



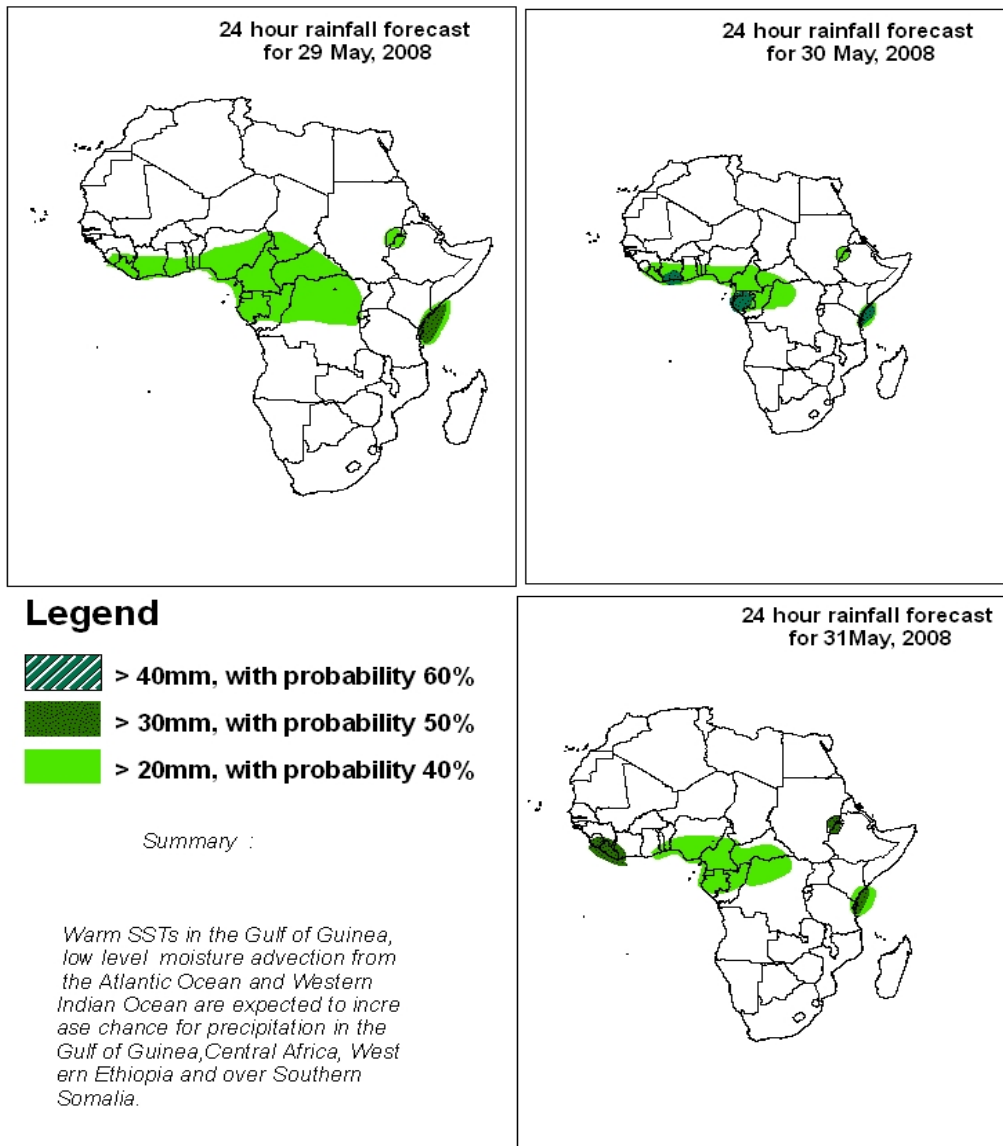
Forecast Guidance for Africa

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

FORECAST DISCUSSION 14H00 EST, 28 MAY 2008
Valid: 00Z, 29-31 MAY, 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; 28 May 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 Morocco, western Sahel (over Mauritania, Senegal, Guinea-Bissau and Guinea), Libya and Egypt with a trough in between over Algeria and Tunisia while a general low pressure area is expected to dominate over the remaining part of the Sahel including Central Africa. An anticyclonic circulation is expected to dominate over the Equatorial western Indian Ocean causing southeasterlies over the coasts of Kenya and Tanzania and southwesterlies along the coast of Somalia. A cyclonic circulation system is expected to dominate off the coast of Angola, Namibia and South Africa while an anticyclonic flow pattern is expected to dominate over continental Southern Africa and into the western Indian Ocean with a shallow trough lying in the Mozambique Channel.

