

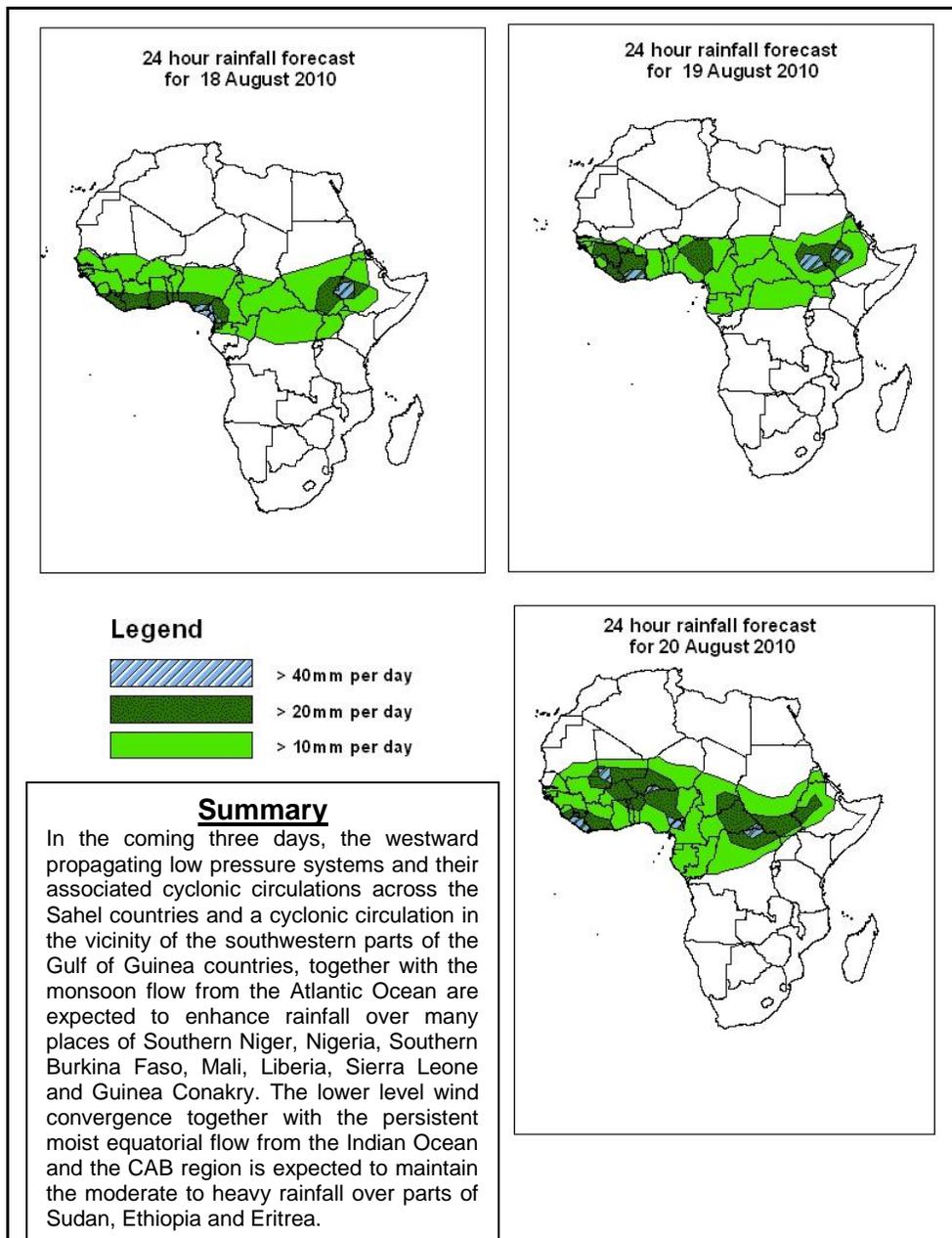


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 19 August – 06Z of 21 August 2010, (Issued at 14:00EST of 18 August 2010)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of 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.



1.2. Models Comparison and Discussion - Valid from 00Z of 18 August 2010

A low pressure system over Southern Algeria is expected to deepen from central pressure value of 1008 to 1005mb through 24 to 48 hours on the GFS model, changing from central pressure value of 1005 to 1007mb on the ECMWF model and slightly filling from central pressure value of 1002 to 1004mb on the UKMET model. Another low pressure system located over central Chad is expected to move towards eastern Niger in 48 hours, its central pressure filling up from value of 1003mb to 1006mb on the UKMET model. A low pressure system located over northern Sudan, with its central pressure value of 1000mb is expected to move towards northern Chad through 48 to 72 hours based on the UKMET model. This system is expected to fill up slightly from central pressure value of 1000mb to 1001mb on the UKMET model, through 48 to 72 hours. Another weak low pressure located over southern DRC is expected to fill up from central pressure values of 1003mb to 1007mb on the UKMET model and 1008mb to 1011mb on the ECMWF model through 24 to 72 hours.

The Azores high pressure system is expected to intensify from central pressure value of 1021mb in 24 hours to value of 1023mb in 72 hours, while its ridge expanding across the northern African countries. The St. Helena high is expected to intensify from central pressure value of 1019mb to 1028mb through 24 to 72 hours. The Mascarene high pressure system is expected to weaken from central values of 1031mb to 1029mb through 24 to 72 hours.

At 850mb, a cyclonic circulation over Southern Sudan is expected to move towards Southern Chad. Another cyclonic circulation located in region covering parts of Cote d'Ivoire, Liberia, Sierra Leone and Guinea Conakry is expected to move westwards into the Atlantic Ocean through 24 to 72 hours.

