

Aerosol profiles from a balloon flight from Teresina, Brazil, (4.0°S, 42.9°W) on 30 May 2008 (07:30-09:50 LT). The measurements included condensation nuclei (CN), aerosol between 0.15 and 10.0 μm in radius in 12 sizes, ozone, and pressure/temperature. The aerosol instruments are built by the University of Wyoming, the ozone sensor is an ENSCI electrochemical concentration cell using 0.5% KI, and the pressure/temperature sensor is from Vaisala.

The instruments were flown on the opening flight of the CNES balloon campaign from Teresina.

There are 3 figures shown:

- 1) ascent and descent aerosol concentration profiles vs altitude,
- 2) ascent and descent aerosol mixing ratio profile vs potential temperature
- 3) comparison of the ascent descent profiles for CN and for four channels of the aerosol counter, 0.15, 0.25, 0.50, 1.08 μm .

The CN instrument is saturated in the troposphere when concentrations are above $\sim 500 \text{ cm}^{-3}$, thus the constant value at over 100 cm^{-3} . This occurs because, to limit gondola size and weight, the dilution valve, normally used in Laramie, is not included.





