

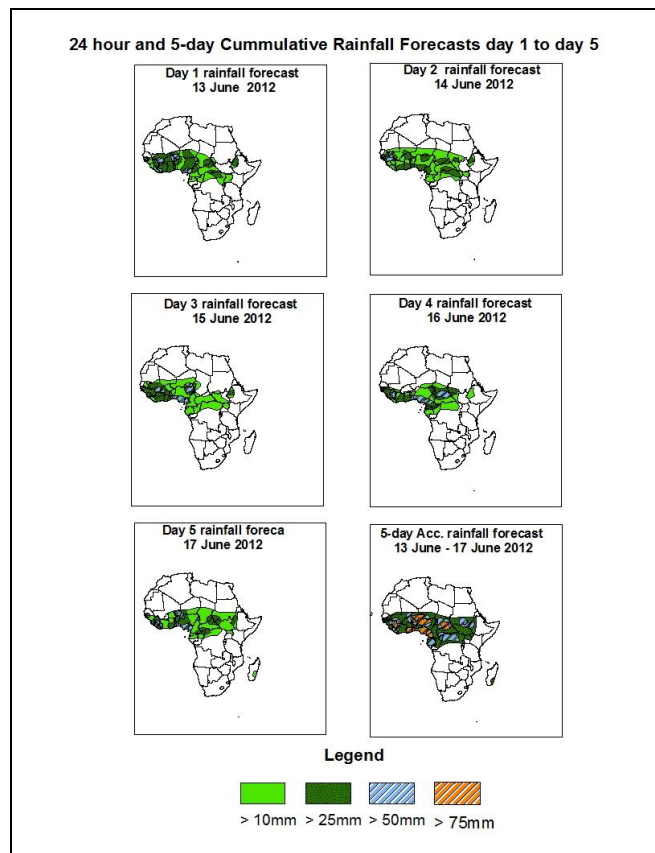


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 13 June – 06Z of 17 June 2012, (Issued at 13:00Z of 12 June 2012)

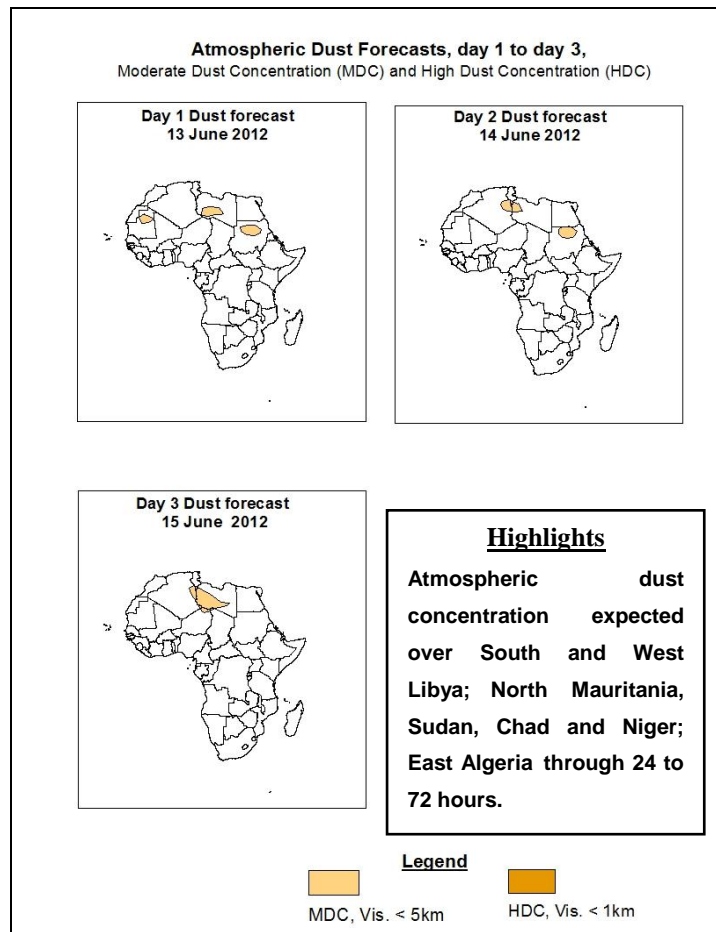
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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, ITD will continue its fluctuation between latitude 14°N and 20°N; with significant monsoon inflow and depth within 24 to 120 hours; Also the TEJ, AEW, AEJ associated deep monsoon inflow will enhance rainfall activities over Guinea Gulf Countries, Most Part of Sahel region and Central Africa.



1.3. Model Discussion: Valid from 00Z of June, 12th 2012.

According to the GFS, ECMWF and UKMET models the heat lows are expected to fill up over Mauritania and deepen over Mali, Niger, Chad and Sudan by shifting Northward through 24 to 120 hours.