At 700hPa, a trough associated with the African Easterly wave is expected to move between the longitudinal positions of Togo/Benin and Mali/Burkina Faso through 24 to 72 hours. Another cyclonic circulation situated in the region bordering Sudan and Central African Republic is expected to move towards Chad through 24 to 72 hours. A weak cyclonic circulation over northeast Egypt is expected to persist through 24 to hours.

At 500HPa, strong winds in excess of 30Kts, which are associated with the African Easterly Jet, are expected in the vicinity of Southern Mali, Senegal and Guiney Conakry

through 24 to 72 hours. Another zone of strong easterly wind is expected over in Chad and Niger, and parts of Sudan, Ethiopia and Somalia.

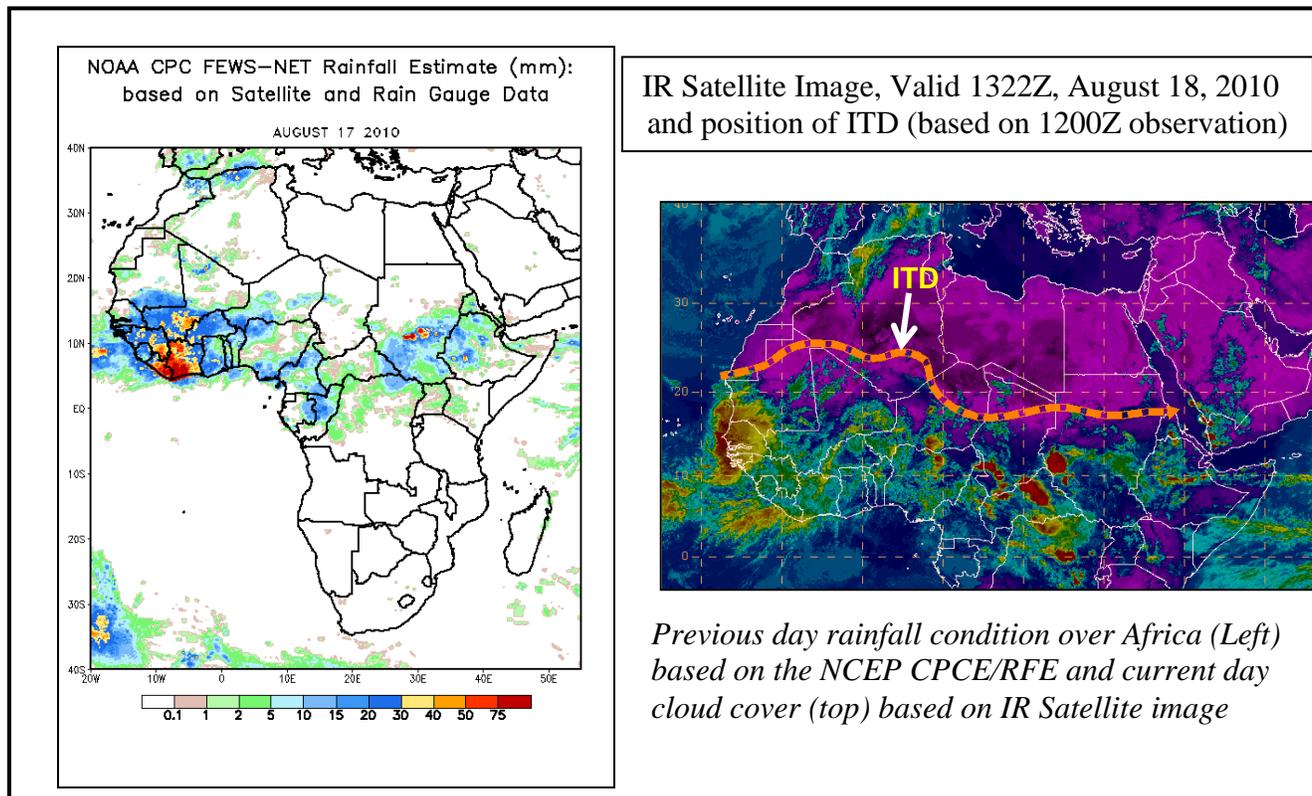
At 200hPa, a strong wind in excess of 50kts, which is associated with the Subtropical westerly Jet, is expected to dominate the flow over parts of western Morocco and the adjoining areas of Mediterranean area, including Southern Europe.

In the coming three days, the westward propagating low pressure systems and their associated cyclonic circulations across the Sahel countries and a cyclonic circulation in the vicinity of the southwestern parts of the Gulf of Guinea countries, together with the monsoon flow from the Atlantic Ocean are expected to enhance rainfall over many places of Southern Niger, Nigeria, Southern Burkina Faso, Mali, Liberia, Sierra Leone and Guinea Conakry. The lower level wind convergence together with the persistent moist equatorial flow from the Indian Ocean and the CAB region is expected to maintain the moderate to heavy rainfall over parts of Sudan, Ethiopia and Eritrea.

2.0. Previous and Current Day Weather Discussion over Africa (17 August 2010 – 18 August 2010)

2.1. Weather assessment for the previous day (17 August 2010): During the previous day, moderate to heavy rainfall was observed over parts of southern Mauritania, southern Mali, Burkina Faso, Cote d'Ivoire, Liberia, Sierra Leone, Guinea Conakry and southern Sudan and Ethiopia.

2.2. Weather assessment for the current day (18 August 2010): Intense clouds are observed over Mauritania, Senegal, Niger, Nigeria, Sudan, Central Africa Republic, northern DRC and Ethiopia.



Author(s): Diakaria Drame (Centre Meteorologique Principal de Bamako-Mali) / CPC-African Desk

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