

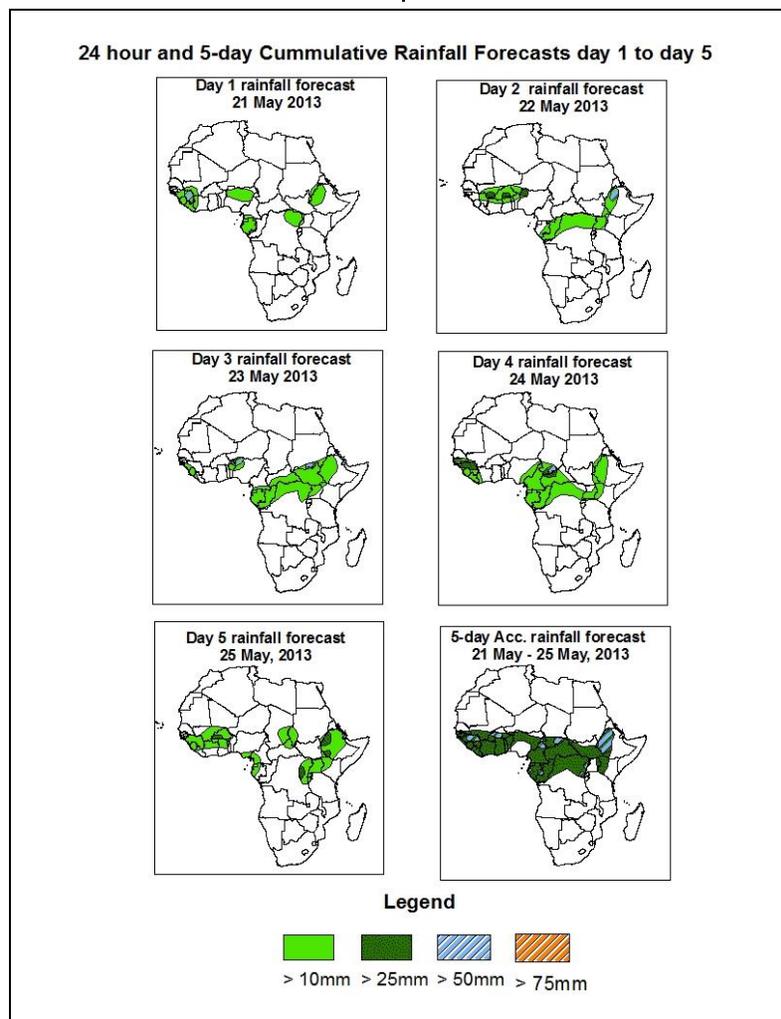


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 21 May – 06Z of 25 May, 2013. (Issued at 1630Z of 20 May 2013)