According to GFS model, a thermal low over Central Mauritania (1004hpa) in 24 hours is expected to maintain its core value in 48 hours over East Mauritania, and increase to 1006hpa in 72 hours, then tends to slightly decrease to 1005hpa through 96 to 120 hours over West and North Mauritania. The second low over North Mali with a core value of 1003hpa in 24 hours is expected to slightly increase from 1004hpa to 1005hpa through 48 to 96 hours, and then tends to decrease to 1003hpa in 120 hours; the third low over North Chad is expected to maintain the same value through 48 to 120 hours while the low over North Sudan with a core value of 1004hpa in 24 hours is expected to decrease to 1002hpa within 48 to 120 hours.

The ECMWF model shows a thermal low over East Mauritania (1006hpa) in 24 is expected to slightly decrease to 1005hpa in 48 hours and tends to decrease from

1007hpa to 1003hpa within 72 to 120 hours. The second low over North Mali (1005hpa) through 24 to 48 hours is expected to decrease from 1007hpa to 1003hpa within 72 to 120 hours. The third low over North Niger Chad and Sudan (1005hpa) within 42 to 48 hours is expected to slightly decrease from 1006hpa to 1005hpa through 72 to 120 hours.

The UKMET model shows a thermal low over Central and North Mauritania (1005hpa) in 24 hours is expected to slightly decrease to 1004hpa in 48 hours over East Mauritania and slightly increases from 1005hpa to 1006hpa over East and South Mauritania within 72 to 120 hours. The second low over North Mali (1003hpa) in 24 hours is expected to slightly increase from 1004hpa to 1005hpa within 48 to 72 hours over South Algeria and North Mali and tends to slightly decreases from 1004hpa to 1003hpa through 96 to 120 hours. The third low over North Niger, Chad and Sudan (1004hpa) is expected to maintain its core value through 24 to 120 hours.

According to the UKMET model, the St. Helena High pressure system over South Atlantic Ocean with a core value of 1036hpa in 24 hours is expected to decrease to 1029hpa in 48 hours and decrease from 1034hpa to 1031hpa through in 72 to 120 hours. According to the ECMWF model, the central pressure value of 1035hpa in 24 hours tends to decrease from 1032hpa to 1029hpa within in 48 to 120 hours. According to the GFS model, the central pressure value of 1036hpa in 24 hours tends to decrease to 1030hpa in 48hours and increases to 1033hpa in 72 hours; then tends to decrease from 1030hpa to 1028hpa through 96 to 120 hours.

According to the GFS model, the Mascarene high pressure system over South Indian Ocean with its central pressure value of 1026hpa in 24 hours locate at longitude 80°E is expected to slightly decrease to 1025hpa in 48 hours by maintaining its position and increase to 1033hpa through 72 to 120 hours by shifting Eastwards (from 40°E to 60°E). According to the ECMWF model, the central pressure value of 1026hpa in 24 hours locates around longitude 80°E is expected to increase its core value from 1032hpa to 1033hpa through 48 to 72 hours by shifting eastwards (from 30°E to 50°E) and tends to decrease to 1031hpa within 96 to 120 hours. Lastly, according to the UKMET model of the Mascarene high pressure system over South Indian Ocean with its central pressure value of 1026hpa in 24 hours locate around longitude 80°E is expected to increase its core value from 1032hpa to 1034hpa through 48 to 120 hours by shifting Eastwards (from 30°E to 60°E).

At 925hpa level, zone of moderate dry Northerly and Northeasterly winds (20 to 50kts) are expected to prevail over North Mauritania, Niger, Chad and Sudan; East Algeria; West, South and Central Libya through 24 to 120 hours.

At the 850hpa level, a lower tropospheric wind convergence associated with significant West African Monsoon inflow and depth is expected to prevail over most parts of Cameroon, Chad, Central African Republic and Western Africa up latitude 20°N through 24 hours to 120 hours. The convergence associated with the meridional arm of the ITCZ is located over South part of South Sudan Republic, Western Uganda and North Democratic Republic of Congo 24 hours to 120 hours.

At 700hpa level, the African Easterly Jet (AEJ) with a core of 30 to 50 knots is expected to strength and locates over Between Southern and Western Sahel and Northern part of Guinea Gulf Countries within 24 to 120 hours with an African Easterly Waves propagating westwards and affecting most part of South and West Sahel and Guinea Gulf Countries through 24 to 120 hours.

At 500hpa level, a wave is expected to affect part of Ghana, Cote d'Ivoire, Senegal, Guinea Conakry, The Gambia, Guinea Bissau; South and West Burkina Faso; West within 24 to 120 hours.

At 150mb, the Sub-Tropical Westerly Jet is expected to weakens and shift Northwards I over Central and West Algeria, East Libya, North and West Egypt with a maximum core of 60 Knots. However, the Tropical Easterly Jet with a maximum core of 30 to 50 Knots appears from 48 to 120 hours and will affect Southern Chad and Guinea Gulf Countries, Part of Central African Republic.

In the next five days, ITD will continue its fluctuation between latitude 14°N and 20°N; with significant monsoon inflow and depth within 24 to 120 hours; Also the TEJ, AEW, AEJ associated deep monsoon inflow will enhance rainfall activities over Guinea Gulf Countries, Most Part of Sahel region and Central Africa.

