



Forecast Guidance for Africa

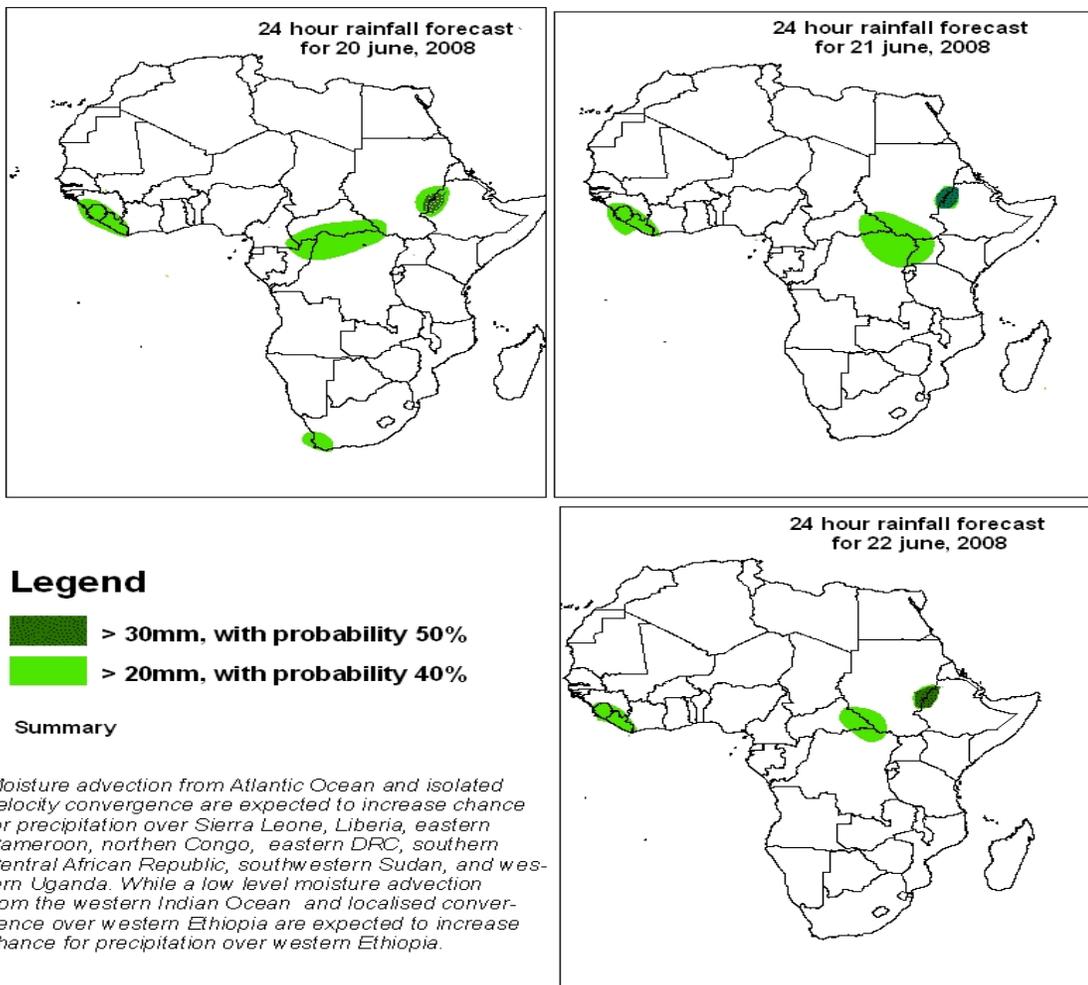
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 19 JUNE 2008

Valid: 00Z 20- 22 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; 19 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

T+24h, an anticyclonic flow pattern covering a large part of Southern Africa from the western Indian Ocean south of Madagascar to Angola will cause southeasterly trade wind flow inland that will turn into southwesterly trade winds at around the Equator. A closed cyclonic flow system is expected to develop along the western part of Namibia and southwestern South Africa resulting into a line of convection over there.

T+48h, a northeasterly flow pattern is expected to move to eastern part of North Africa due to the expanding cyclonic flow pattern that is developing over the western side of North Africa (Morocco and Algeria) and localized convergence over the Sahel and Central Africa. The cyclonic flow pattern over western Namibia and southwestern South Africa is expected to move slightly eastwards to southwestern Botswana, thereby reducing the westward extent of the anticyclonic system to the east over the western Indian Ocean.

T+72h, no major changes are expected in the flow pattern over Africa north of the Equator, north easterlies are expected to prevail over the eastern part of North Africa as well as the cyclonic flow pattern to the west and the localized convergence over the Sahel. Further to the South, a cyclonic flow pattern is expected to develop off the coast of Angola and another one over southeastern South Africa while the remaining part of Southern Africa will be influenced by the anticyclonic flow pattern over the western Indian Ocean.

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 at approximate latitude 20°S with an exception of a trough that is expected to prevail over the eastern part from eastern Ethiopia, along the coast of Somalia, eastern Kenya, Tanzania, Rwanda, Burundi and over south eastern DRC; while westerly flow over the remaining part of Southern Africa including Namibia and Botswana.

T+48h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the African continent with a trough over south eastern DRC, Rwanda, Burundi, eastern Ethiopia, Somalia, Kenya, Tanzania and northern Mozambique. A westerly flow pattern is expected to persist over the remaining part of Southern Africa including, Namibia, Botswana and southern Mozambique.

T+72h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the African continent north of latitude 20°N with a trough over north Egypt and over south eastern DRC, Rwanda, Burundi, northern Ethiopia, Somalia, Kenya, Tanzania and northern Mozambique; while westerlies are expected to influence the remaining part of southern Africa from Namibia, Botswana to Southern Africa.

2.3. Flow at 200hPa

T+24h, an upper level anticyclonic flow pattern is expected to dominate over a large part of the African continent through the Subtropical region to 10°S latitude with a cyclonic flow pattern over DRC, Rwanda, Burundi, Uganda southern Ethiopia, Kenya Somalia and Tanzania. Westerlies are expected over the remaining part of Southern Africa.

T+48h, an upper level anticyclonic flow pattern is expected to prevail over a large part of Africa through the Subtropical region to 20°S latitude (including Sahel, Central Africa). A cyclonic flow pattern is expected to dominate over Rwanda, Burundi, Uganda southern Ethiopia, Kenya, Somalia and Tanzania with westerlies over the remaining part of southern Africa.

T+72h, an upper level anticyclonic flow pattern is expected to dominate over a large part of the African continent through the Subtropical region to 10°S latitude with a cyclonic flow pattern over DRC, Rwanda, Burundi, Uganda southern Ethiopia, Kenya Somalia and Tanzania. Westerlies will continue to persist over the remaining part of Southern Africa.

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