

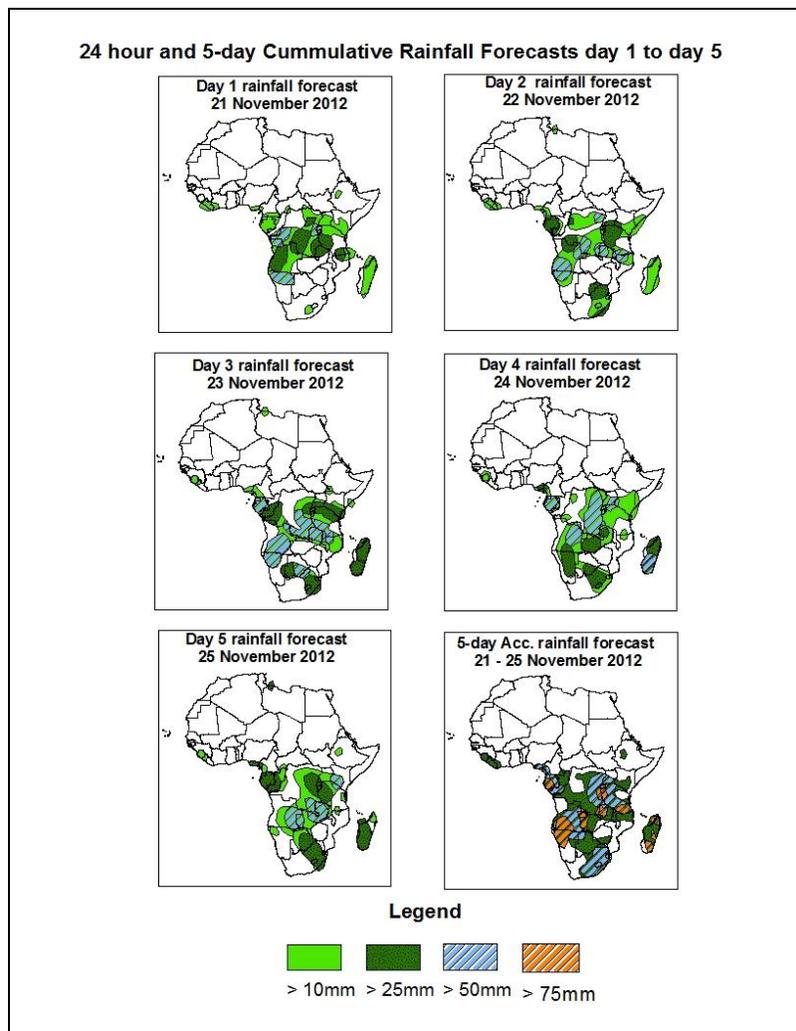


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 21 November – 06Z of 25 November 2012. (Issued at 15:30Z of 20 November 2012)

