

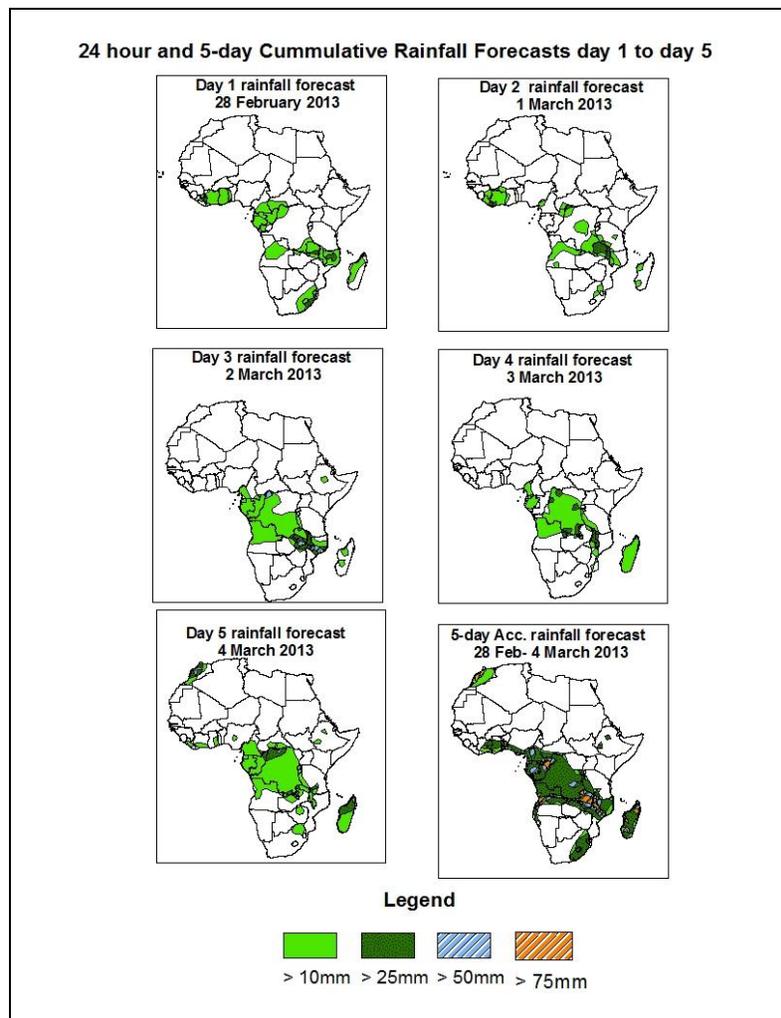


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 28 February – 06Z of 4 March 2013. (Issued at 16:00Z of 27 February 2013)

