Geophysical Research Abstracts,
Vol. 10, EGU2008-A-07426, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-07426
EGU General Assembly 2008

Inter-connection of surface and aloft jets on the West African Monsoon dynamics: a case study

M. C. R. Kalapureddy, F. Lohou, B. Campistron

Laboratoire d'Aérologie, UMR CNRS/UPS 5560, Observatoire Midi-Pyrénées, France (kalmc@aero.obs-mip.fr / FAX: +33 562406101 / Phone: +33 562406105).

Dynamics of the West African Monsoon (WAM) is complex in general over the large-scale and in particular over the local-scale the surface component plays significant role in interacting with the large-scale dynamical featues of the WAM. The mutual role of the surface and aloft atmospheric jets such as Low Level Jet (LLJ) and African Easterly Jet (AEJ) and their impact on the WAM is vital in understanding the overall dynamics of WAM. High temporal and height resolution observations of Wind Profilers (UHF/VHF) and other complementary data sets collected during AMMA-2006 has been utilized to understand the mutual role of surface and aloft jets. This study highlights the conspicuous dynamical features observed during wet and dry season mainly over Djougou (Benin) from surface upto 6 km. From the initial results, it has found that near surface westerlies and elevated easterlies of the AEJ are influenced significently by the surface or otherway mutually and show correlation with the WAM activity. This work is in progress and the complete outcome in due course will be discussed in the forthcomming EGU-2008 conference.