



Forecast Guidance for Africa

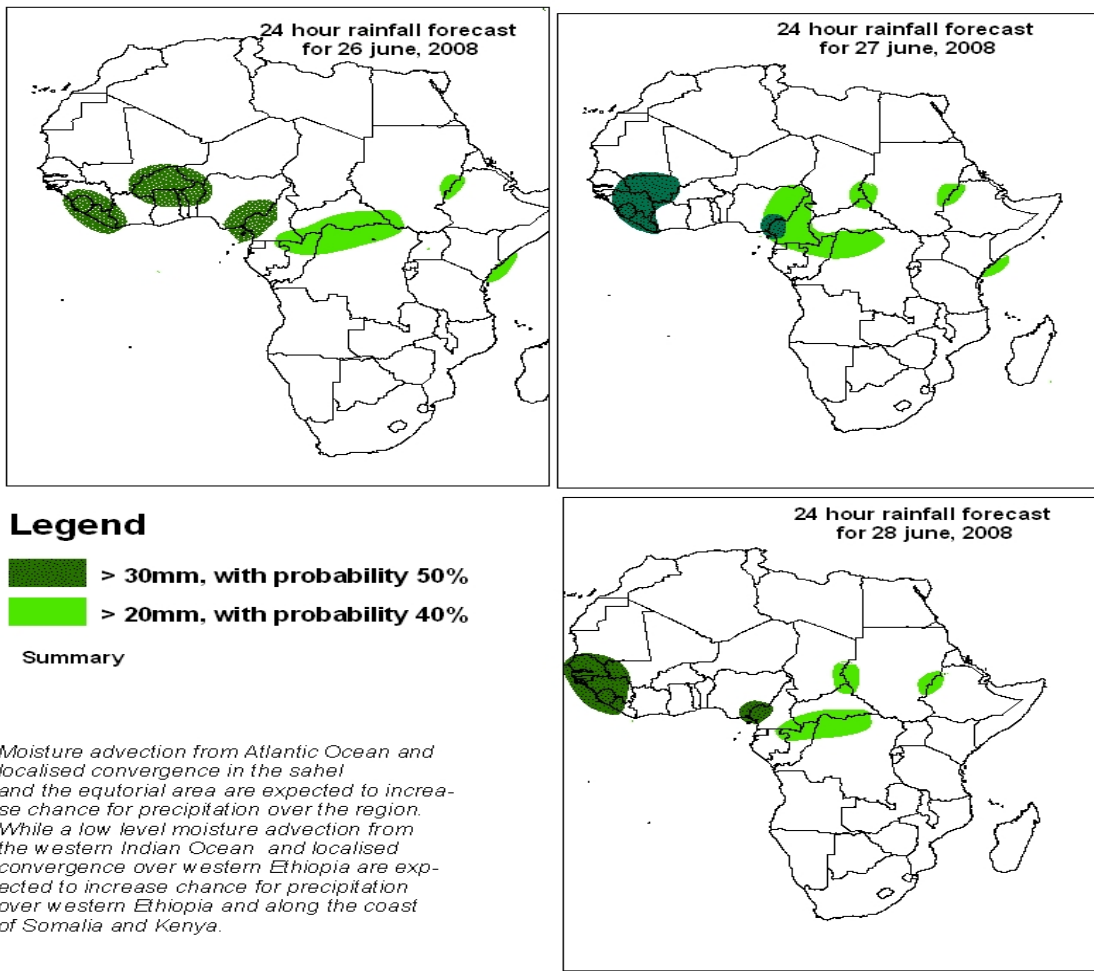
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 25 JUNE 2008

Valid: 00Z 26- 28 JUNE, 2008

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.



2. Model discussion

Model comparison (Valid from 00Z; 25 June 2008): all the three models are in agreement especially with respect to the positioning of large scale features, although UK model gives lower values as always in the Equatorial (10°N and 10°S) Continental Africa.

2.1. Flow at 850hPa

850 hpa:

T+24h, an anticyclonic flow pattern is expected to dominate over a large part of north Africa with a ridge over the northwestern part resulting into north easterlies, that converge over the general low pressure area of the Sahel and central Africa with the south easterlies emanating from an anticyclone centered over southern Africa. Southeasterlies from the southern western Indian Ocean north of Madagascar are expected to turn into south westerlies along the coast of Somalia. A cyclonic system is expected over the tip of southern Madagascar with a westerly flow to the south of southern Africa.

T+48h, two anticyclonic circulation patterns are expected to prevail over a large part of the African continent from North to southern Africa separated over the Sahel and central Africa, by a general low pressure area where by the north easterlies from north Africa will converge with south easterlies from southern Africa. Along the coastline of eastern Africa, Southeasterlies from the southern western Indian Ocean are expected to turn into south westerlies. Westerlies are expected to dominate over the tip of southern Africa along with a cyclonic system over southern Madagascar which will be influenced by a ridge from the south eastern Indian Ocean.

T+72h , the flow system is expected to be similar to that of the previous day, but the anticyclone over southern Africa is expected to and allow the cyclonic flow over the tip of southern Africa and south western Madagascar to expand and more eastwards.

2.2. Flow at 500hPa

T+24h, an axis of anticyclones is expected to be located over North Africa from Morocco through northern Chad to Eritrea with a trough over Libya and north western Egypt. An anticyclonic flow system is expected to be centered over southern Africa and ridge southeastwards with a westerly flow to its south. While a cyclonic system in the westerlies is expected to influence over Madagascar.

T+48h, an anticyclonic circulation patterns are expected to prevail over North West Africa with a trough to its east over Libya and Egypt. An anticyclonic system is expected to develop along the coast of Namibia, while westerlies are expected to prevail to the south with as embedded cyclonic system over Madagascar, move to south eastern.

T+72h, anticyclone circulation patterns are expected to prevail over the Africa continent with a trough over Libya and Somalia. A cyclonic vortex is expected to develop between Angola and Zambia; while Westerlies are expected to dominate southwards of the tip of southern Africa.

2.3. Flow at 200hPa

T+24h, a large part of the continent is expected to be dominated by anticyclonic flow patterns on either side of the equator with easterlies along the near equatorial latitudes, and westerly waves with embedded troughs over North Pole ward of the subtropical anticyclones.

T+48h, the flow is expected to be similar to the (T+24h) flow pattern but the trough is expected to move west to Tunisia and south western Libya and a cyclonic system is expected to dominate a large part of south western Africa from southern through DRC, Rwanda, Burundi to Somalia; with westerlies over the remaining part of southern Africa.

T+72h, the flow is expected to be similar to the (T+24h) flow pattern but the trough over Libya will move further to the west into Tunisia and eastern Algeria.

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