

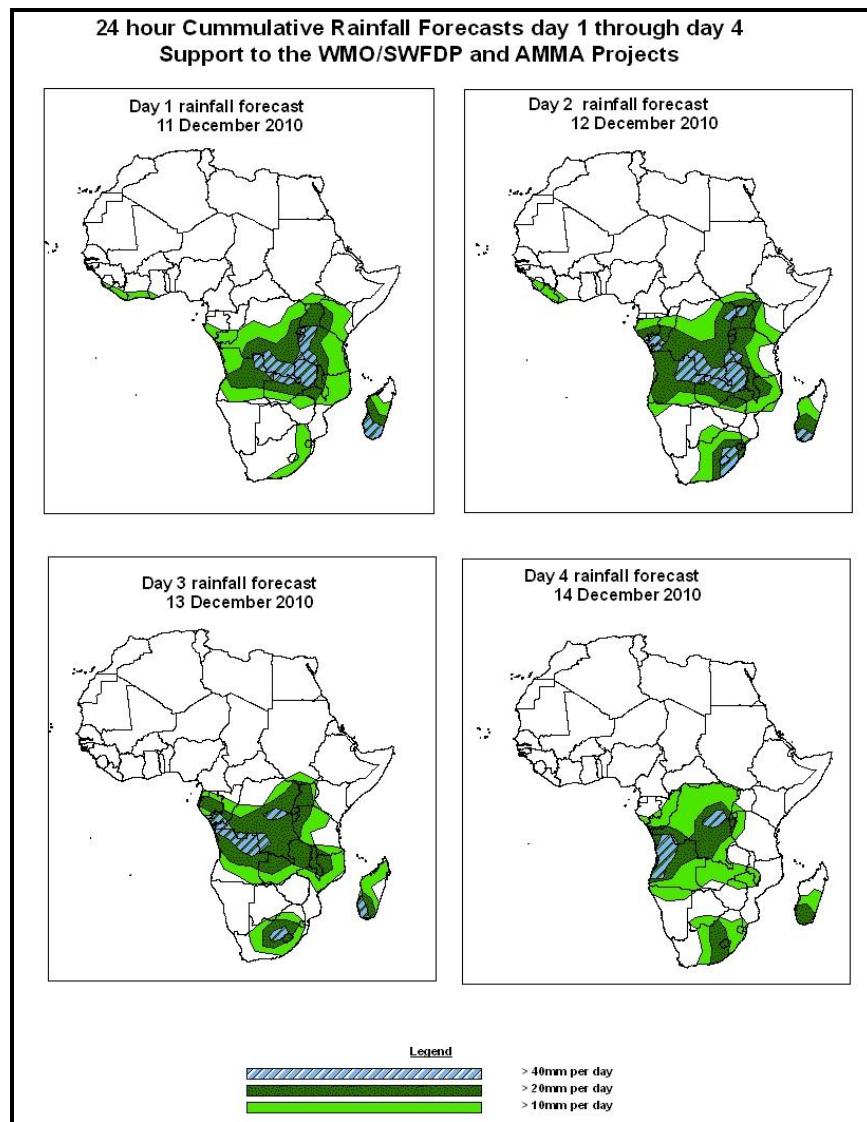


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 07Z of 11 DECEMBER – 06Z of 14 DECEMBER 2010, (Issued at 14:00Z of 10 DECEMBER 2010)

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 over DRC with chances of locally heavy rainfall over DRC, Zambia, Tanzania, Burundi, Rwanda, Angola, Madagascar, Lesotho and South Africa.

1.2. Models Comparison and Discussion-Valid from 00Z of 10 DECEMBER 2010.

According to the GFS, ECMWF and UKMET models a cut off low over south Sudan is expected to deepen during the next 48 to 72 hours. A broad cut of low over DRC extending to Botswana and northwest of South Africa is expected to become a trough and move over east Angola and Zambia during the next 48 hours. ECMWF is indicating another cut off low north of DRC extending to the Gulf of Guinea during the next 48 hours. The models are also indicating a cut off low over DRC and Tanzania is expected to persist during the next 48 to 72 hours.

The seasonal low pressure system (Meridional component of the ITCZ) is still more active over the southern parts of the Continent. During the next 72 to 96 hours a slightly shift to the west is expected.

According to the GFS, ECMWF and UKMET models, the southern hemisphere High pressure system (St. Helena) is expected to extend a ridge to the east coast of South Africa in 48 hours and then retreat westwards during the next 72hours. Also the Mascarene high pressure is expected to remain generally weak.

At 850hPa level, The GFS model is indicating convergence over Tanzania is expected to extend to DRC and Congo in the next 48 hours. Also a convergence line over Zambia is expected to extend to Botswana in the next 48 hours and later become strong extending to Angola and Zimbabwe. A cyclonic convergence over Mozambique is expected to weaken in the next 48 hours and extend to the eastern part of Madagascar.