Atmospheric dust concentration expected over South and West Libya; North Mauritania, Sudan, Chad and Niger; East Algeria through 24 to 72 hours.

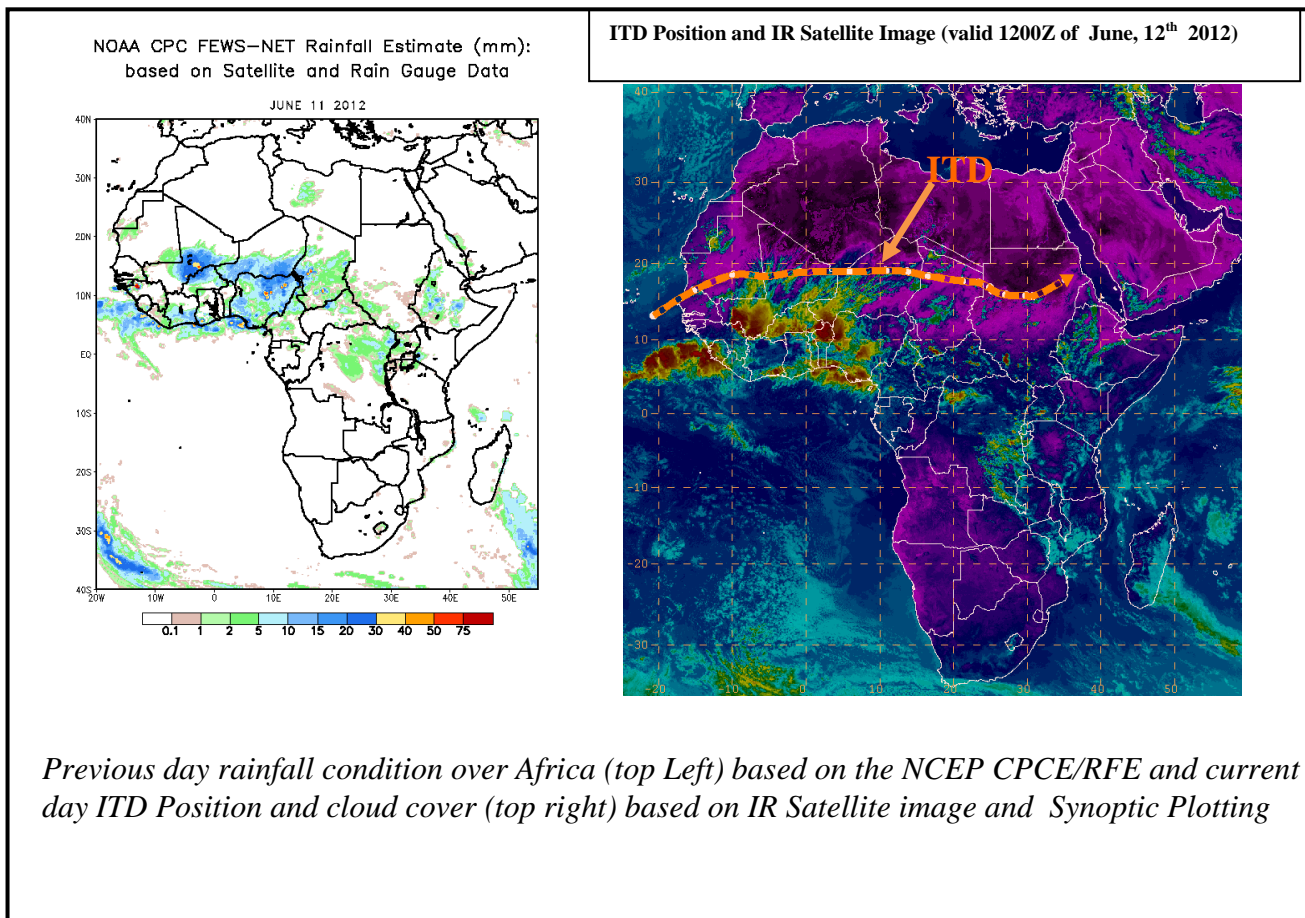
2.0. Previous and Current Day Weather Discussion over Africa (June, 11th 2012– June, 12th 2012)

2.1. Weather assessment for the previous day (June, 11th 2012)

During the previous day, moderate to heavy rainfall was observed across Northwest Guinea Conakry; Coastal Liberia; South Cote d'Ivoire; South and West Mali and Niger; North Burkina Faso; Part of Nigeria; North and West Cameroon; South Chad; Northeast Democratic Republic of Congo; North Central African Republic; West and Central Ethiopia.

2.2. Weather assessment for the current day (June, 12th 2012)

Convective activities observed across Coastal Sierra Leone; Western Mali and Niger; Southeast Cote d'Ivoire; Part of Burkina Faso; North and South Benin and Togo; West, Central and South Nigeria; Southwest Chad and South Sudan republic; South Uganda; North and East Democratic Republic of Congo.



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