



## Forecast Guidance for Africa

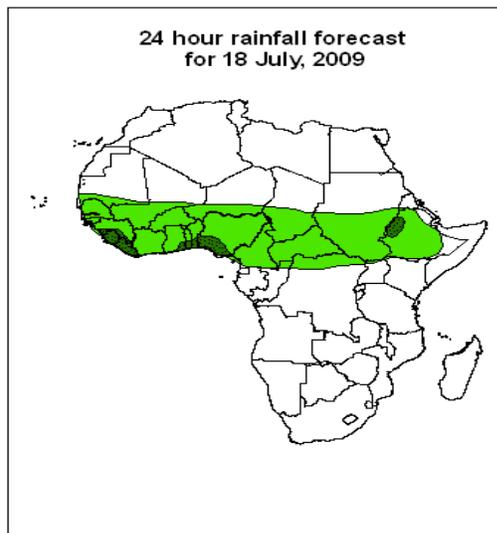
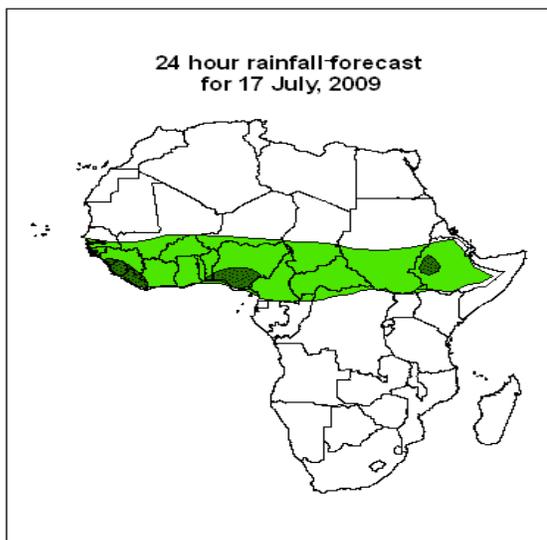
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

**FORECAST DISCUSSION 14H00 EST, 17 JULY, 2009**

**Valid: 00Z 18 JULY – 20 JULY, 2009**

### 1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceedance based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS), and expert assessment.

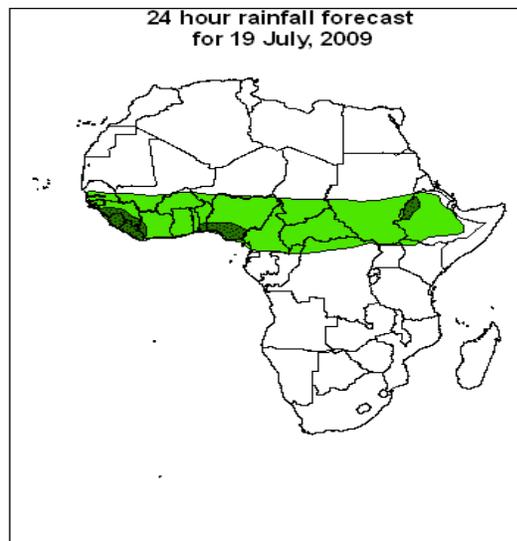


### Legend

-  africa\_countries\_new
-  > 20mm, with probability 70%
-  > 10mm, with probability 70%

### Summary

*The Mascarene anticyclone is expected to merge with the St Helena anticyclone over South Africa. In the northern hemisphere, localized convergence and confluent lines are expected to be persistent over Mali, Niger, Nigeria, Togo, Chad, Sudan, northern portions of DR Congo and Gulf of Eden.*



## **2. Model discussion**

*Model comparison (Valid from 00Z; 17July, 2009): all the three models are in general agreement especially with respect to the positioning of large scale features, however, the UK model tends to give lower values than both the GFS and ECMWF models especially in the Equatorial region (10°S and 10°N).*

### **2.1. Flow at 850hPa**

**T+24h:** The Mascarene anticyclone is expected to merge with the St Helena anticyclone over South Africa. In the northern hemisphere, localized convergence and confluent lines are expected to be persistent over Mali, Niger, Nigeria, Togo, Chad, Sudan, northern portions of DR Congo and Gulf of Eden.

**T+48h:** In the southern hemisphere, the subtropical anticyclone is expected to expand over southern Africa countries. In the northern hemisphere, the confluent lines over Mali are expected to extend towards Mauritania, while they are expected to maintain their previous day position elsewhere.

**T+72h:** In both hemispheres, no significant change is expected in the main flow pattern.

### **2.2. Flow at 500hPa**

**T+24h:** The flow associated with monsoon flow is expected to be persistent over portions of the Horn of Africa and the adjoining areas of Arabian Sea.

**T+48h:** The flow associated with the monsoon flow is expected to be persistent over the Horn of Africa.

**T+72h:** no significant change in the main flow pattern.

### **2.3. Flow at 200hPa**

**T+24h:** The easterly flow over equatorial regions of Africa is expected to persist.

**T+48h:** The upper level easterly flow is expected to be persistent over eastern and central African region, while a disturbed flow is expected over western portion of equatorial Africa

**T+72h:** The easterly flow over equatorial regions of Africa is expected to persist.

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