

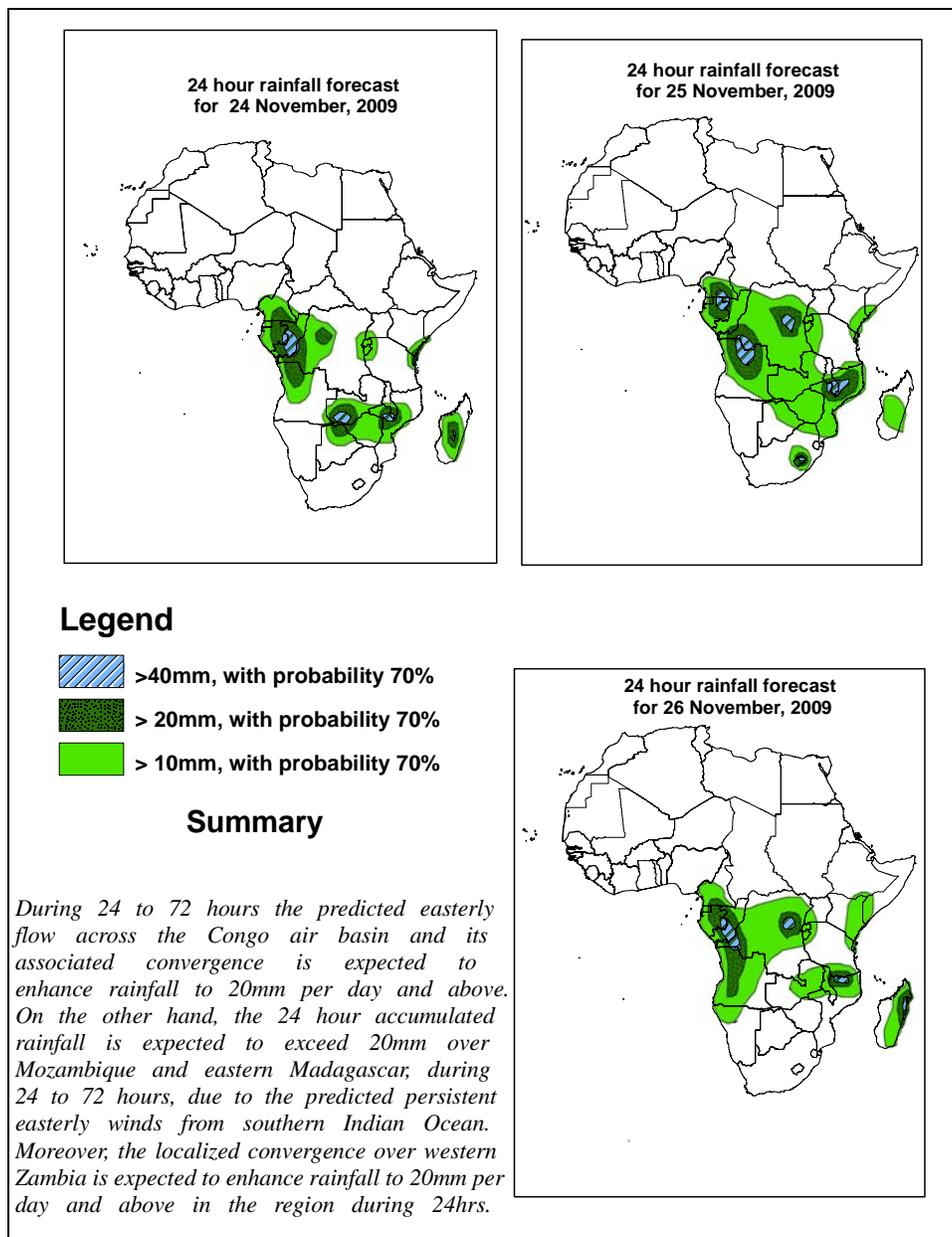


## NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

### 1.0. Rainfall Forecast: Valid, 06Z of 24 November – 06Z of 26 November 2009, (Issued at 14:00EST Of 23 November 2009)

#### 1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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



## **1.2. Models Comparison and Discussion (Valid from 00Z; 24, NOVEMBER, 2009):**

*Valid from 00Z of 23November 2009*

*THE GFS AND ECMWF MODEL FORECASTS INDICATE WEAK CONVERGENCE OVER THE CONGO AIR BASIN REGION THROUGH 24 TO 48 HRS, WITH THE CONVERGENCE ASSOCIATED WITH TROPICAL EASTERLY WINDS IS EXPECTED TO SHIFT TOWARDS WESTERN PORTIONS OF EQUATORIAL AFRICA. THE CONVERGENCE OVER THE CAB REGION IS EXPECTED TO RE-STRENGTHEN AFTER 72hrs ON THE GFS MODEL, BUT IT IS EXPECTED TO REMAIN WEAK ON THE ECMWF MODEL. HOWEVER, THE UK MET OFFICE MODEL INDICATES ACTIVE CONVERGENCE OVER THE CAB REGION THROUGH 24 TO 72 HOURS.*

