

### 35) POSTER

#### THE CONVECTIVE BOUNDARY LAYER OVER PASTURE AND FOREST IN AMAZONIA

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**Abstract:** The Amazon region is suffering from a high rate of deforestation, with the tropical forest initially being replaced by pasture and agricultural crops. The coupling between different types of surface (tropical forest or grass) and the Convective Boundary Layer (CBL) has been investigated using observational (rawinsoundings) data collected over Rondônia in the southwest Amazonia. The data reported here support the notion that deforestation may modify the dynamics of the boundary layer, in particular during the dry season. In this period the sensible heat fluxes are very high over pasture, creating a CBL around 550 m deeper compared to that over the forest. The height of the fully developed CBL for pasture has been computed to be 1650m compared to around 1100 m for forest. During the wet season the height of CBL is lower than during the dry season and it has the same height (around 1000 m) for forest and pasture sites. The CBL over pasture is hotter and drier than over forest during the dry season, but during the wet season the air temperatures and humidities fields are similar. Comparing the CBL growth during the dry and wet season, there is evidence that the CBL properties over the forest are not dependent on the surface characteristics, but the pasture CBL are.