere 225 ppb O3 and 45 ppb CO on ascent. Above clouds at 33 kft enroute to Cold Bay. Moderate turbulence. Cloudy on descent. NOAA-CIMS had exhaust port freeze/ice over at ascent. Melts on descent into Cold Bay.
A couple of encounters with pollution plumes at 20 kft, otherwise air seems pretty uniform. There is a distinct difference in the mid-lat and tropical HCHO. The ML has the dog-dish and the T is peaked at the low-point. Source of HCHO in ocean vs transport?
Flux leg moved to fourth dip to access higher BL. Cloud top on descent at 4100 ft. BL height (based on temp inversion) 3700 ft. Three legs. Adjust alt to fit within BL. 500, 1500, 2500 ft. Maybe anticorrelation between H2O and O3 – exchange w/Free trop? Clear increase in O3 w/PALT in BL. Indicative of surface exchange and/or FT mixing.
So2 and other S species on approach into HKO.

Debrief

NOy good

DLH good

Picarro good

QCLS good

SAGA good

Panther good

AO2 good

GT-CIMS good

NOAA CIMS good. Lost 20-30 minutes due to exhaust icing. Solution: drain before takeoff.

WAS good

MMS good

TOGA good. Network, IP to fix. Solution: Get DVG on it.

AMP Good

CAPS Good, but need to optimize mirrors for imaging. Solution: clean miroors

PALMS Cabin leak. Lost first half-hour. Solved in flight.

