



Forecast Guidance for Africa

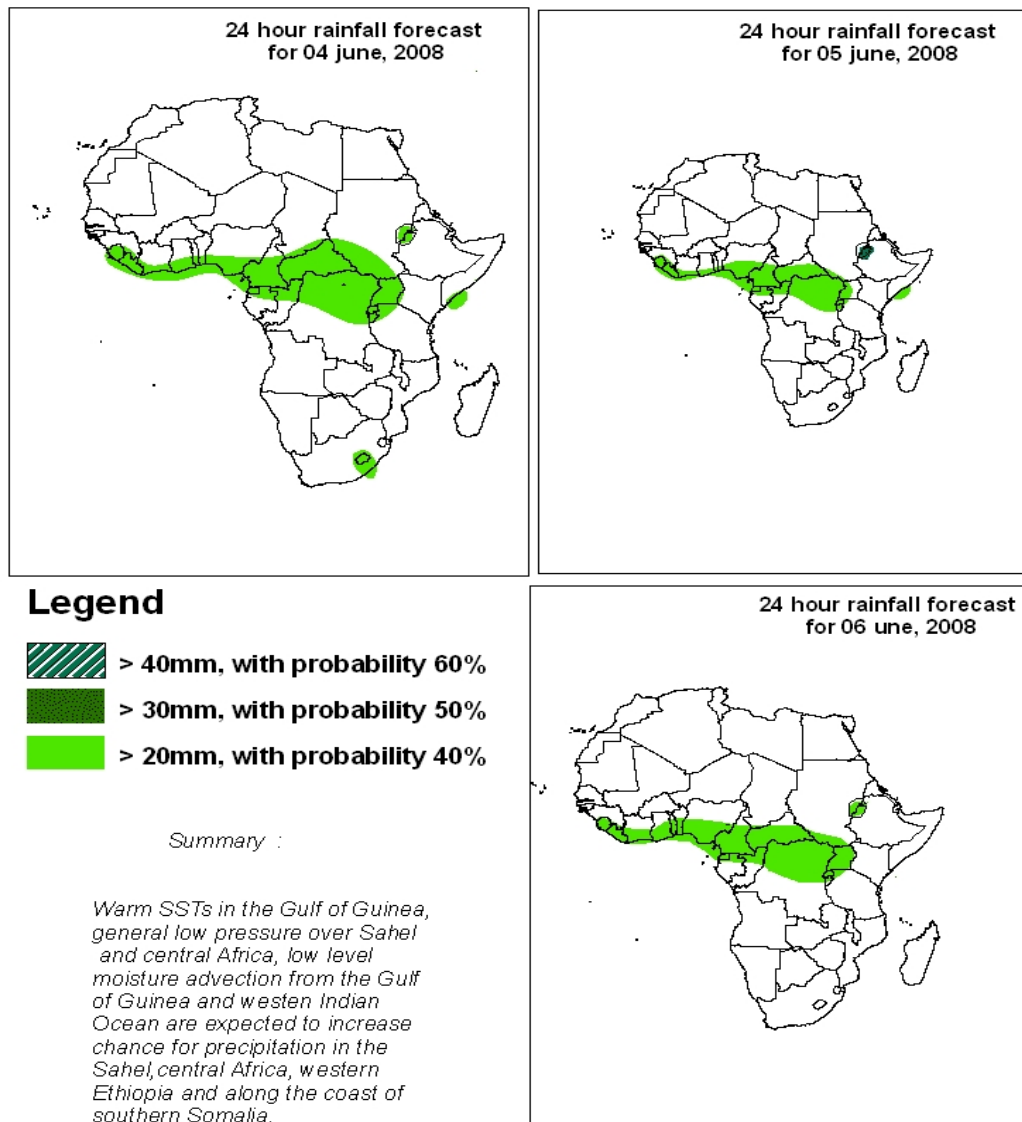
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 03 JUNE 2008

Valid: 00Z, 04 -06 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; 03 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 of North Africa with a low pressure over Morocco and western Algeria and a trough over northern Libya. A general low pressure area is expected to dominate over the Sahel and the DRC while an anticyclonic flow pattern is expected to dominate over the Equatorial western Indian Ocean. A low pressure center is expected to dominate off the coast of Angola and another one over southwestern Botswana and South Africa, while a trough is expected to dominate off the coast of Madagascar. An anticyclonic flow pattern is expected to dominate over the remaining part of Southern Africa.

T+48h, an anticyclonic flow pattern is expected to prevail over a large part of North Africa with a low pressure over Morocco and western Algeria, while a general low pressure area is expected to prevail over the Sahel and northeastern DRC. An anticyclonic flow pattern is expected to prevail over the Equatorial western Indian Ocean and another one over Southern Africa with a trough along the coast of South Africa in the Atlantic and Indian Oceans.

T+72h, an anticyclonic flow pattern is expected to prevail over the eastern part of North Africa (over Libya and Egypt) with a low pressure to the west over Morocco and Algeria, while a general low pressure area is expected to prevail from the Sahel to the lake Victoria basin. An anticyclonic flow pattern is expected to prevail over the Equatorial western Indian Ocean with another one over a large part of Southern Africa, and a trough surrounding South Africa from the Atlantic Ocean to western Indian Ocean.

2.2. Flow at 500hPa

T+24h, an anticyclonic flow pattern is expected to dominate over a large part of North Africa including the Sahel with a trough off the coast of Morocco, while a low pressure system is expected to dominate over the Horn of Africa. An elongated meridional trough is expected to dominate a large part of western Southern Africa flanked to the west by a ridge in the Atlantic Ocean and by a high pressure center to the east from the Mozambique Channel to the southwestern Indian Ocean.

T+48h, an extensive anticyclonic flow pattern is expected to dominate over Africa north of the Equator with a shallow trough over Morocco and a low pressure center over Somalia. An extensive trough is expected to dominate over western Zambia, eastern Botswana, South Africa, Zimbabwe and Mozambique with high pressure center on either side.

T+72h, an anticyclonic flow pattern is expected to prevail over a large part of North Africa including the Sahel with a trough off the coast of Morocco. A low pressure center is expected to dominate over a large part of Central Africa (southern Cameroon, Gabon and Congo) and Eastern Africa (over Uganda, eastern Ethiopia and Somalia), while an

anticyclonic flow pattern is expected to dominate over a large part of Southern Africa with a trough over Mozambique stretching into eastern Tanzania and a low pressure over southeastern coast of South Africa.

2.3. Flow at 200hPa

T+24h, westerlies are expected to dominate over North Africa with a trough off the coast Morocco. An upper level anticyclonic flow pattern is expected to dominate over the Subtropical region between latitudes 20N to 20S (including Sahel, Central and eastern Africa); while a westerly flow pattern is expected to dominate over the remaining part of Southern Africa.

T+48h, westerlies are expected to dominate over North Africa with a trough over north Morocco. An upper level anticyclonic flow pattern is expected to dominate over the Subtropical region between latitudes 20N to 20S (including Sahel, Central and eastern Africa); while a westerly flow pattern is expected to dominate Namibia, southern Botswana and over South Africa.

T+72h, westerlies are expected to dominate over northern Africa. An upper level anticyclonic flow pattern is expected to dominate over the Subtropical region between latitudes 20N to 20S (including Sahel, Central and eastern Africa); while a westerly flow pattern is expected to dominate Namibia, southern Botswana and over South Africa.

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