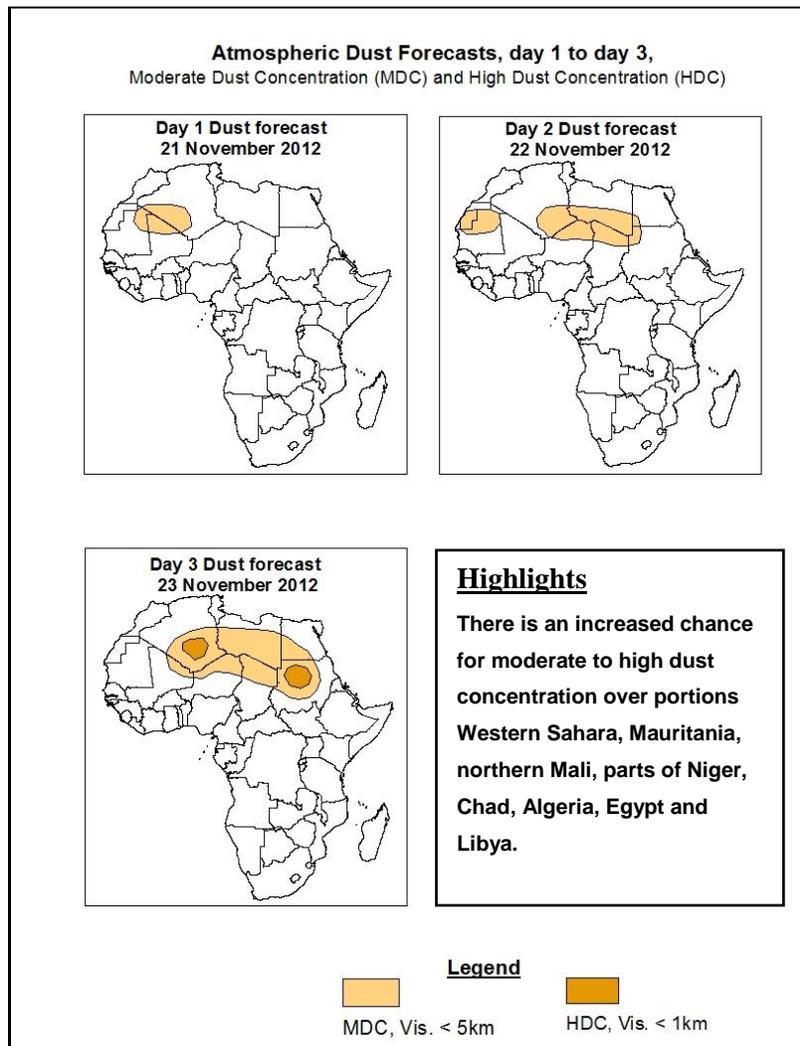
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of 75% 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 next five days, stronger than normal wind convergences in the Congo Basin, a lower level wind convergence near Gabon, lower-level wind convergences over parts of South African countries, and eastward propagating trough across South Africa, and Madagascar are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for heavy rainfall over Gabon, parts of Congo, parts of Angola, northern Namibia, local areas in Botswana and Zambia, DRC, Uganda, parts of Tanzania and Kenya, local areas in Mozambique, eastern South Africa and Madagascar.



1.2. Model Discussion: Valid from 00Z of 20 November 2012

Model comparison (Valid from 00Z; 20 November 2012) shows all the three models are in general agreement in terms of depicting re-strengthening of the southern hemisphere high pressure systems (St. Helena and Mascarene). However, the models show differences in terms of central pressure values.

The St. Helena High pressure system over southeast Atlantic Ocean is expected to strengthen through 48 to 120 hours, with its central pressure value decreasing from 1025hpa to 1033 according to the ECMWF, from 1025hpa to 1031hpa, according to the GFS model, and from 1026hpa to 1032hpa according to the UKMET model.

The Mascarene high pressure system over southwestern Indian Ocean is expected to strengthen through 24 to 120 hours, with its central pressure value decreasing from

about 1021hpa to 1029hpa according to the ECMWF model, from 1021hpa to 1027hpa according to the GFS model, and from 1023hpa to 1029hpa, according to the UKMET model.

The seasonal lows across the southern African countries are expected to deepen slightly during the forecast period, with the central pressure value decreasing from about 1009hpa to 1007hpa according to the ECMWF model, from 1007hpa to 1005hpa according to the GFS model, and from 1008hpa to 1005hpa according to the UKMET model.

At the 850hpa level, the seasonal lower level wind convergence is expected to remain active over the Congo Basin through 24 to 120 hours while shifting slightly to the East. A lower level wind convergence is also expected to prevail over western Zambia, parts of Angola, Botswana and Namibia, while shifting slightly to the East towards end of the forecast period. Wind convergences are also expected to remain active near Gabon and the neighboring areas. A lower trough in westerlies expected to dominate the flow over eastern South Africa and Madagascar.

At 500hpa, two troughs in the mid-latitude westerlies are expected to propagate across North Africa during the forecast period. A trough associated with mid-latitude frontal system is also expected to propagate across southern South Africa during the forecast period.

At 200hpa, the northern hemisphere sub-tropical westerly jet is expected to remain strong Northeast Africa, with the core wind speed exceeding 120kts over Libya and Egypt.

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Tanzania and Kenya, local areas in Mozambique, eastern South Africa and Madagascar.