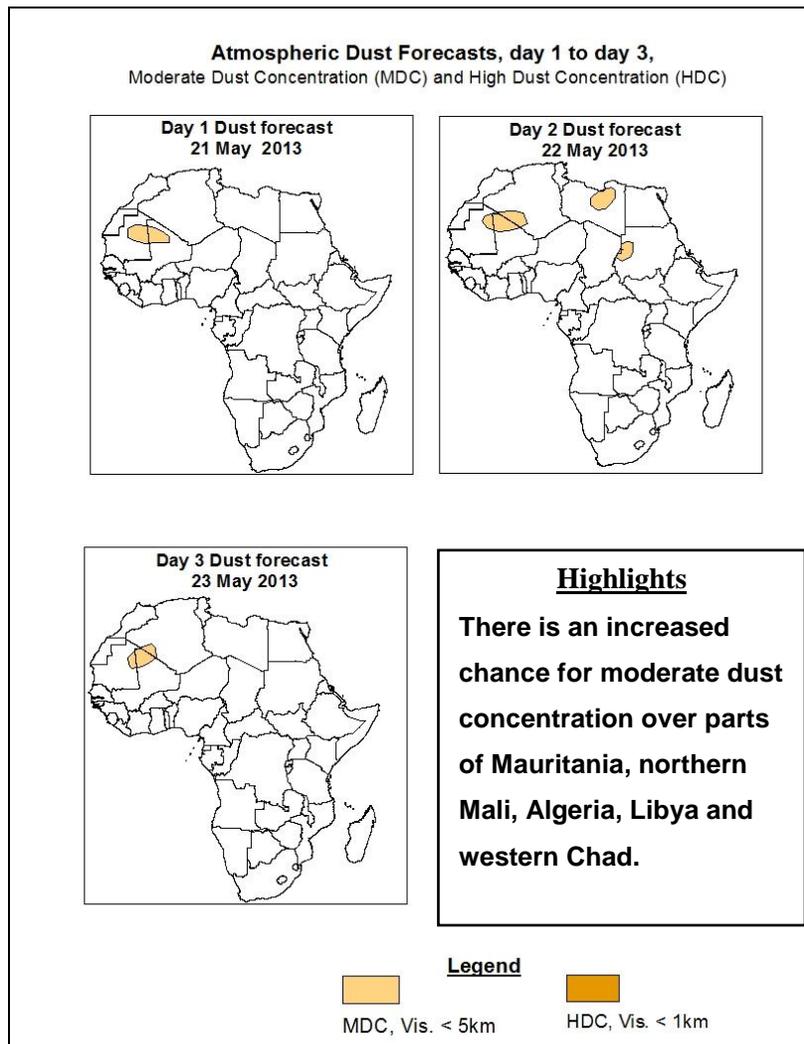
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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, the seasonal cross-equatorial flow from the Indian Ocean and its associated convergence over parts of central and eastern African regions, lower-level convergences associated with the monsoon-flow over portions of West Africa, and seasonal wind convergences near the Congo Air Boundary region and western Ethiopia are expected to enhance rainfall in their respective regions. Hence, there is an increased chance for moderate to locally heavy rainfall over Guinea, Burkina Faso, Cameroon, Gabon, southern Chad, eastern DRC, and western Ethiopia.



1.2. Model Discussion: Valid from 00Z of 20 May 2013

Model comparison (Valid from 00Z;20 May, 2013) shows all the three models are in general agreement in terms of depicting positions of the southern hemisphere subtropical highs, while they showed slight differences in depicting their intensity.

The St. Helena High Pressure System over southeast Atlantic Ocean is expected to remain during the forecast period. Its central pressure value is expected remain below 1020hpa according to the GFS, the UKMET and the ECMWF models.

The Mascarene high pressure system over southwestern Indian Ocean is expected to intensify slightly while shifting eastwards through 24 to 72 hours. Its central pressure value is expected to increase from about 1023hpa to 1026hpa, according to the GFS

model, from about 1023hpa to 1025hpa according to the ECMWF model and from 1023hpa to 1030hpa according to the UKMET model.

The heat lows over the central Sahel and neighboring areas are expected to deepen slightly, with their central values decreasing from about 1006hpa to 1004hpa according to the GFS model, from about 1006hpa to 1005hpa according to the ECMWF model and from about 1005hpa to 1004hpa according to the UKMET model. The seasonal lows across South Sudan and the neighboring areas are expected to remain moderate with central pressure values ranging from about 1003hpa to 1005hpa according to the GFS and UKMET models.

At the 850hpa level, an east-west oriented lower-level wind convergence is expected to prevail in the region between southern Chad and western Ethiopia during the forecast period. Dry northerly to northeasterly flow is expected to prevail over the western end of West Africa. The seasonal monsoon flow and its associated convergence is expected to remain active over parts of the Gulf of Guinea countries. The lower level wind convergences near the Congo boundary region are expected to re-strengthen towards end of the forecast period.

