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Preliminary bulk fluxes from the 2003 NOAA CLIVAR/Ocean Climate Observations

Readme for *etl_aerosol_weller03.txt*

The data file *etl_aerosol_weller03.txt* contains measurements of atmospheric aerosol counts. The instrument used is a Particle Measurement Systems (PMS) Lasair-II aerosol spectrometer. The Lasair-II draws air through an intake and uses scatter of laser light from individual particles to determine the size. Particles are counted in six size bins: 0.1-0.2, 0.2-0.3, 0.3-0.5, 0.5-1, 1-5, and greater than 5.0 μm diameter. The ETL system was mounted in the seatainer on the 02 deck with the intake on the upwind side of the container. The system ran at 1.0 cfm (0.028 m³/min) sample volume flow rate with a count deconcentrator that reduces the counts a factor of 10 (to prevent coincidence errors).

The file contains aerosol counts accumulate in one minute samples. The aerosol concentration is related to the counts obtained in 1-min by

$$C = \text{Counts}/(0.028*1e6)*10 \quad (\#/\text{cm}^3)$$

The columns in the file are:

1	Excel day number
2	Time (fraction of day)
3	Total counts
4	Size of channel 0 (0.1 – 0.2 micron)
5	Counts in channel 0
6	Size of channel 1 (0.2 – 0.3 micron)
7	Counts in channel 1
8	Size of channel 2 (0.3 – 0.5 micron)
9	Counts in channel 2
10	Size of channel 3 (0.5 – 1 micron)
11	Counts in channel 3
12	Size of channel 4 (1 – 5 micron)
13	Counts in channel 4
14	Size of channel 5 (5 – up micron)
15	Counts in channel 5