

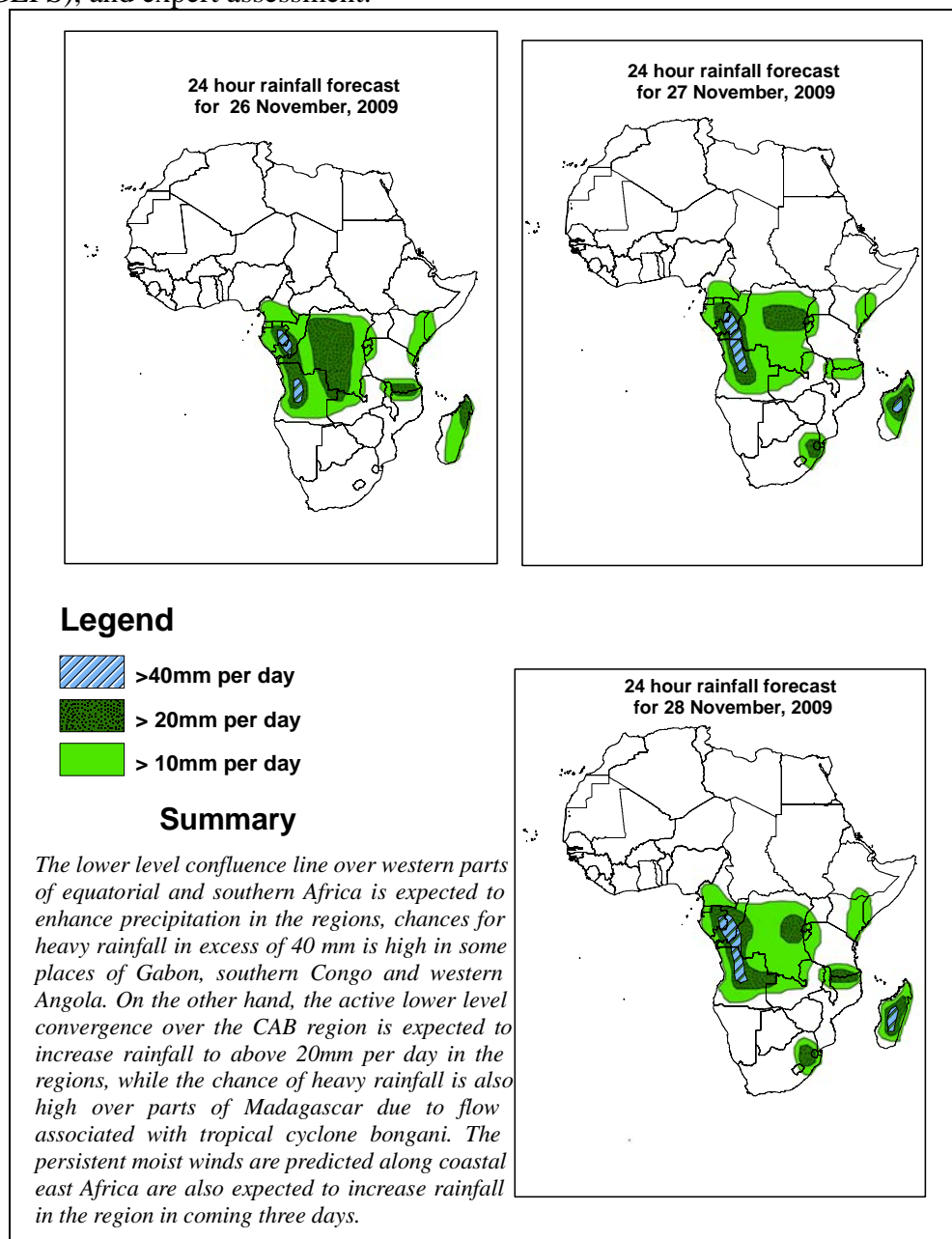


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 26 November – 06Z of 28 November 2009, (Issued at 14:00EST Of 25 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; 25, NOVEMBER, 2009):

Valid from 00Z of 25 November 2009

THE 850mb WIND FORECASTS OF GFS, ECMWF AND UK MET OFFICE INDICATE STRONG WIND COFLUENCE OVER WESTERN PARTS OF EQUATORIAL AND SOUTHERN AFRICA BETWEEN DRY NORTHEASTERLIES AND MOIST EASTERLIES. ESPECIALLY, THE ECMWF AND GFS MODELS PREDICTED A GRADUAL SHIFT OF THE CONFLUENCE LINE TOWARDS WESTERN ANGOLA THROUGH 24 TO 72 HRS. ON THE OTHER HAND, ALL THE THREE MODELS TEND TO PERSIST ACTIVE 850mb CONVERGENCE OVER THE CAB REGION DURING 24 TO 72 HRS. ESPECIALLY, THE GFS MODEL PREDICTED STRONGER 850mb WIND CONVERGENCE OVER THE CAB REGION DURING 24HRS.

THE ECMWF AND GFS MODELS ALSO INDICATED PERSISTENT EASTERLY FLOW ACROSS THE HORN OF AFRICAN COUNTRIES IN THEIR 850MB WIND FORECASTS THROUGH 24 TO 72 HRS. MOREOVER, THE ECMWF AND GFS MODEL FORECASTS OF 850MB AND 500MB INDICATE THE PASSAGE OF A MID-LATITUDE FRONTAL SYSTEM ACROSS SOUTH AFRICA DURING 48 TO 72 HRS.