T+48h, an anticyclonic flow pattern is expected to dominate over northern Africa from Morocco trough Algeria, Tunisia to Libya with northerlies over Egypt while a general low pressure area is expected to prevail over a large part of the Sahel with an exception over western Mauritania and Senegal where an anticyclonic flow pattern is expected to dominate. An anticyclonic flow pattern is expected to prevail over a large part of Southern Africa with a low pressure off the coast of Angola and a trough over southwestern Namibia and South Africa.

T+72h, an anticyclonic flow pattern is expected to dominate over a large part of North Africa including western Sahel (from the coast of Senegal to eastern Nigeria) with a trough over Morocco and northwestern Algeria. A general low pressure area is expected to prevail over the remaining part of the Sahel with convergence activity off the coast of Liberia due to southeasterlies in the Atlantic Ocean that turns into westerlies and southeasterlies emanating from the Indian Ocean. An anticyclonic flow pattern is expected to prevail over a large part of Southern Africa with a trough over southern Namibia and southwestern South Africa.

2.2. Flow at 500hPa

T+24h, an extensive anticyclonic flow pattern is expected to dominate over North Africa from latitude 10°S with a trough over Egypt. A westerly flow pattern is expected to dominate over Angola, Zambia and northern Mozambique while northwesterlies are expected to dominate over southern Namibia and western South Africa due to a trough over southwestern coast of South Africa in the Atlantic Ocean. A low pressure center is expected to dominate over southern Madagascar stretching into Central and southern Mozambique while a high pressure center is expected to dominate south of the low pressure center over southern Madagascar.

T+48h, an extensive anticyclonic flow pattern is expected to prevail over a large part of North Africa from latitude 10°S with a trough off the coast of Morocco and a low pressure

over Egypt. Northwesterlies are expected to prevail over Namibia and South Africa due to a trough over southwestern South Africa. A low pressure center is expected to prevail over southern Madagascar with a high pressure center to the southeast.

T+72h, an extensive anticyclonic flow pattern is expected to dominate over a large part of Africa in both hemispheres, with a low pressure off the coast of Morocco, over Liberia, Somalia and southern Madagascar, and a trough over southwestern South Africa that will contribute to northwesterlies over Namibia and South Africa.

2.3. Flow at 200hPa

T+24h, a westerly flow pattern is expected to dominate over a large part of North Africa with an embedded trough over Egypt, while an upper level anticyclonic flow pattern is expected to dominate over the Sahel including Central and Eastern Africa with a divergent flow pattern over Nigeria. A westerly flow pattern is also expected to dominate over a large part of Southern Africa with an upper level trough over southern Madagascar.

T+48h, a westerly flow pattern is expected to prevail over a large part of North Africa while an upper level anticyclonic flow pattern is expected to prevail over the Sahel including Central and Eastern Africa. Westerlies are expected to prevail over a large part of Southern Africa with an upper level trough over southwestern South Africa and another one over Madagascar.

T+72h, a westerly flow pattern is expected to prevail over a large part of North Africa with an embedded deep upper level trough over eastern Libya. An extensive upper level anticyclonic flow pattern is expected to dominate over the Sahel including Central and Eastern Africa and part of Southern Africa (over Angola, Zambia, Zimbabwe and northern Mozambique), with a divergent flow pattern over Liberia and over southwestern Chad. Westerlies are expected to prevail over the remaining part of Southern Africa with an upper level trough over southwestern South Africa and another one over eastern Madagascar.

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