

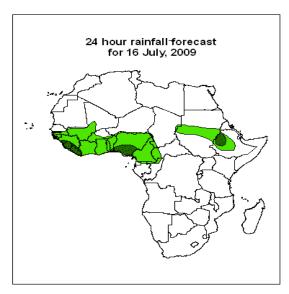
Forecast Guidance for Africa

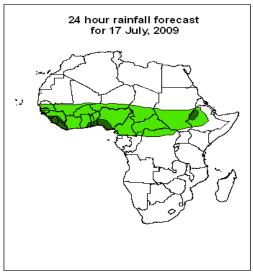
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 15 JULY, 2009 Valid: 00Z 16 JULY – 18 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.





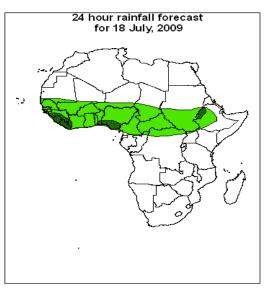
Legend

africa_countries_new
> 20mm, with probability 70%

> 10mm, with probability 70%

Summary

The center of the Mascarene anticyclone is expected to be over east of the eastern coast of Madagascar, while the St. Helena anticyclo ne is expected to be centered over Southern eastern Atlantic. In the northern hemisphere localized convergence and confluent lines are expected to be persistent over Mali, Mauritania, Niger, Chad, Sudan, and Ethiopia.



2. Model discussion

Model comparison (Valid from 00Z; 15 July, 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 center of the Mascarene anticyclone is expected to be over east of the eastern coast of Madagascar, while the St. Helena anticyclone is expected to be centered over Southern eastern Atlantic. In the northern hemisphere localized convergence and confluent lines are expected to be persistent over Mali, Mauritania, Niger, Chad, Sudan, and Ethiopia.

T+48h: The ridge associated with the Mascarene Anticyclone is expected to weaken, while the St. Helena Anticyclone is expected to move towards South Africa. In the northern hemisphere, the confluence lines over northern Mali are expected to extend towards Mauritania, while they are expected to maintain their previous day position elsewhere.

T+72h: In the southern hemisphere, the remnant of the ridge of the Mascarene Anticyclone is expected to merge with St. Helena Anticyclone over southeastern portions of South Africa.

2.2. Flow at 500hPa

T+24h: The flow over the southern African countries is expected to be dominated by a trough in the westerly

T+48h: The westerly trough is expected to move slightly to the east.

T+72h: The westerly trough is expected to move further to the east.

2.3. Flow at 200hPa

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

T+48h: No significant change is expected in the main flow pattern.

T+72h: No significant change is expected in the main flow pattern.

Authors:

- 1. Khalid Muwembe (UGANDA MET / Uganda and African Desk).
- 2. Mamadou Savadogo (Direction de la MET Burkina and African Desk)