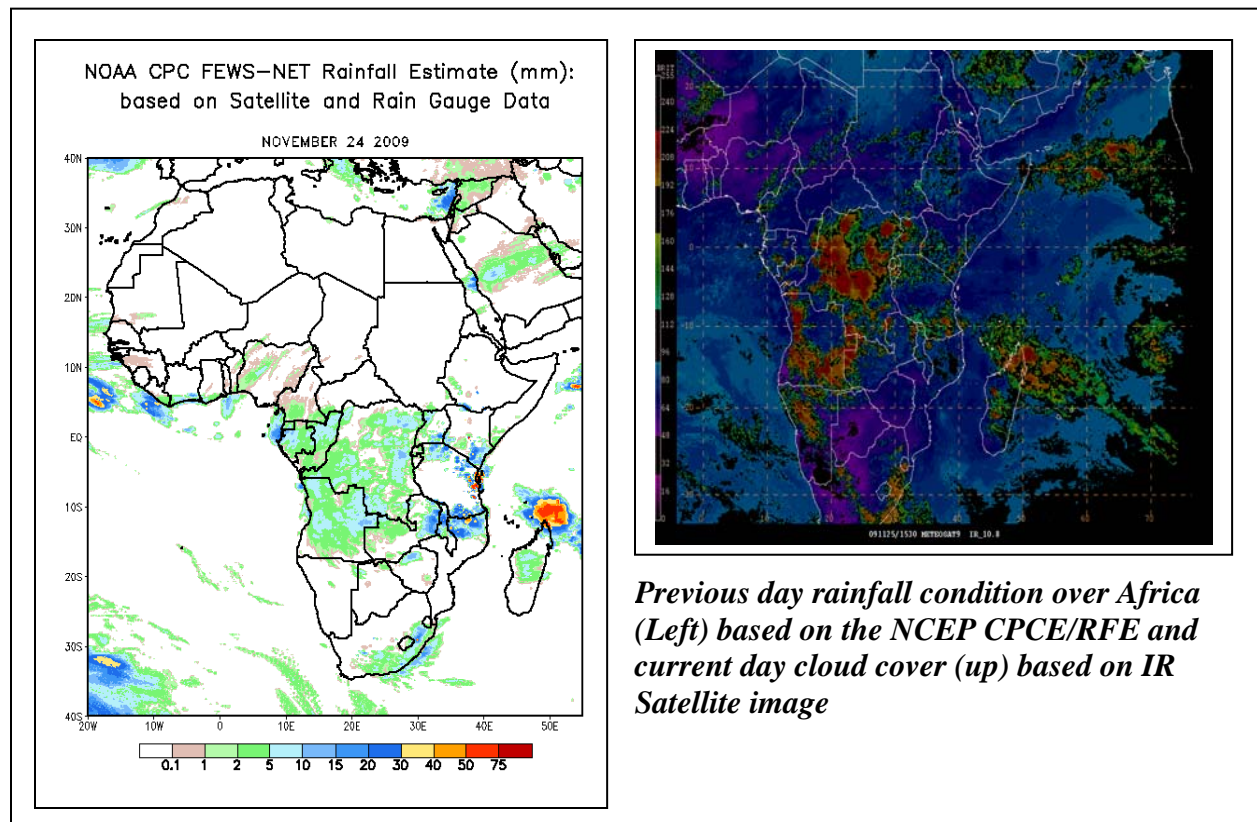
ON THE OTHER HAND, THE JTWC TROPICAL CYCLONE WARNING INDICATES WESTWARD MOVEMENT OF TROPICAL CYCLONE (BONGANI) FROM ITS CURRENT POSITION NORTHEAST OF MADAGASCAR (NEAR 11.6S 50.2E) TOWARDS MOZAMBIQUE CHANNEL BETWEEN 24 TO 120 HRS. HOWEVER, THE MEAN SEAL LEVEL PRESSURE VALUES AND THE LOWER TROPOSPHERIC WINDS PREDICTED BY THE GFS, ECMWF AND UK MET OFFICE MODELS ARE NOT AS STRONG AS INDICATED IN THE TROPICAL CYCLONE ADVISORY OF JTWC.

IN GENERAL, THE LOWER LEVEL CONFLUENCE LINE OVER WESTERN PARTS OF EQUATORIAL AND SOUTHERN AFRICA IS EXPECTED TO ENHANCE PRECIPITATION IN THE REGIONS. IN PARTICULAR, THE CHANCE FOR HEAVY RAINFALL IN EXCESS OF 40 MM IS HIGH IN SOME PLACES OF GABON, SOUTHERN CONGO AND WESTERN ANGOLA. ON THE OTHER HAND, THE ACTIVE LOWER LEVEL CONVERGENCE OVER THE CAB REGION IS EXPECTED TO INCREASE RAINFALL TO ABOVE 20MM PER DAY IN THE REGIONS, WHILE THE CHANCE OF HEAVY RAINFALL IS ALSO HIGH OVER PARTS OF MADAGASCAR DUE TO FLOW ASSOCIATED WITH TROPICAL CYCLONE BONGANI. THE PERSISTENT MOIST WINDS ARE PREDICTED ALONG COASTAL EAST AFRICA ARE ALSO EXPECTED TO INCREASE RAINFALL IN THE REGION.

2. Previous and Current Day Weather Discussion over Africa (24-25 November 2009)

2.1. Weather assessment for the previous day (24 November 2009): During the previous day, moderate to heavy rainfall events were observed over parts of southern Cameroon, Gabon, Congo, DR Congo, southeastern Kenya, central Zambia, Angola, northern Zimbabwe southern Mozambique, southern South Africa and northern Madagascar.

2.2. Weather assessment for the current day (25 November 2009): Intense clouds are observed over parts of northern Congo, DR Congo, East African Countries, southern Angola, northern Zambia, Namibia, eastern South Africa and northern Madagascar.



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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.