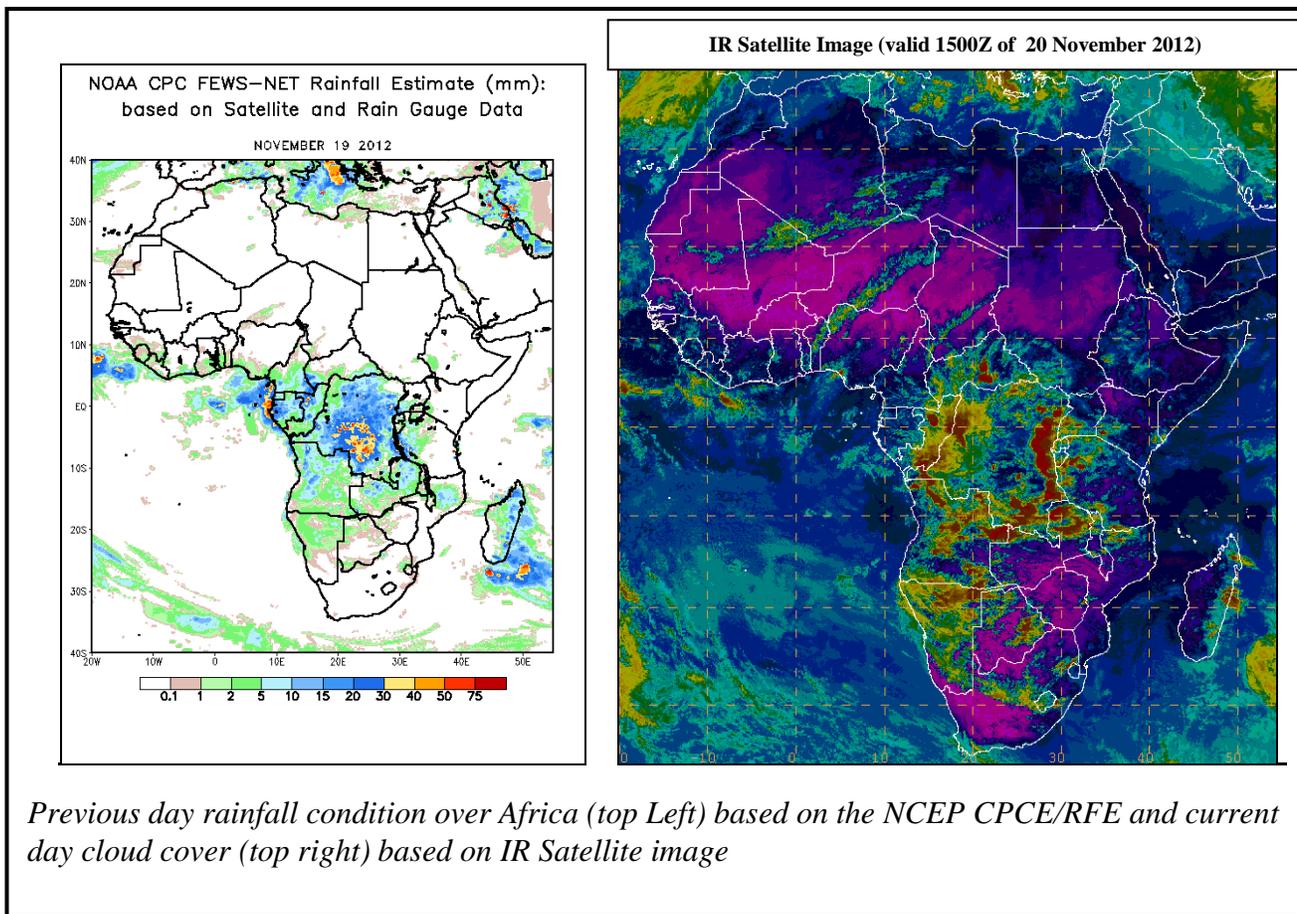
2.0. Previous and Current Day Weather Discussion over Africa (19 November 2012 – 20 November 2012)

2.1. Weather assessment for the previous day (19 November 2012)

During the previous day, moderate to locally heavy rainfall was observed over parts of Cameroon, Gabon, CAR, Congo, DRC and eastern South Africa.

2.2. Weather assessment for the current day (20 November 2012)

Intense clouds are observed across the Gulf of Guinea countries, many parts of Central African region, portions of the Horn of Africa and Southeast Africa.



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