At 700hPa level, cyclonic convergence along the western parts of Angola is expected to disappear in the next 72hours. Another cyclonic Convergence along the coast of Mozambique is expected to weaken in the next 48 hours and disappear. A convergence line over Lake Victoria is expected to move over DRC in the next 48 hours and then disappear. Another convergence over southern Madagascar is expected to persist for the next 48 72hours.

At 200hPa, zone of strong wind (>50Kts) associated with the Sub Tropical westerly Jet in the southern Hemisphere is expected to move off the east coast of South Africa with the wind speed in the range of 90 to 110 Kts in the next 24 hours.

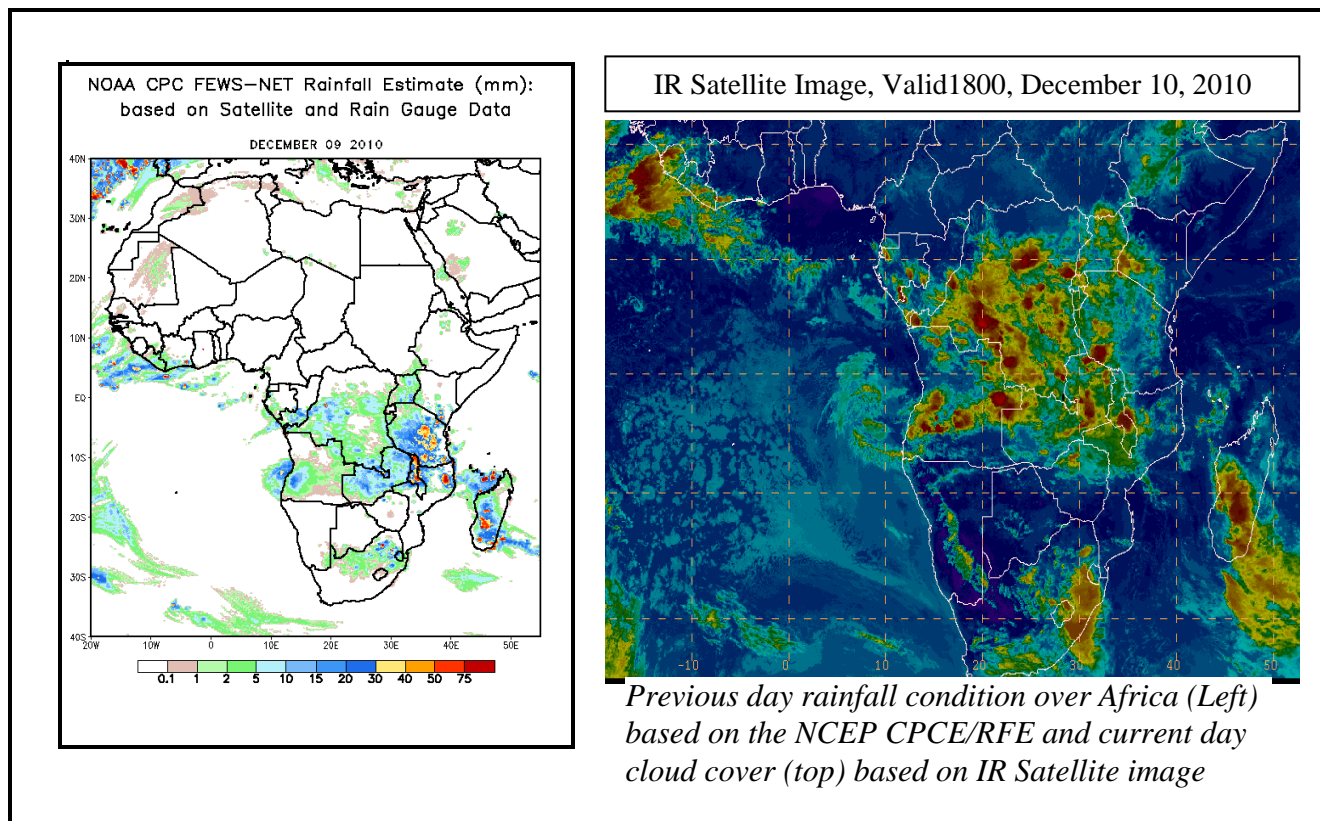
In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over Southern Africa, East Africa and over DRC with chances of locally heavy rainfall over DRC, Zambia, Tanzania, Burundi, Rwanda, Angola, Madagascar, Lesotho and South Africa.

2.0. Previous and Current Day Weather Discussion over Africa (09 December 2010 – 10 December 2010)

2.1. Weather assessment for the previous day (09 December 2010):

During the previous day, locally heavy rainfall was observed over Tanzania, South Africa and Madagascar.

2.2. Weather assessment for the current day (09 December 2010): Intense clouds are observed over DRC, Angola, Zambia, Madagascar, Mozambique, Tanzania and Malawi.



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