



Forecast Guidance for Africa

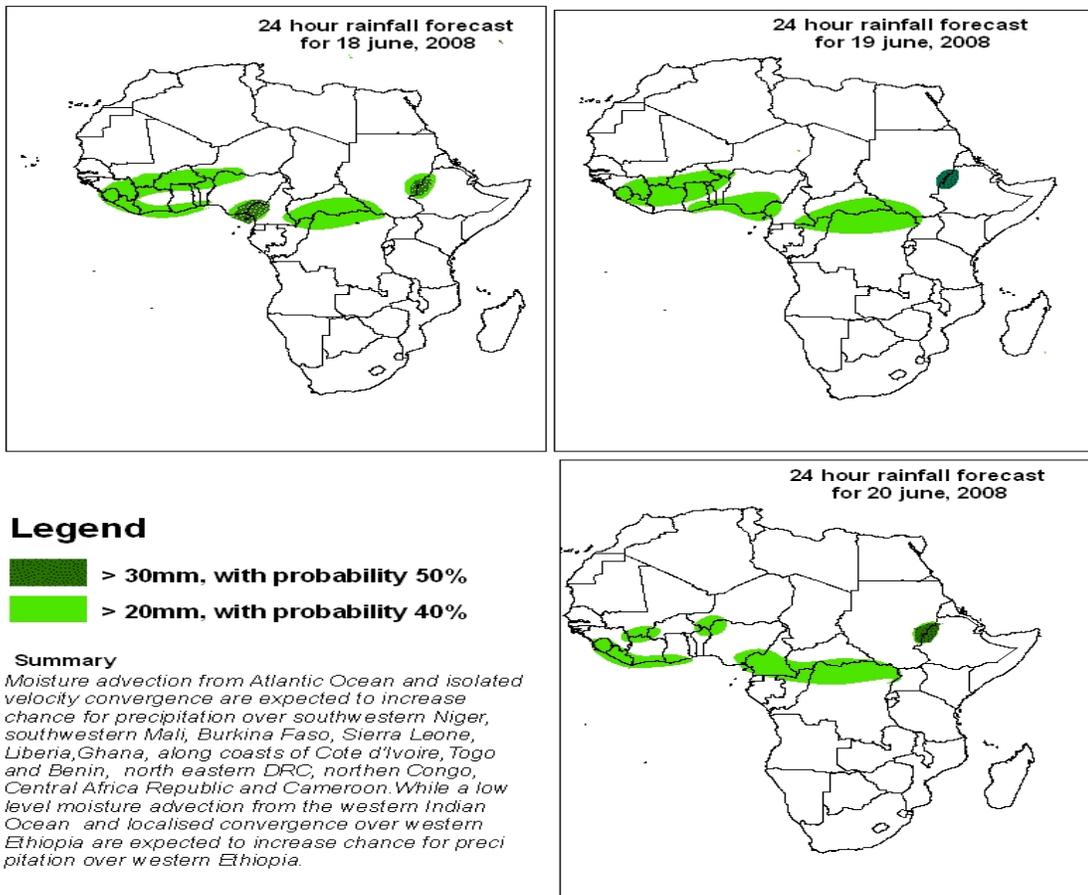
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 17 JUNE 2008

Valid: 00Z 18- 20 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; 17 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 is expected to dominate over a large part par of North Africa with a cyclonic flow pattern over Morocco. Isolated convergence is expected to take place in the Sahelian countries while southeasterlies are expected to dominate over the coasts of Kenya and Tanzania, and southwesterlies to dominate along the coast of Somalia. A closed cyclonic circulation system is expected to dominate over southwestern Angola, western Namibia while an anticyclonic flow pattern is expected to dominate over the remaining part of southern Africa from southern DRC to Madagascar and South Africa and sustain southeasterlies towards the Gulf of Guinea.

T+48h, an anticyclonic flow pattern is expected to prevail over a large part of North Africa with a cyclonic flow pattern over Morocco and southern Algeria. Isolated convergence line is expected to prevail in the Sahelian countries as well as Southeasterlies over the coasts of Kenya and Tanzania and southwesterlies along the coast of Somalia. A cyclonic flow pattern is expected to prevail over western Namibia and western South Africa while an anticyclonic flow pattern is expected to prevail over the eastern part of Southern Africa from Angola to Madagascar and South Africa.

T+72h, a cyclonic flow pattern is expected to dominate over northern Morocco, Algeria and northern Mali with an anticyclonic flow pattern over Western Sahara and north easterlies over Libya and Egypt. A convergent line is expected to dominate from western Niger through Chad to eastern Sudan. Southeasterlies are expected to prevail over the coasts of Kenya and Tanzania while southwesterlies are expected to prevail along the coast of Somalia. An anticyclonic flow pattern is expected to prevail over a large part of Southern Africa with a cyclonic flow pattern to its west over western Namibia and southwestern South Africa.

2.2. Flow at 500hPa

T+24h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the Africa continent from North Africa to southern Africa with an exception of a trough over eastern Ethiopia and along the coast of Somalia; while a cyclonic circulation flow pattern is expected to dominate over the remaining part of Southern Africa including Angola, Namibia, southern Zambia, Botswana, Zimbabwe and southern Mozambique.

T+48h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the African continent with a trough over eastern Ethiopia and Somalia; while a cyclonic circulation flow pattern is expected to dominate over Southern Africa including, Namibia, Botswana, southern Mozambique and southern Madagascar.

T+72h, an extensive anticyclonic flow pattern is expected to prevail over a large part of the African continent with a trough over eastern Ethiopia and Somalia; while a cyclonic circulation system pattern is expected to dominate over Kenya, Tanzania, northern Mozambique and over Madagascar. Westerlies are expected to dominate over Namibia and Botswana with a cyclonic system over the tip of 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 with a trough from Uganda, through Kenya to Somalia; while a westerly flow pattern is expected to dominate over the remaining part of Southern Africa.

T+48h, an upper level anticyclonic flow pattern is expected to dominate over Africa and over the Subtropical region up to 20S latitude (including Sahel, Central Africa), with a cyclonic flow pattern over Uganda, Kenya, southern Ethiopia and Somalia ; while a westerly flow pattern is expected to dominate over the remaining part of southern Africa.

T+72h, an upper level anticyclonic flow pattern is expected to dominate from north Africa through the Subtropical region to latitude 20S, including the Sahel region, Central and eastern Africa, with a trough from northwestern DRC, through Rwanda, Burundi to southern Ethiopia and Somalia; while a westerly flow pattern is expected to dominate over the remaining part of southern Africa.

Authors:

1. Arlindo Meque (“Instituto Nacional de Meteorologia” (INAM), Mozambique and African Desk).

2. Hilaire Elenga (Direction de la Meteorologie Nationale du Congo Brazzaville and African Desk)