

Submitted are:

1. Data sets for the following instruments:

Differential Mobility Analyzer (DMA), files 'RF*_2007*T*_DMA_v1.txt';
Long Differential Mobility Analyzer(LDMA), files RF*_2007*T*_LDMA_v1.txt';
Optical Particle Counter (OPC), files 'RF*_2007*T*_OPC_v1.txt';
Aerodynamic Particle Sizer (APS1 and APS2), files 'RF*_2007*T*_APS_v1.txt';
TSI 3563 nephelometer, files 'RF*_2007*T*_SCAT_v1.txt';
TSI Condensation Particle Counters (CPC models 3025 and 3010), files
'RF*_2007*T*_CN_v1.txt'.

The detailed data info can be found in headers.

2. The list of time intervals of SO₂ plumes (airplane exhaust or volcanic) (file 'SO2plumes.xls'), all for horizontal legs ONLY.

The "plume" time intervals were selected empirically, using fast (25 Hz) SO₂, ColdCN and HotCN data, flight reports.

The "plumes" included:

- a) very of high SO₂ and CN values due to volcanic influence (ferry flights to and from Hawaii);
- b) sharp SO₂, CN spikes due to airplane exhaust crossing;
- c) broader time intervals with noisy CN and SO₂, less pronouncedly increased, due to old exhaust crossing;
- d) "forest" of multiple spikes due to Lagrangian circle pattern of the C-130.

"Plumes" data have NOT been removed from the submission files.

3. The list of time intervals of cloud droplets shatter (file 'Cloudflags.xls'). The droplets shatter time intervals were selected empirically, using LWC (liquid water content) measurements, log book records, and Nephelometer/HotCN data (sharp peaks). "Droplet shatter" data were EXCLUDED from submission.

4. Size distribution integrals are presented for the following diameter ranges (um) and time resolution (sec):

Instrument	Dmin	Dmax	Dsub/coarse	Delta t
OPC	0.15	3	0.75um	3
DMA	0.02	0.15	-	~85
LDMA	0.02	0.5	-	~85
APS	0.72	20	-	15

5. For FF04 (09/08) only CN data are submitted (inlet problems for other instruments).