



## Forecast Guidance for Africa

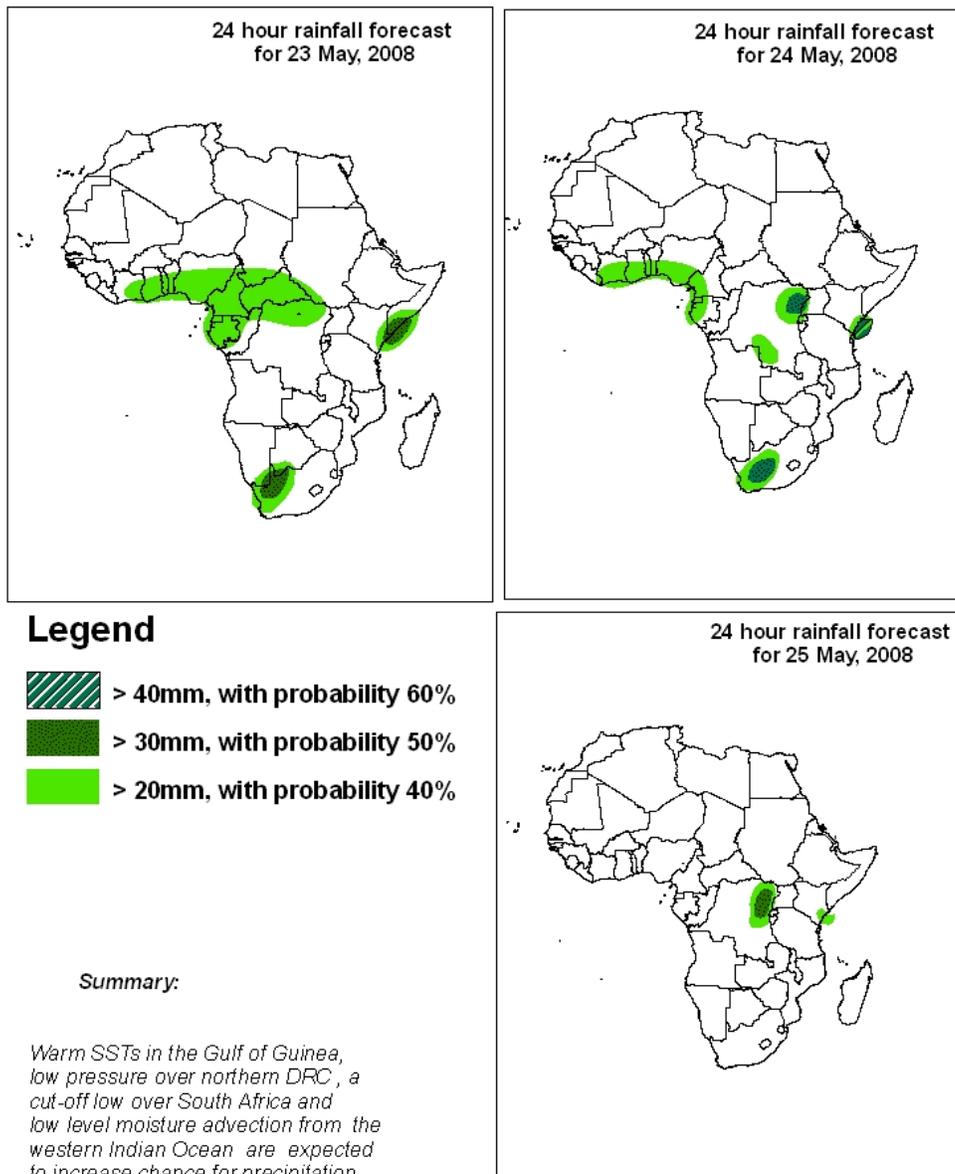
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

**FORECAST DISCUSSION 14H00 EST, 22 MAY 2008**

**Valid: 00Z, 23-25 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; 22 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 Tropical latitudes (10°N and 10° S).*

### **2.1. Flow at 850hPa**

T+24h, an anticyclonic flow pattern is expected to dominate over a large part of North Africa including the western side of the Sahel (Mauritania, Senegal, western Mali and Guinea) with a low pressure area over southeastern Algeria and a general low pressure area in the remaining part of the Sahel and Central Africa. An anticyclonic circulation is expected to dominate over the Equatorial western Indian Ocean providing southeasterlies over the coasts of Kenya and Tanzania. A low pressure area is expected to dominate over southwestern Angola, Namibia and northwestern South Africa while an anticyclonic flow pattern is expected to dominate over the remaining part of southern Africa with a small trough over the Mozambique Channel.

