

8) POSTER

OZONE AND AEROSOLS CONCENTRATIONS MEASURED FROM A TETHERED BALLOON AT DIFERENTS HEIGHTS IN BALBINA - AMAZON REGION

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The biogenetic VOCs emissions and its photochemistry in the Amazon region are responsible for the ozone produced in this region. The budget of the ozone production is important to atmospheric chemistry study. This data is important also to feed computer-modeling systems aiming atmospheric chemistry studies. The measurement of the ozone and particulate aerosols concentrations relative to with height is one of the aims of the atmospheric chemistry study. The scope of this work is to describe the experience done in Balbina, Amazon region, in a wet season, with a tethered balloon carrying on a set of instruments that measure the ozone concentration and the aerosols, fine and gross particulated matter. An electronic device collects the pressure, humidity and temperature data of each flight. The meteorology airborne, such as wind direction and speed, clouds interference and sun incidence, was monitored during each flight to observe the correlation with the data collected. The data shows a correlation between the aerosols and the heights, aerosols and the cloud interference, ozone concentration and heights, ozone concentrations and cloud interference. The ozone concentration range from 5 to 18 ppb was measured at maximum height. The experiment was done with a Helium tethered balloon driven by a winch. The maximum flight height was 1000 meters. Details of the experiment and analytical procedures are presented in this work as well.