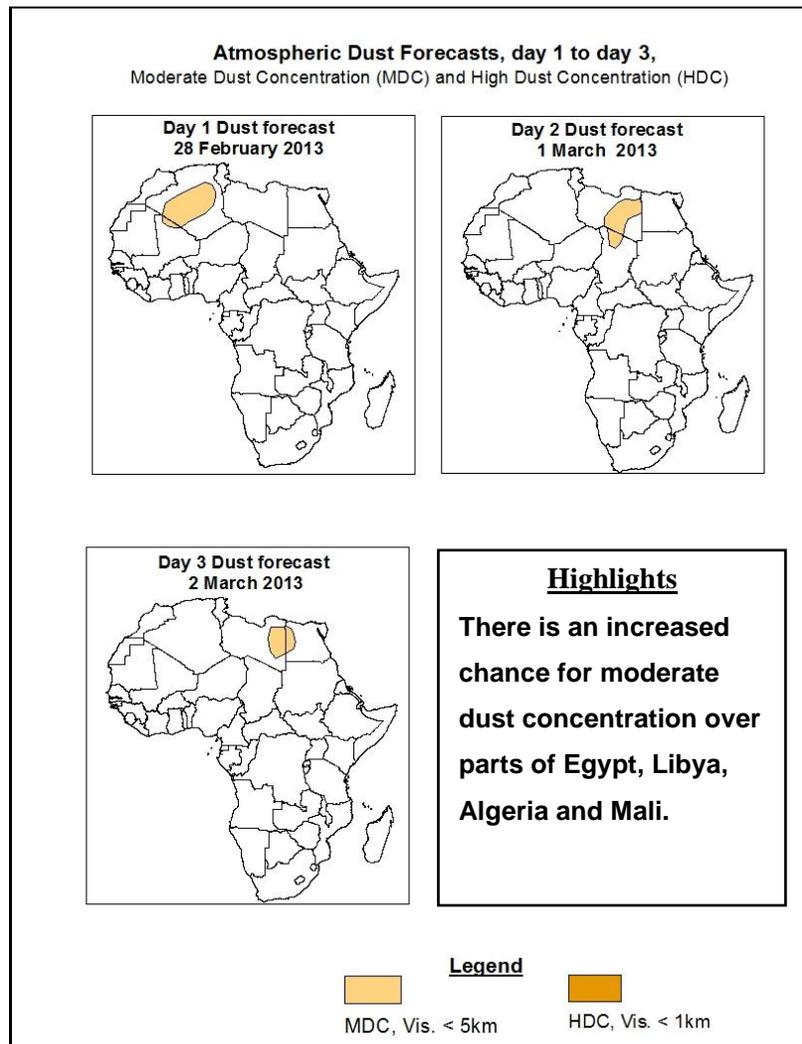
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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, moist lower-level winds from the Atlantic and Indian Oceans and their associated seasonal convergences are expected to maintain moderate to locally heavy rainfall over parts of; Gabon, DRC, Angola, northern Zambia, Malawi, Mozambique, and east of South Africa.



1.2. Model Discussion: Valid from 00Z of 27 February 2013

Model comparison (Valid from 00Z; 27 February 2013) shows all the three models are in general agreement in terms of depicting eastward movement of the Mascarene and St Helena high pressure systems during the forecast period. However, the models show slight differences in terms of central pressure values.

In the next five days the St. Helena High Pressure System over southeast Atlantic Ocean is expected to slightly strengthen through 24 to 72 hours. The central pressure value is expected to be about 1022hpa to 1026hpa according to GFS model, from about 1021hpa to 1027hpa according to ECMW and UKMET models).

The Mascarene high pressure system over southwestern Indian Ocean is also expected to strengthen throughout the forecasting period, while shifting smoothly eastwards. Its

central pressure value is expected to increase from about 1022hpa to 1032hpa, according to the GFS model, from about 1019hpa to 1032hpa according to ECMWF model and from about 1020hpa to 1032hpa according to UKMET model.

The seasonal lows across DRC, South Sudan and the neighboring areas is expected to remain slightly weak throughout the forecast period, with the central pressure values decreasing from about 1006hpa to 1004hpa according to the GFS, from about 1005hpa to 1004hpa according to the ECMWF and from about 1005hpa to 1004hpa according to the UKMET model in total agreement with all the three models.

At the 850hpa level, the seasonal lower level wind convergence near the CAB region is expected to continue to remain with weak to moderate convergence conditions through 24 to 120 hours. Weak to Moderate low level convergence is thus expected to be experienced over central regions of DRC, Angola, northern parts of Zambia, Mozambique and Malawi.

At 500hpa, a trough in the mid-latitude westerly is expected dominate the flow over northern countries of Africa and Mediterranean Sea through 24 to 72 hours and an eastward propagation is expected to dominate the flow over the previously mentioned areas towards end of the forecast period. An eastward flow is expected to prevail over South Africa and the neighboring countries through most periods of the coming five days.

At 200hpa, the northern hemisphere sub-tropical westerly jet is expected to remain active through the forecast period; the core wind speed occasionally will exceed 130kts over northern African countries, the Mediterranean Sea and Cape areas of South Africa.

In the next five days, moist lower-level winds from the Atlantic and Indian Oceans and their associated seasonal convergences are expected to maintain mainly light to moderate rainfall over parts of Gabon, DRC, Angola, northern Zambia, Malawi, Mozambique, and east of South Africa.

