

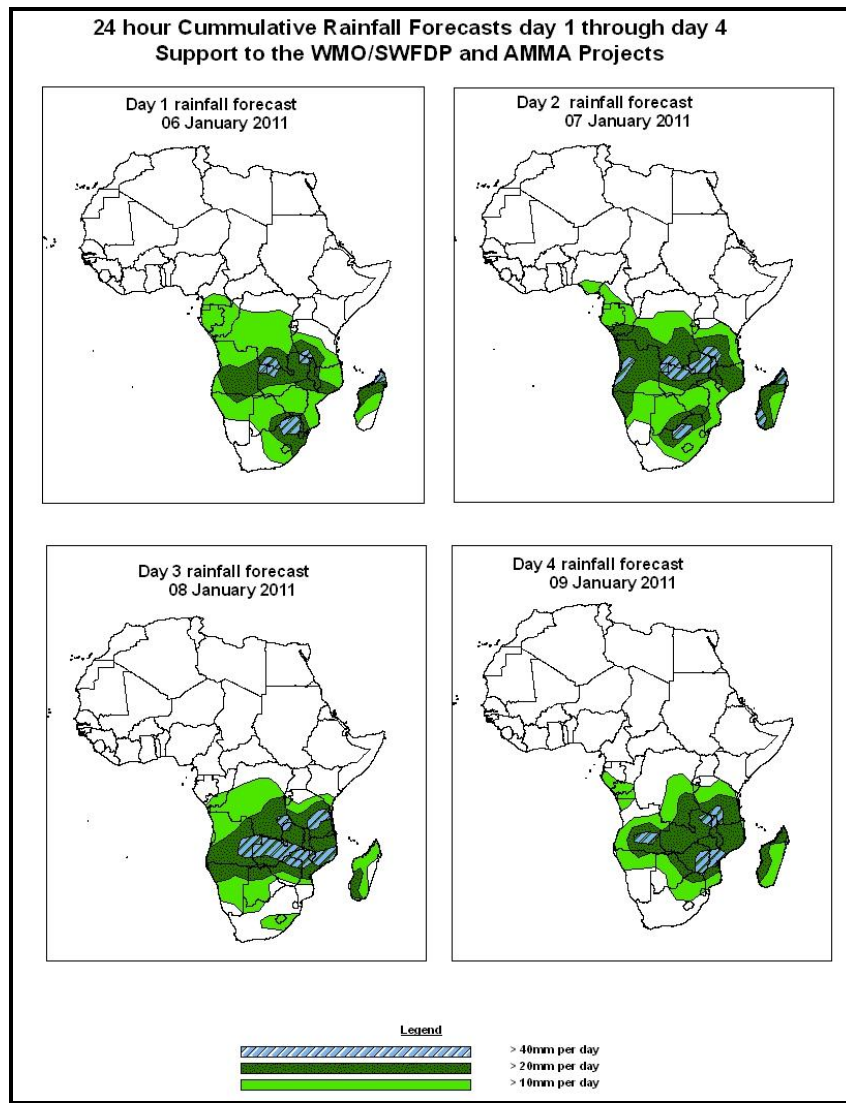


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 07Z of 06 JANUARY – 06Z of 09 January 2011, (Issued at 14:00Z of 05 January 2011)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceeded based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS) and expert assessment.



Summary

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over Southern Africa, East Africa and DRC with chances of locally heavy rainfall over Zambia, Tanzania, Malawi, Angola, South Africa, DRC, Mozambique, Zimbabwe and Madagascar.

1.2. Models Comparison and Discussion-Valid from 00Z of 5 JANUARY 2011.

According to the GFS, ECMWF and UKMET models a trough along the Gulf of Guinea and southwestern Angola is expected to persist during the next 24 to 96 hours. Another trough along the East Africa coast and Mozambique is expected to extend to Zambia, Botswana and parts of Namibia in the next 24 to 72 hours. Also the models are indicating a cut off low over southern Sudan to northern DRC that is expected to extend to Congo and Central Africa Republic in the next 96 hours. Another cut off low over western Tanzania and DRC is expected to move slightly northwards over DRC in the next 72 hours. Another trough across Botswana and western parts of South Africa is expected to extend to Zimbabwe and move southwards in the next 48 to 72 hours.

The seasonal low pressure system (Meridional component of the ITCZ) is expected to be active over the southern parts of the Continent and DRC.

According to the GFS, ECMWF and UKMET models, St. Helena High pressure system over southern hemisphere is expected to intensify slightly during the next 24 hours. On the other hand the Mascarene high pressure system is expected to remain generally weak.

At 850hPa level, The GFS model indicates Convergence line over northern DRC extending to western Tanzania in the next 24 hours is expected to persist during the next 96 hours. Another convergence over Zambia is expected to extend to Botswana and South Africa in the next 48 to 72 hours. Another convergence line over southern Mozambique is expected to extend to western Madagascar during the next 48 hours.