T+48h, an anticyclonic flow pattern is expected to prevail over western Sahara, Mauritania, Senegal, northern Algeria, Tunisia, Libya and Egypt while a low pressure area is expected to dominate over northern Morocco and southern Algeria and a general low pressure area over the remaining parts of the Sahel. An anticyclonic circulation is expected to prevail over the Equatorial western Indian Ocean with associated southeasterlies over the coast of Tanzania and Kenya that are expected to converge over the Tanzanian/Kenyan coastline. A low pressure system is expected to dominate off the coast Angola and over southern Namibia and northwestern South Africa, while an anticyclonic flow pattern is expected to prevail over the remaining part of Southern Africa with a small trough over the Mozambique Channel that can create a southeasterly flow pattern along the coast of Central and Northern Mozambique.

T+72h, an anticyclonic flow pattern is expected to prevail over northern Libya and Egypt while a general low pressure area is expected to dominate over the remaining part of North Africa including the Sahel and Central Africa. An anticyclonic circulation is expected to prevail over the Equatorial western Indian Ocean with southeasterlies along the coasts of Kenya and Tanzania and southwesterlies along the coast of Somalia. An anticyclonic flow pattern is expected to prevail over a large part of Southern Africa with a low pressure over Namibia and a shallow trough over the Mozambique Channel.

### **2.2. Flow at 500hPa**

T+24h, westerlies are expected to dominate over Morocco, through Algeria and Libya to western Egypt with an embedded trough over central Algeria. An extensive anticyclonic flow pattern is expected to dominate over the remaining part of North Africa to latitude 10°S. A westerly flow pattern is expected to dominate over a large part of Southern Africa

with a low pressure area over southern Namibia and western South Africa with another trough over southeastern coast of Madagascar.

T+48h, a trough is expected to dominate over Morocco and another one over Libya while an extensive anticyclonic flow pattern is expected to prevail over the remaining part of Africa to latitude 10°S. A westerly flow pattern is expected to prevail over a large part of southern Africa with a low pressure area over southern Namibia and western South Africa, and another over southeastern Madagascar, with a high pressure center over southeastern coast of South Africa.

T+72h, an extensive anticyclonic flow pattern is expected to prevail over a large part of North Africa with a trough over Morocco. A low pressure area is expected to expand and influence over all of South Africa including southern Namibia and Botswana, while a trough is expected to prevail over southeastern Madagascar with a high pressure center over southeastern coast of South Africa in between.

### **2.3. Flow at 200hPa**

T+24h, westerlies are expected to dominate over a large part of North Africa with an embedded deep trough over eastern Libya, while an anticyclonic flow pattern is expected to dominate from West Africa through Central to Eastern Africa. Westerlies are also expected to dominate over a large part of Southern Africa with an upper level trough over southern Namibia and western South Africa, and an upper level ridge on either side.

T+48h, westerlies are expected to prevail over a large part of North Africa with an embedded deep trough over eastern Libya. An extensive anticyclonic flow pattern is expected to prevail from West Africa through Central to Eastern Africa with associated divergent flow pattern over southern Chad and over the coast of Kenya. Westerlies are expected to prevail over a large part of Southern Africa with an upper level trough over southern Namibia and western of South Africa, and an upper level ridge on either side.

T+72h, westerlies are expected to prevail over a large part of North Africa while an extensive anticyclonic flow pattern is expected to prevail from West Africa through Central to Eastern Africa with an associated divergent flow pattern over the coast of Kenya. A westerly flow pattern is expected to prevail over a large part of Southern Africa with an upper level trough over South Africa

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