*ON THE OTHER HAND, THE ECMWF AND UK MET OFFICE MODELS EXPECT DEVELOPMENT OF A DEEP CYCLONIC CIRCULATION, NORTHEAST OF MADAGASCAR. ASSOCIATED WITH THIS CYCLONIC CIRCULATION, THE ECMWF MODEL INDICATES MAXIMUM WIND SPEED OF 35KTS DURING 24 AND 48HRS, WHILE THE UK MET OFFICE MODEL PREDICTED MAXIMUM WIND SPEED OF 25KNTS THROUGH 24 TO 72 HRS. MOREOVER, THE CYCLONIC CIRCULATION IS EXPECTED TO MOVE WESTWARDS ON BOTH MODELS, REACHING AN AREA NORTH OF MADAGASCAR AFTER 72 HRS. HOWEVER, THE GFS MODEL FAILED TO INDICATE THE DEVELOPMENT AND MOVEMENT OF THIS CYCLONIC CIRCULATION IN ITS 24 TO 72HRS FORECASTS.*

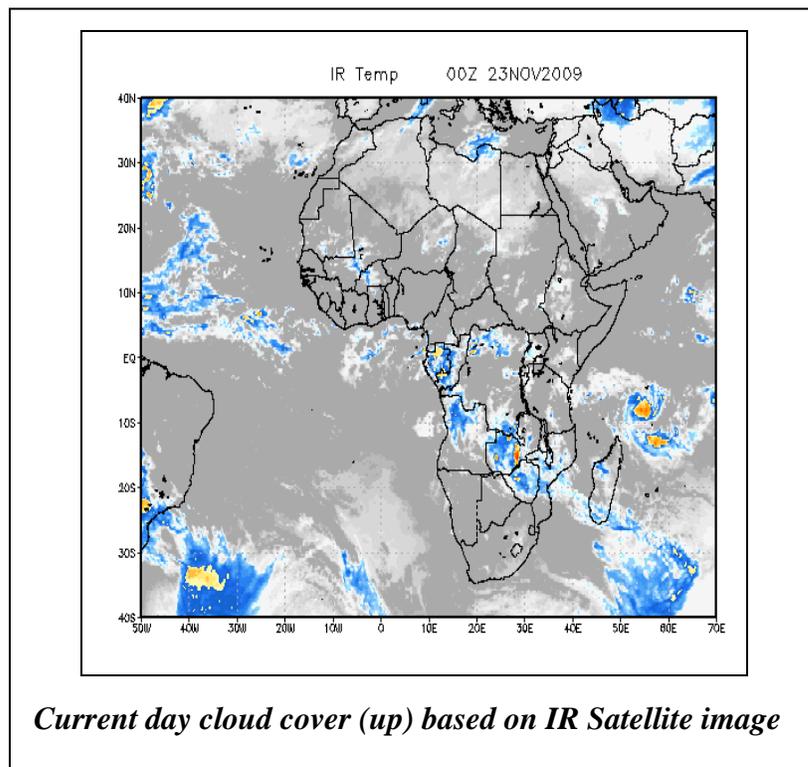
*ASSOCIATED WITH THIS CYCLONIC CIRCULATION, THE UK MET OFFICE MODEL EXPECTS MEAN SEA LEVEL PRESSURE OF 1008MB THROUGH 24 TO 72 HOURS WHILE THE MEAN SEA LEVEL PRESSURE FROM THE ECMWF MODEL IS EXPECTED TO REMAIN 1009MB DURING 24 TO 72 HOURS.*

*DURING 24 TO 72 HOURS THE PREDICTED EASTERLY FLOW ACROSS THE CONGO AIR BASIN AND ITS ASSOCIATED CONVERGENCE IS EXPECTED TO ENHANCE RAINFALL TO 20MM PER DAY AND ABOVE. ON THE OTHER HAND, THE 24 HOUR ACCUMULATED RAINFALL IS EXPECTED TO EXCEED 20MM OVER MOZAMBIQUE AND EASTERN MADAGASCAR, DURING 24 TO 72 HOURS, DUE TO THE PREDICTED PERSISTENT EASTERLY WINDS FROM SOUTHERN INDIAN OCEAN. MOREOVER, THE LOCALIZED CONVERGENCE OVER WESTERN ZAMBIA IS EXPECTED TO ENHANCE RAINFALL TO 20MM PER DAY AND ABOVE IN THE REGION DURING 24HRS.*

## 2. Previous and Current Day Weather Discussion over Africa (22-23 November 2009)

**2.1. Weather assessment for the previous day (22 November 2009):** During the previous day, moderate to heavy rainfall events were observed over parts of northern Congo, southern DR Congo, southwestern Ethiopia, Lake Victoria basin, northeastern Angola, northern Namibia, central Zambia, Zimbabwe, southern Mozambique and western Madagascar.

**2.2. Weather assessment for the current day (23 November 2009):** Intense clouds are observed over parts of Gabon, Congo, northern DR Congo, northeastern Angola, Zimbabwe, Zambia and southern Mozambique.



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**Disclaimer:** This bulletin is for training purposes only and should be used as guidance. NOAA does not make forecasts for areas outside of the United State.