



The M55 Geophysica deployment during the west african Monsoon: campaign overview and preliminary results

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The high altitude research aircraft M55 Geophysica was deployed in Ouagadougou, Burkina Faso, during the AMMA Special Observing Period of summer 2006. The

scientific payload included remote sensors as well as in-situ chemical and particle instruments. The campaign activity was carried out in conjunction with the German D-20 Falcon, and in close cooperation with the ongoing AMMA activities in West Africa. The M55 flights aimed

(i) at a better understanding of the influence of the large scale transport of airmasses into the tropical tropopause layer over the region,

(ii) at studying the effects of intense mesoscale convective systems on the upper Troposphere and lower Stratosphere, with emphasis on their impact on the upward transport and redistribution of water, aerosol, dust and chemical species,

(iii) at assessing the effect of lightning on the NO_x production,

(iv) at validating the CALIPSO satellite lidar on board AQUA.

Five scientific flights were successfully carried out on site, and four transfer flights allowed a characterization of the tropopause region along a latitudinal transect from southern Europe to the Sahel. Here we will provide an overview of the M55 Geophysica campaign and of the observations accomplished.