

## **The Convective Boundary Layer Over Pasture In Amazonia During the LBA Dry-to-Wet Experiment 2002**

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The coupling between a typical ranchland and the Convective Boundary Layer (CBL) has been investigated using radiosoundings at 8, 11, 14 and 17 Local Time (- 4 hours from GMT), as a part of LBA/DRY-TO-WET 2002 experiment. The field campaign held from Sept 15 up to Oct 30, 2002, extending from the end of the dry season (Sept) to the onset of the wet period (Oct). The profiles of potential temperature and specific humidity have been used to compute the mean properties of the CBL, as well as the height of the CBL. The CBL height varied from a typical value around 2000-2200 m during the end of the dry season (Sept 18-20,2002) to a figure around 1600-1800 m in the beginning of the wet period (20-28,Oct). The potential temperature and humidity profiles did not changed remarkable during this period, oscillating from 307 - 308 K and 12 - 14 g/kg. During the beginning of the wet season, some local showers have occurred and produced a remarkable change in the structure of the CBL. Some events have been analyzed. For instance, on Sept 28,2002, the height of the CBL was around 1400-1500 m at 14 LT with a average potential temperature ( $\theta$ ) around 306 K and specific humidity ( $q$ ) of 13.5 g/kg. After a very strong rainfall (38 mm/3 hours) at afternoon, the CBL has been destroyed (height around 500 m) with  $\theta$  of 300 K and  $q$  around 15-16 g/kg. There was also a nocturnal jet case (night from Sept 23-24) with strong wind of 11 m/s at 500 m. This strong windshear created an unexpected shallow mixed layer (height of 400 m) during the night instead of the nocturnal/stable pattern. This data-set will provide opportunity for modeling studies of the growing of the CBL and coupling with aerosols and/or clouds.

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