At 700hPa level, cyclonic convergence over Angola and DRC is expected to extend to Zambia in the next 48 to 72 hours and then become weak. A convergence line along southern Tanzania, Mozambique and Malawi is expected to become strong and move to eastern parts of Tanzania during the next 72 hours. Also the GFS model indicates another cyclonic convergence over southern Mozambique which is expected to extend to Madagascar in the next 24 to 48 hours and then become weak.

At 500hPa, the GFS model is indicating a retrogressing trough in the vicinity of South Africa east coast and Madagascar. The trough is likely to become more organized into a cyclonic circulation during the next 72 hours.

At 200hPa, zone of strong wind (>50Kts) associated with the Sub Tropical westerly Jet in the southern Hemisphere is currently weak and expected to persist during the next 96 hours.

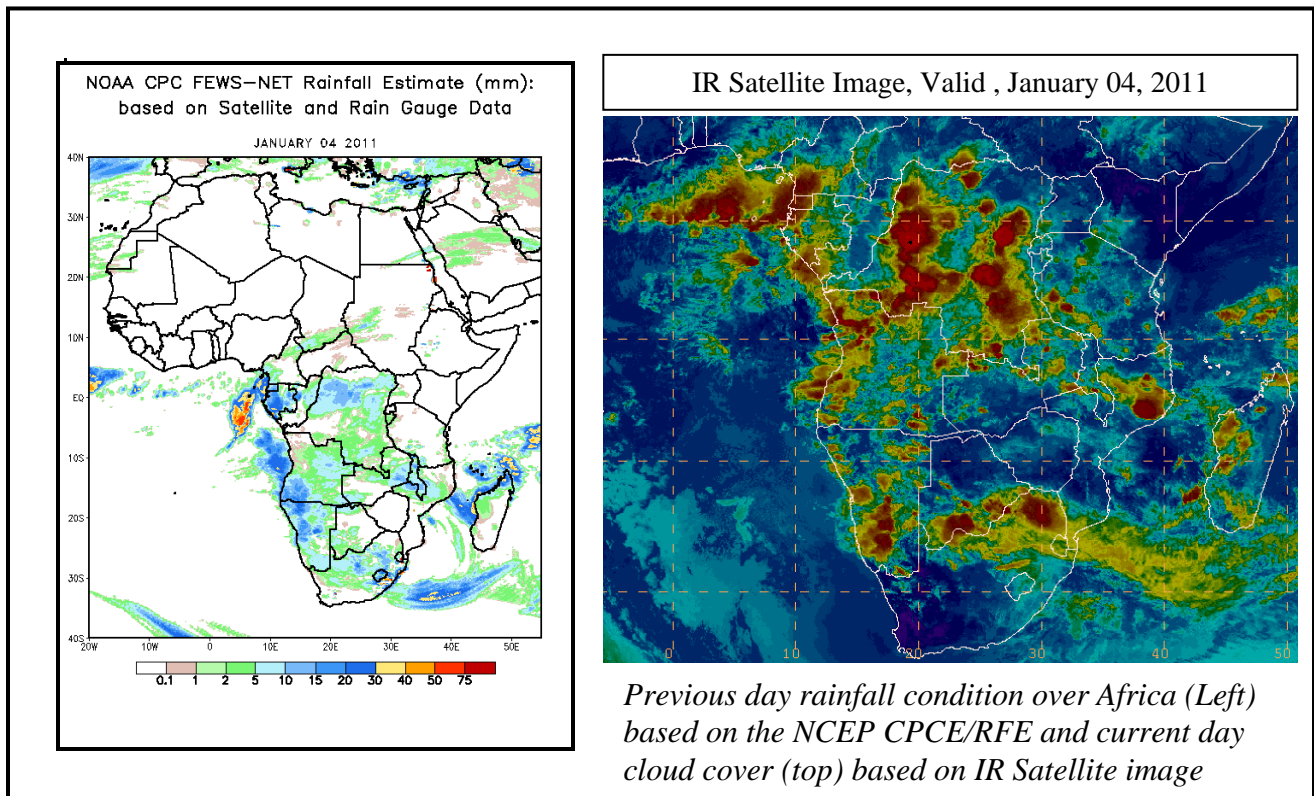
In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over Southern Africa, East Africa and DRC with chances of locally heavy rainfall over Zambia, Tanzania, Malawi, Angola, South Africa, DRC, Mozambique, Zimbabwe and Madagascar.

2.0. Previous and Current Day Weather Discussion over Africa (04 January 2011 – 05 January 2011)

2.1. Weather assessment for the previous day (04 January 2011):

During the previous day, moderate rainfall was observed over Angola, Gabon and Namibia.

2.2. Weather assessment for the current day (05 January 2011): Intense clouds are observed over DRC, Namibia, Botswana, Mozambique, South Africa, Southeast Cameroon and Equatorial Guinea.



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