



Forecast Guidance for Africa

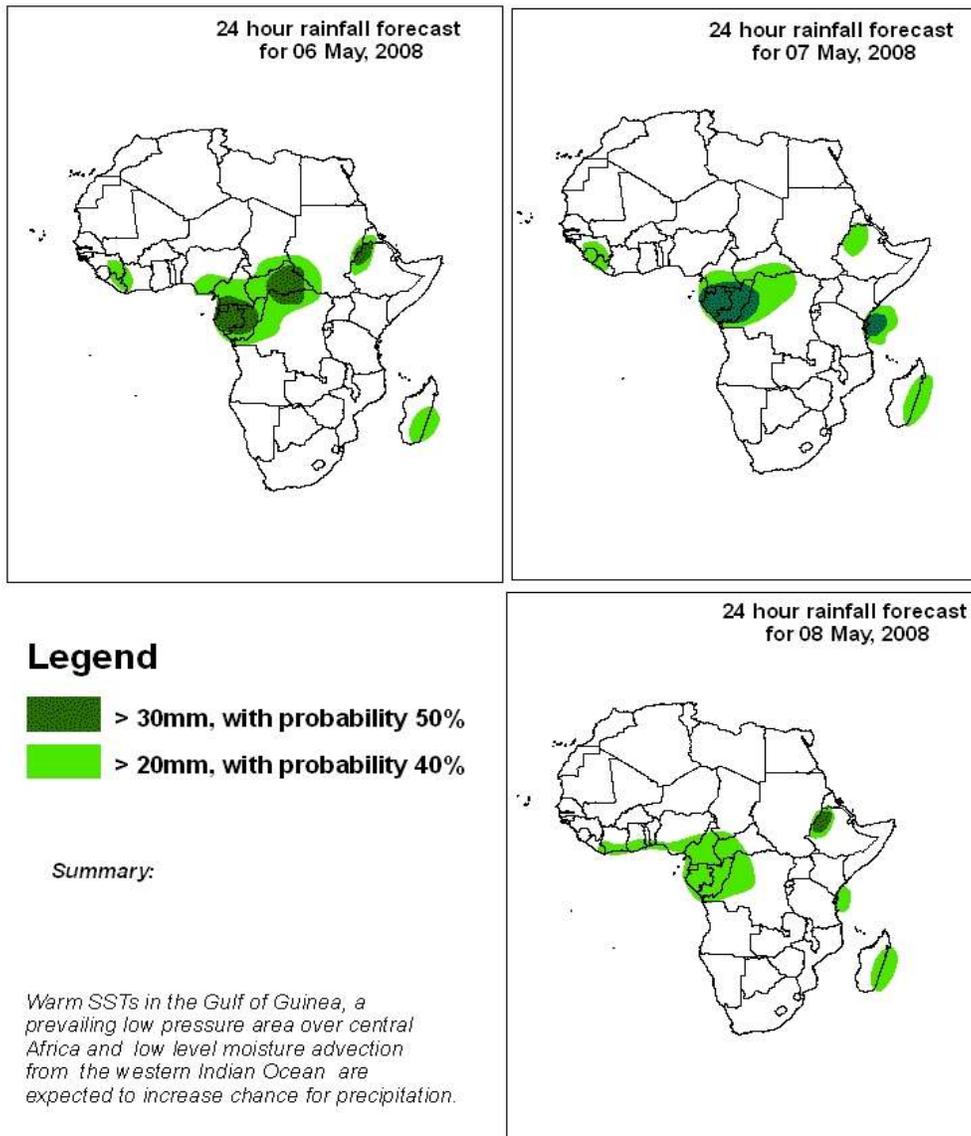
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 05 MAY 2008

Valid: 00Z, 06-08 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; 05 May 2008): all the three models are in agreement especially with respect to the positioning of large scale feature, although UK model gives lower values as always in the Tropical latitudes (10N and 10S).

