



Forecast Guidance for Africa

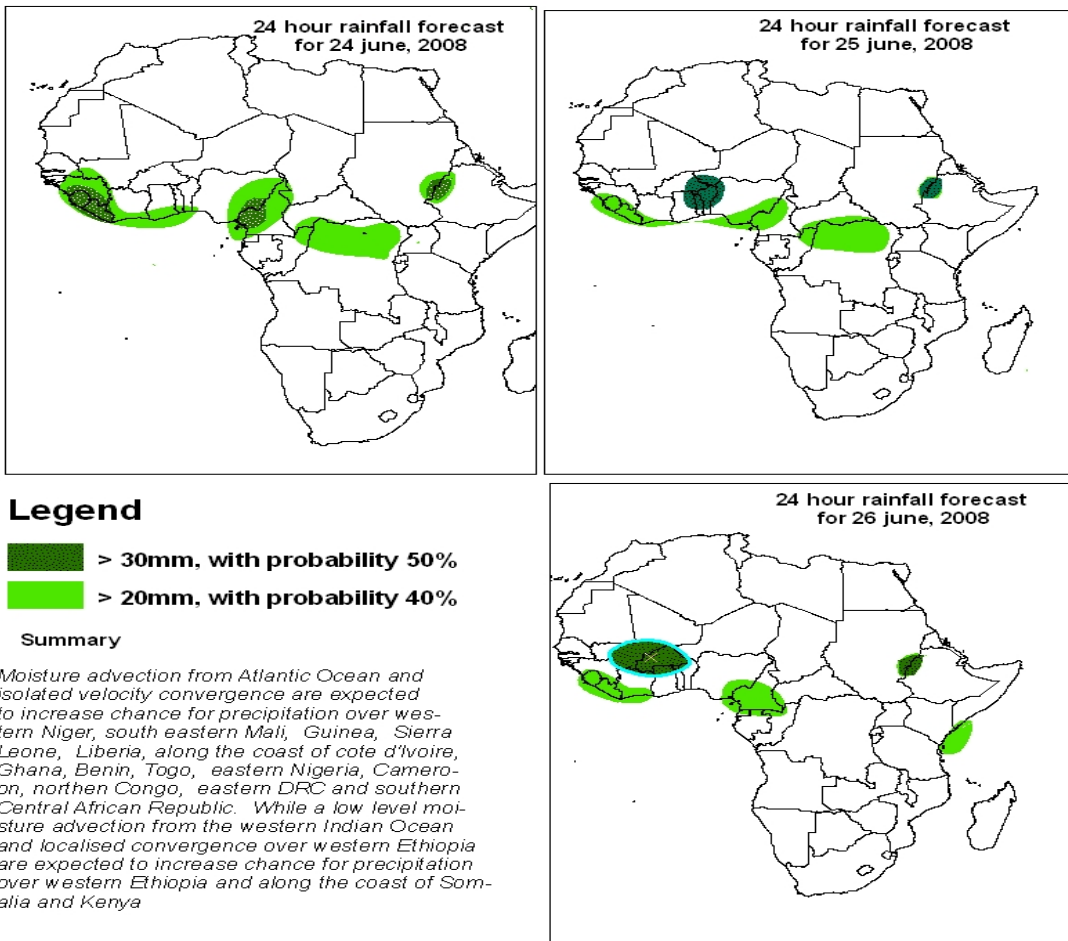
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 23 JUNE 2008

Valid: 00Z 24- 26 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; 23 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 resulting into north easterlies from Morocco to Egypt with a ridge over western Algeria and over Mauritania, through the Gulf of Guinea to southern Africa and Madagascar. A general low pressure area with isolated convergence is expected to influence the Sahel including Central Africa; and Southeasterlies from the south western Indian Ocean are expected to turn into southwesterlies, along the eastern Africa coast.

T+48h, an anticyclonic flow pattern is expected to persist over a large part of the African continent from North to southern Africa, with an exception of a general low pressure area over the Sahel, including Central Africa where there will be isolated convergence. Southeasterlies from the south western Indian Ocean are expected to turn into south westerlies along the coast of Somalia.

T+72h an anticyclonic flow pattern is expected to prevail over a large part of north Africa from Morocco, through Algeria, Tunisia, Libya to Egypt; and over a large part of western Africa from Mauritania, through the Gulf of Guinea to southern Africa and Madagascar. A general low pressure area with isolated convergence is expected to dominate over the Sahel including Central Africa. Southeasterly trades are expected to turn into southwesterly trades over Tanzania, Kenya, Burundi, Rwanda, DRC, Somalia and eastern Ethiopia, and westerlies are expected to prevail in the region south of the tip of Southern Africa.

2.2. Flow at 500hPa

T+24h, an extensive anticyclonic flow pattern is expected to dominate over a large part of the African continent from North Africa to southern Africa with easterlies in the equatorial latitudes, while westerlies with embedded troughs are expected pole wards of the subtropical anticyclones, as well as over north Egypt Libya, southern Tunisia and eastern Algeria surrounding southern Africa.

T+48h, A similar anticyclonic flow pattern will dominate a large part of Africa as that at T+24h, except that the trough over northern Africa will thin out and develop a vortex over northern Egypt while westerlies over the southern hemisphere will surround southern Africa.

T+72h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the African continent with a trough over Egypt and northern east Libya. While westerlies are expected to influence the remaining part of southern Africa with a sharp trough along the west of Angola and Namibia

2.3. Flow at 200hPa

T+24h, a large part of the continent will be dominated by an anticyclonic flow system on either side of the equator with easterlies along the near equatorial latitudes, while waves and sharp troughs are expected to be embedded in the westerlies pole-ward of the subtropical anticyclones (over north Libya in the north hemisphere and along the coast of Tanzania, Kenya and Somalia over eastern Africa).

T+48h, “Similar to above” but the trough over eastern Africa will extend to Rwanda, Burundi, Uganda, Kenya and Tanzania.

T+72h, “Similar to above” but the trough over eastern Africa will extend to eastern DRC, Rwanda, Burundi and Uganda.

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