

**RADON MEASUREMENTS IN THE AMAZON REGION
(GTE-ABLE2B, APRIL-MAY, 1987)**

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ABSTRACT

Radon 222 was measured in the Amazon Basin troposphere during the wet season (April-May 1987) within the GTE/ABLE 2B Experiment (Global Tropospheric Experiment - Amazon Boundary Layer Experiment 2B, collaboration between NASA/USA and INPE/BRAZIL). An airborne radon meter using ^{218}Po electrostatic precipitation and alpha-ray spectrometry performed continuous measurements during the flights of the NASA Electra Aircraft #429. All radon concentrations were found to be very low (≈ 17 pCi/m) in regard to the current values found in the literature for other continental regions of the world. Vertical radon concentration profiles up to 4 km were obtained in the central Brazilian Amazon Basin. These profiles showed only a small decrease with height, which is consistent with the strong vertical mixing processes operating during the wet season. Between Belém and Manaus, the radon distribution at two different altitudes have shown several different patterns related to the horizontal and vertical movements of masses of air and to the meteorological situation during the mission and the preceding days.