2.1. Flow at 850hPa

T+24h, an anticyclonic flow pattern is expected to dominate over Western Sahara, western Mali, Tunisia, Libya and western Egypt while a general low pressure area is expected to dominate over the remaining part of North Africa, Sahel, Central and Eastern Africa, causing isolated convergence in the area. A low pressure is expected to dominate over the equatorial Western Indian Ocean causing moisture advection inland along the coast of Somalia, Kenya and Tanzania by a southeasterly flow. An anticyclonic flow pattern is expected to dominate over a large part of southern Africa with an extensive trough lying in the Atlantic Ocean and a low pressure over eastern South Africa and south of the Mozambique Channel.

T+48h, an anticyclonic flow circulation is expected to dominate over northern Algeria, eastern Libya, Egypt and northwestern Sudan. A general low pressure area is expected to prevail over the remaining part of North, Sahel, Central and Eastern Africa. A low pressure is expected to prevail over equatorial western Indian Ocean and contribute to a southeasterly flow over Kenya Tanzania and northern Mozambique. An extensive anticyclonic flow pattern is expected to dominate over southern Africa, from the Atlantic Ocean to western Indian Ocean with a trough over southeast South Africa in the Indian Ocean.

T+72h, an anticyclonic flow pattern is expected to dominate over northeast Algeria, Tunisia and over northwestern Libya with a general low pressure area over the remaining part of North Africa including the Sahel, Central and eastern Africa with localized convergence over there. An equatorial low pressure is expected to continue dominating the coasts of Somalia, Kenya and Tanzania. An extensive anticyclonic flow pattern is expected to prevail over southern Africa, from the Atlantic Ocean to western Indian Ocean with a trough over southern Mozambique in the Indian Ocean and embedded confluence lines over northwestern South Africa.

2.2. Flow at 500hPa

T+24h, an anticyclonic flow pattern is expected to dominate over northern Africa with an embedded trough over Algeria, Cote D'Ivoire, Ghana and northern Libya and Egypt. Southwesterlies from the Gulf of Guinea and easterlies from the Indian Ocean are expected to converge over Nigeria, Cameroon and Equatorial Guinea. An extensive anticyclonic flow pattern is expected to dominate over the remaining part of Africa except over southern Mozambique where is expected to dominate a low pressure and over western Namibia and Southern Africa where is expected to dominate a trough.

T+48h, an extensive anticyclonic flow pattern is expected to dominate almost over all Africa, except over the Gulf of Guinea where a low pressure is expected to dominate and

over southern South Africa and southern Madagascar where a trough is expected to dominate.

T+72h, an extensive anticyclonic flow pattern is expected to dominate almost over all Africa with a trough over western Morocco, western part of the Gulf of Guinea, southern Namibia and western South Africa and a low pressure over Ghana, northern Mozambique and Madagascar.

2.3. Flow at 200hPa

T+24h, an upper level westerly jet stream is expected to dominate over North and West Africa with an embedded deep trough over western Africa extending from Algeria, Mali to Cote D'Ivoire. A general anticyclonic circulation system is expected to dominate over Central and eastern Africa with a divergent flow pattern over southern Sudan. A westerly flow pattern is expected to dominate over a large part of southern Africa with an upper level trough in the Atlantic Ocean to the west and over southern Mozambique to the east.

T+48h, an upper level westerly jet stream is expected to prevail over North and West Africa with an embedded deep trough from Algeria, eastern Mali, Burkina Faso, Cote D'Ivoire and Ghana to the Gulf of Guinea. A general anticyclonic circulation is expected to prevail over Central and eastern Africa. A westerly flow pattern is expected to prevail over a large part of southern Africa with an upper level trough in the Atlantic Ocean to the west and over southern Madagascar to the east.

T+72h, an upper level westerly jet stream is expected to prevail over North and West Africa with an embedded trough over southern Algeria, eastern Mali, Burkina Faso, Cote D'Ivoire and Ghana. A general anticyclonic circulation is expected to prevail over Central and eastern Africa. A westerly flow pattern is expected to prevail over a large part of southern Africa with an upper level trough in the Atlantic Ocean to the west and over Madagascar to the east.

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