Geophysical Research Abstracts, Vol. 9, 06802, 2007

SRef-ID: 1607-7962/gra/EGU2007-A-06802

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Intercomparison of measurements made from 4 research aircraft during the AMMA experiment

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During the Special Obervation Periods of the AMMA (African Monsoon Multidisciplinary Analyses) experiment in 2006, comprehensively instrumented research aircraft were used to measure properties of the atmosphere across West Africa. Many measurements were made in common between the aircraft, greatly expanding the coverage of the observations in time and space. However, in order to piece together the jigsaw and assimilate observations into models, it is essential to make an in situ comparison between like measurements made by different aircraft. This poster focusses on a flight near Niamey where the FAAM BAe146 aircraft flew wing-tip to wing-tip with 3 other aircraft in turn: the DLR Falcon, French Falcon and French ATR42. The measurements of temperature, humidity and trace gases are compared and systematic and random differences quantified.