

20060604

Fagerstrom, Snider, French, Rahn

Synopsis – coordination with ASTER. The overpass is SW of Arcata (over ocean). Snider (second-seat) is suffering from a head cold.

1755 – Engine run up. The Gast pump is off, UFCPC -11 cm<sup>-3</sup>, CPC -2 cm<sup>-3</sup>

1758 – SW bound from Arcata airport

1805 – Aerosol layer observed during climb out, PCASP is greater than 100 cm<sup>-3</sup>, values as large as 300 cm<sup>-3</sup>

1812 – no more haze layer ahead of us now, still tracking SW

1820 to 1828 – UFCPC enhancement is observed

1844 – UFCPC enhancement decreasing

1847 – recently crossed into the ASTER region, starting spiral descent into a hole in the cloud field. The UFCPC, and CPC, increased soon after start of the spiral descent.

Concluded that this increase was not associated with sampling; probably be due to the vertical and horizontal layering of the aerosol field.

1904 – PCASP concentrations decreased near cloud top, at about 2200 ft, cloud base near 900 ft

1911 – start of zig-zag

1916 – zig-zag ascent/descent rates at 500 ft/min

1916 – mark pointer

1937 – in-cloud pass

1942 – passing the pointer point, CCN being set for the pending below-cloud pass 0.4, 0.8, 1.6%

1944 – descending for sub-cloud pass

1950 – taking pictures, at 500 ft agl, ppt

1953 – ppt on wind shield, no apparent effect on CPC signal, FLWC was flat-lined

Seastate – few white caps

2000 – ascent out of MBL, PCASP down to ~5 cm<sup>-3</sup>, CPC and UFCPC enhanced near MBL/FT interface

2004 – S=1.6%

2008 – PCASP enhancement; can see haze layer to the NE now that we are headed for Medford OR

2002 – PCASP is variable, 200 to 50 cm<sup>-3</sup>, CPC and UFCPC are constant. This is interesting, could we be in a region that the haze aerosol is mixing across?

2039 – Crossing coast, UFCPC increasing

2049 – PCASP increasing, then decreasing as we descend into Medford

2101 - Landing