

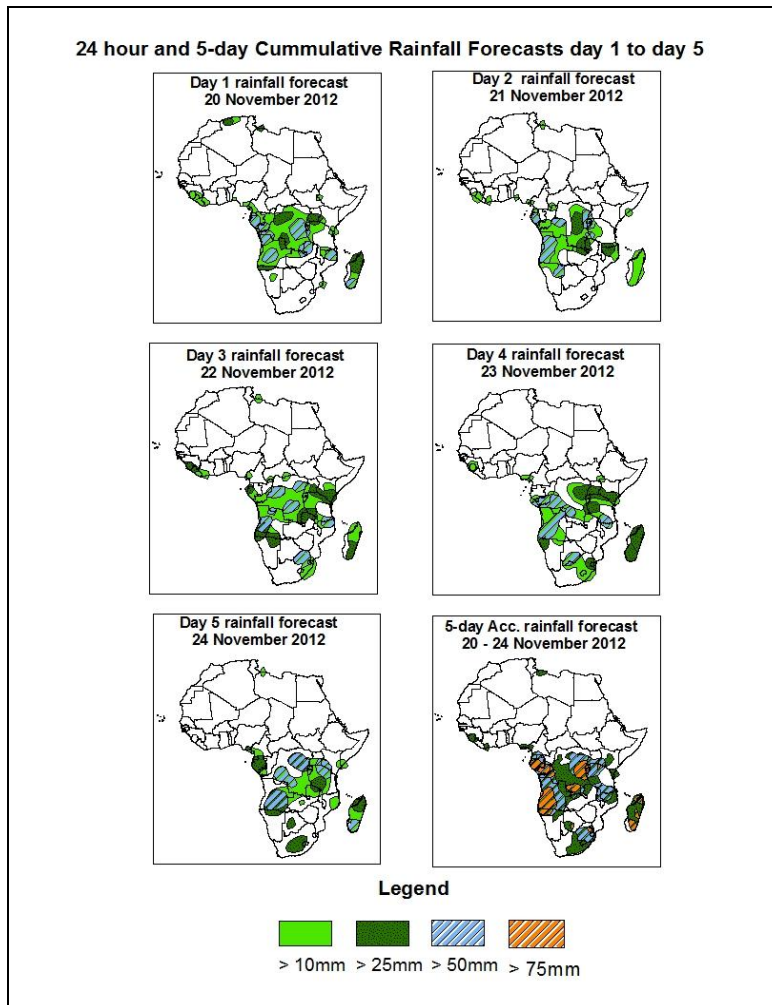


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 20 November – 06Z of 24 November 2012. (Issued at 15:30Z of 19 November 2012)

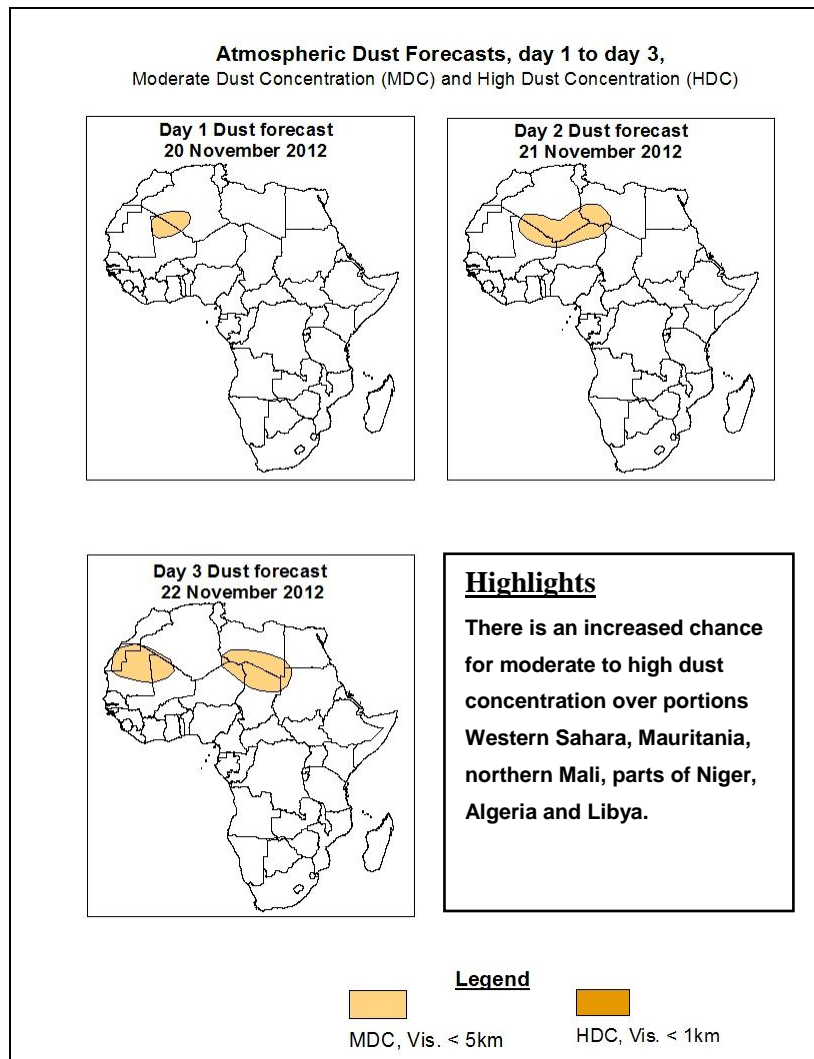
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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 across western parts of Equatorial Africa, including Angola, 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, Equatorial Guinea, Angola, many parts of DRC, Uganda, parts of Tanzania and Kenya, northern Mozambique, local areas in Namibia and Botswana, eastern South Africa and Madagascar.