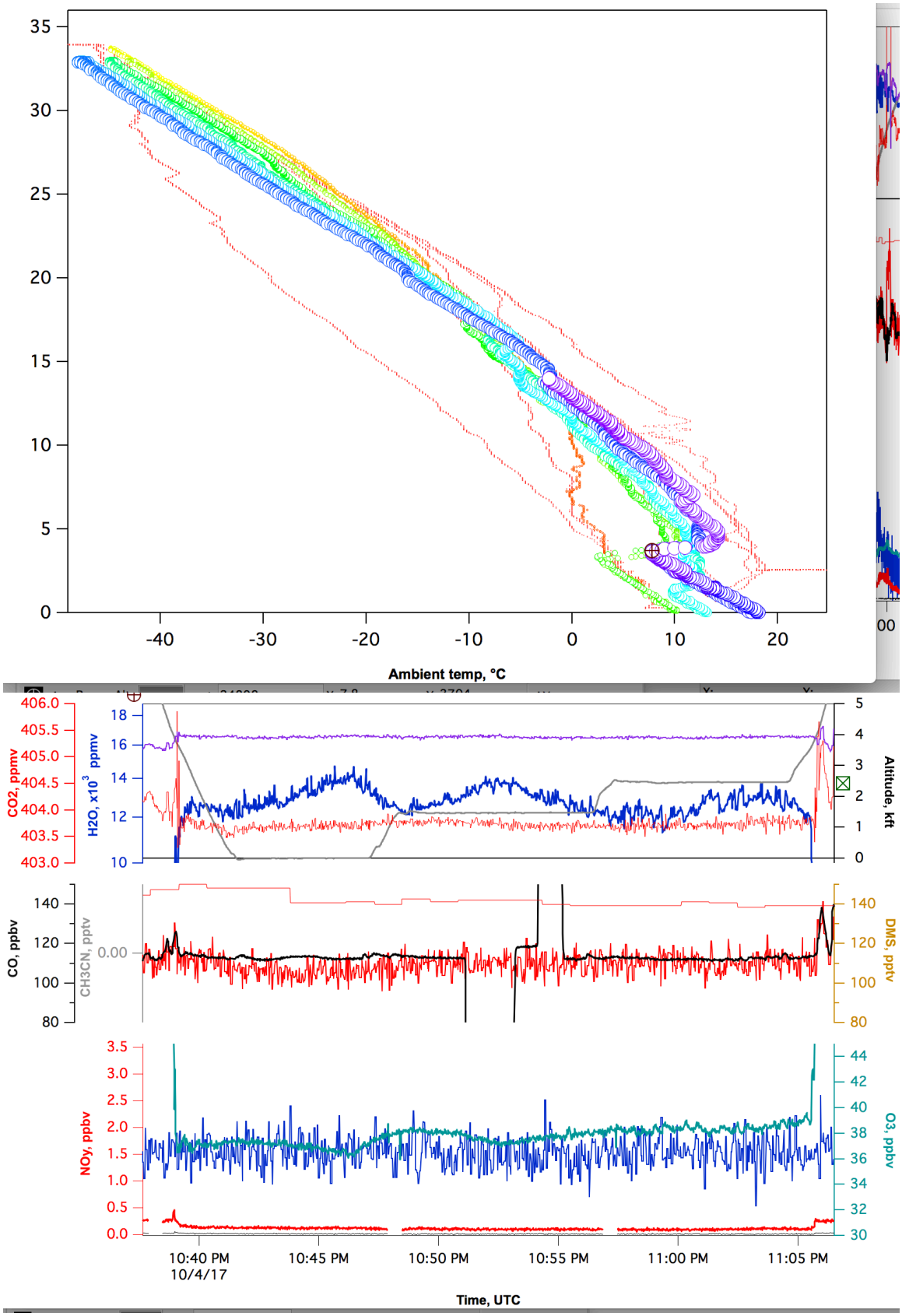
ATHOS good

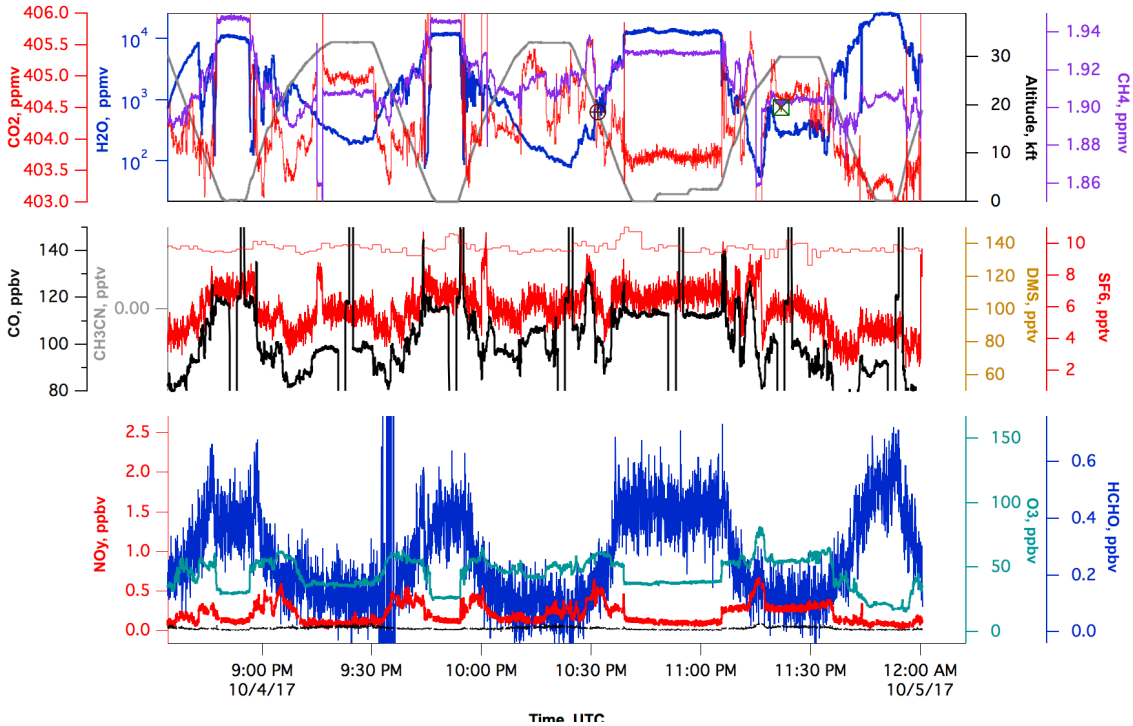
ISAF Good

SP2 Good

HRAMS Good

CITCIMS good


Ambient temp, °C
CO2, ppmv
H2O, x10^3 ppmv
Altitude, kft
CO, ppbv
CH3CN, pptv
DMS, pptv
NOy, ppbv
O3, ppbv
10:40 PM
10/4/17
10:45 PM
10:50 PM
10:55 PM
11:00 PM
11:05 PM
Time, UTC


406.0
405.5
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403.5
403.0
CO2, ppmv
H2O, ppmv
Altitude, kft
CH4, ppmv
1.94
1.92
1.90
1.88
1.86
CO, ppbv
CH3CN, pptv
0.00
DMS, pptv
SF6, pptv
NOy, ppbv
O3, ppbv
HCHO, ppbv
9:00 PM
10/4/17
9:30 PM
10:00 PM
10:30 PM
11:00 PM
11:30 PM
12:00 AM
10/5/17
Time, UTC