2.0. Previous and Current Day Weather Discussion over Africa

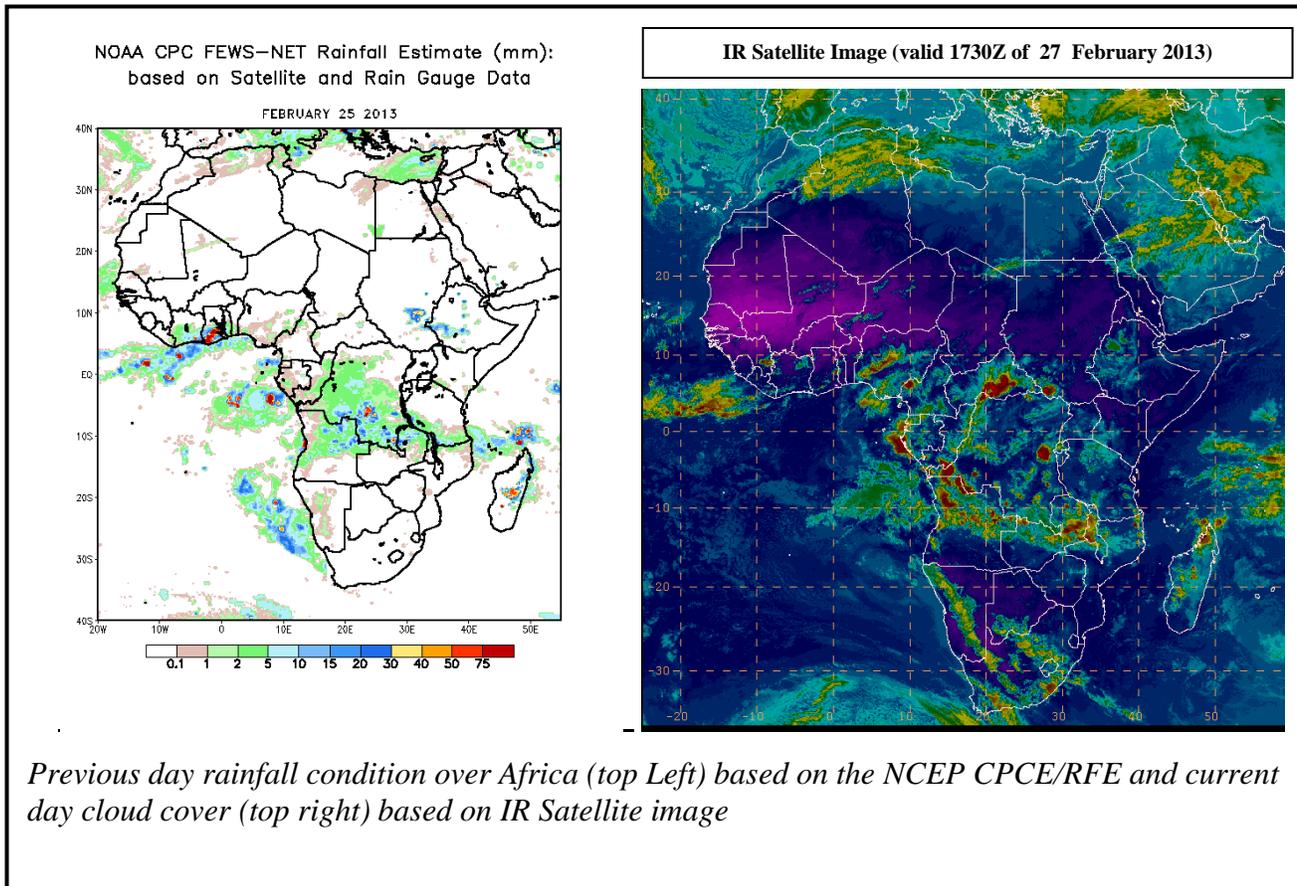
(26 February 2013 – 27 February 2013)

2.1. Weather assessment for the previous day (26 February 2013)

During the previous day, moderate to locally heavy rainfall was observed over DRC, Zambia, Angola and Madagascar.

2.2. Weather assessment for the current day (27 February 2013)

Intense patches of clouds are observed over parts of Nigeria, Gabon, Central African Republic, DRC, Angola, Zambia, Malawi, Tanzania, northern Mozambique, Madagascar, Namibia and South Africa.



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