1.2. Model Discussion: Valid from 00Z of 19 November 2012

Model comparison (Valid from 00Z; 19 November 2012) shows all the three models are in general agreement in terms of depicting the 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 24 to 120 hours, with its central pressure value decreasing from 1025hpa to 1030 according to the ECMWF, from 1021hpa to 1032hpa, according to the GFS model, and from 1025hpa to 1034hpa 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 1026hpa according to the ECMWF model, from 1021hpa to 1025hpa according to the GFS model, and from 1021hpa to 1028hpa, 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 1008hpa to 1006hpa according to the ECMWF model, from 1007hpa to 1005hpa according to the GFS model, and from 1009hpa to 1006hpa according to the UKMET model.

At the 850hpa level, the seasonal lower level wind convergence is expected to re-strengthen gradually over the Congo basin through 24 to 120 hours while shifting slightly to the East. Another lower level wind convergence is expected to prevail over western Zambia, parts of Angola, Botswana and Namibia. Wind convergences are also expected to remain active across western Equatorial Africa including western Angola. A lower trough in westerlies expected to dominate the flow over eastern South Africa and Madagascar.

At 500hpa, a trough in the mid-latitude westerlies is expected to propagate across North Africa while deepening towards end of the forecast period. A trough associated with mid-latitude frontal system is expected to propagate across Madagascar through 24 to 48 hours.

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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DRC, Uganda, parts of Tanzania and Kenya, northern Mozambique, local areas in Namibia and Botswana, eastern South Africa and Madagascar.

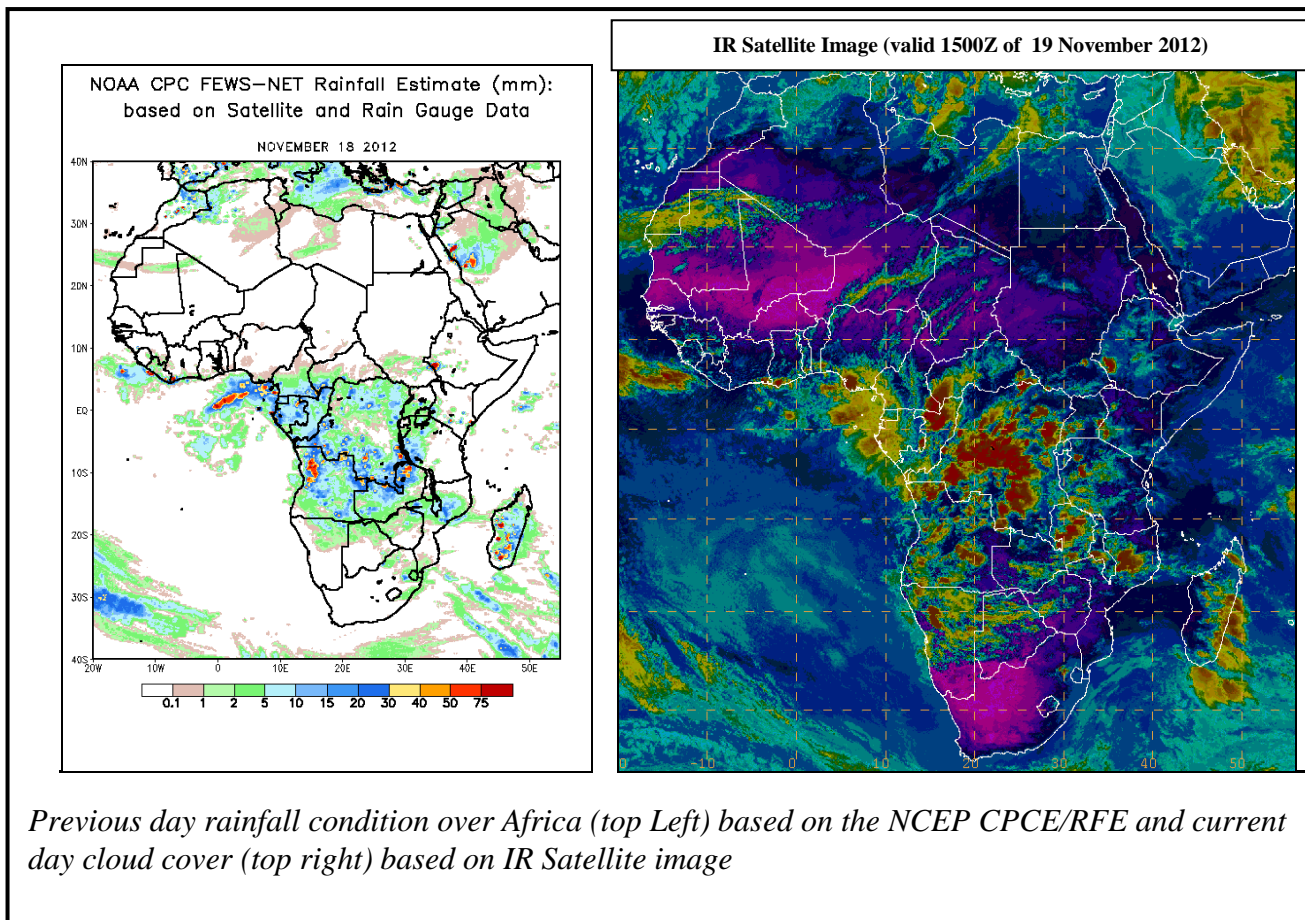
2.0. Previous and Current Day Weather Discussion over Africa (18 November 2012 – 19 November 2012)

2.1. Weather assessment for the previous day (18 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 (19 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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