



Providing surface flux measurements to the AMMA programme in west Africa

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AMMA (African Monsoon Multidisciplinary Analyses) is an international project to improve our knowledge and understanding of the West African Monsoon (WAM) and its variability with an emphasis on daily-to-interannual timescales. A complex programme of measurements, modelling and integration will address these issues over a variety of both horizontal and vertical spatial scales and integrating time-scales. 2005 sees the start of the Extended Observing Period (EOP) of the AMMA Programme. Embedded within the EOP will be several Special Observing Periods (SOPs) which will intensively address the above issues during pivotal periods of the WAM season.

This Poster illustrates the location and composition of the ten eddy correlation surface flux systems that the Centre for Ecology and Hydrology, Wallingford and Ocean Scientific International (OSIL) have been contracted to install and maintain to provide continuous flux measurements during the period of the EOP (April 2005 – Dec 2007). The locations have been chosen to provide a wide rainfall gradient and seasonality together with addressing the major land surface types typical of west Africa. The measurements have been chosen to adequately characterize the different surface types and to provide linkage with the wide range of other measurements and requirements that such a large interdisciplinary project produces.

The eddy correlation systems are based around four Mk4 Hydra CO₂/H₂O flux systems and 6 Heat Flux Energy Balance flux systems at the four AMMA supersites (mesosites). These systems will integrate with similar flux systems being operated by other AMMA and associated groups.