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2.0. Previous and Current Day Weather Discussion over Africa

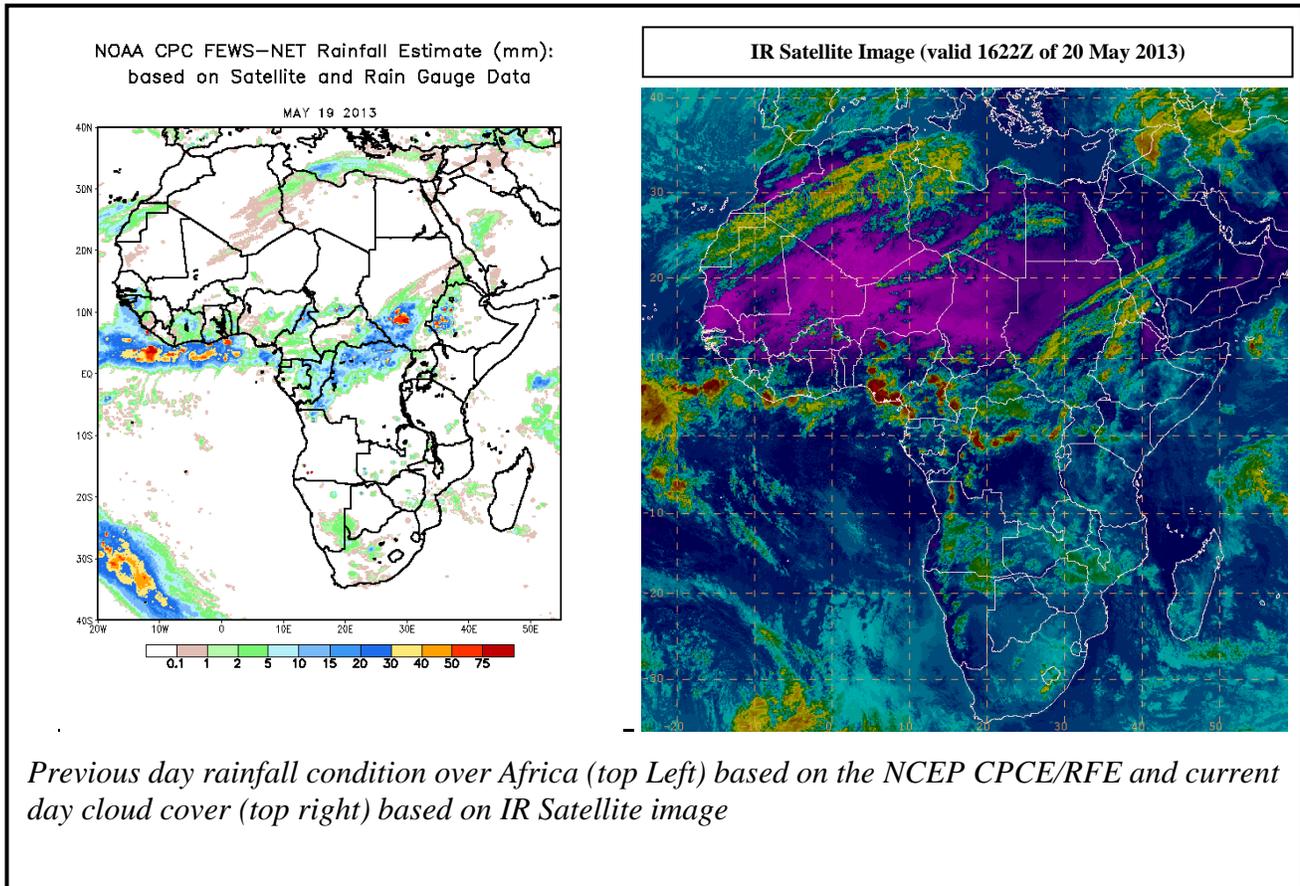
(19 May 2013 – 20 May 2013)

2.1. Weather assessment for the previous day (19 May 2013)

During the previous day, moderate to localized heavy rainfall was observed over parts of Guinea, Code d'Ivoire, Cameroon, Gabon, Congo, CAR, DRC, south Sudan and Ethiopia.

2.2. Weather assessment for the current day (20 May, 2013)

Intense patches of clouds are observed over parts of Liberia, Code d'Ivoire, Nigeria, Cameroon, Gabon, Congo, CAR, DRC, southern Sudan and Ethiopia.



Previous day rainfall condition over Africa (top Left) based on the NCEP CPCE/RFE and current day cloud cover (top right) based on IR Satellite image

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