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PRECIPITATION IN NORTH BENIN: COMPARISON BETWEEN GROUND-BASED RAIN EVENT CLASSIFICATION AND CLOUD SYSTEMS TRACKED FROM SATELLITE DATA

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LTHE / IRD

A rainfall event classification was developed using raingauges available from the AMMA/CATCH network in North Benin (see Gosset et al., this issue).

The aim of this study is to compare this classification (rain events) with mesoscale convective cloud systems tracked from Meteosat data (satellite events). During the period 01 June 2004-30 September 2004, 302 satellite events and 71 rain events were observed. Among the 302 satellite events, 202 were associated with 1 or more rain events whereas 100 were not associated with any rain event. Every rain event was associated with at least one satellite event. Quite frequently a rain event was associated with 2 or more satellite events.

The ground-based classification indicates whether the rain event is well organised and has a well-marked displacement. This displacement is consistent with that observed from cloud tracking. The degree of organisation is also, to a certain extent, consistent with the convective cloud organisation as defined by life duration, speed and vertical development.



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Convective wind system with aerosols, named "haboob", Hombori in Mali, West Africa.