MODELLING OF THE ATMOSPHERIC TRANSPORT OF SPECIES EMITTED BY CONTROLLED BURNINGS IN AMAZÔNIA

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Abstract

A coupled numerical Transport-Eta Mesoscale model was used for the determination of the transport of CO₂ from a slashed Terra Firme Amazonian forest controlled burning with an area of 9 ha, effected on August 31, 1998 in the region of Alta Floresta, MT, with an emission of 2052 Mg CO₂ during 144 min. The path of the resulting CO₂ plume was computed for 78 hours, and reached the coast of Santa Catarina as a compact mass. Its concentration, following the wind, was modified by mesoscale diffusion, with values that agreed well with the ones obtained through Taylor's similarity theory. The results of the same numerical experiments for others dates will be presented.