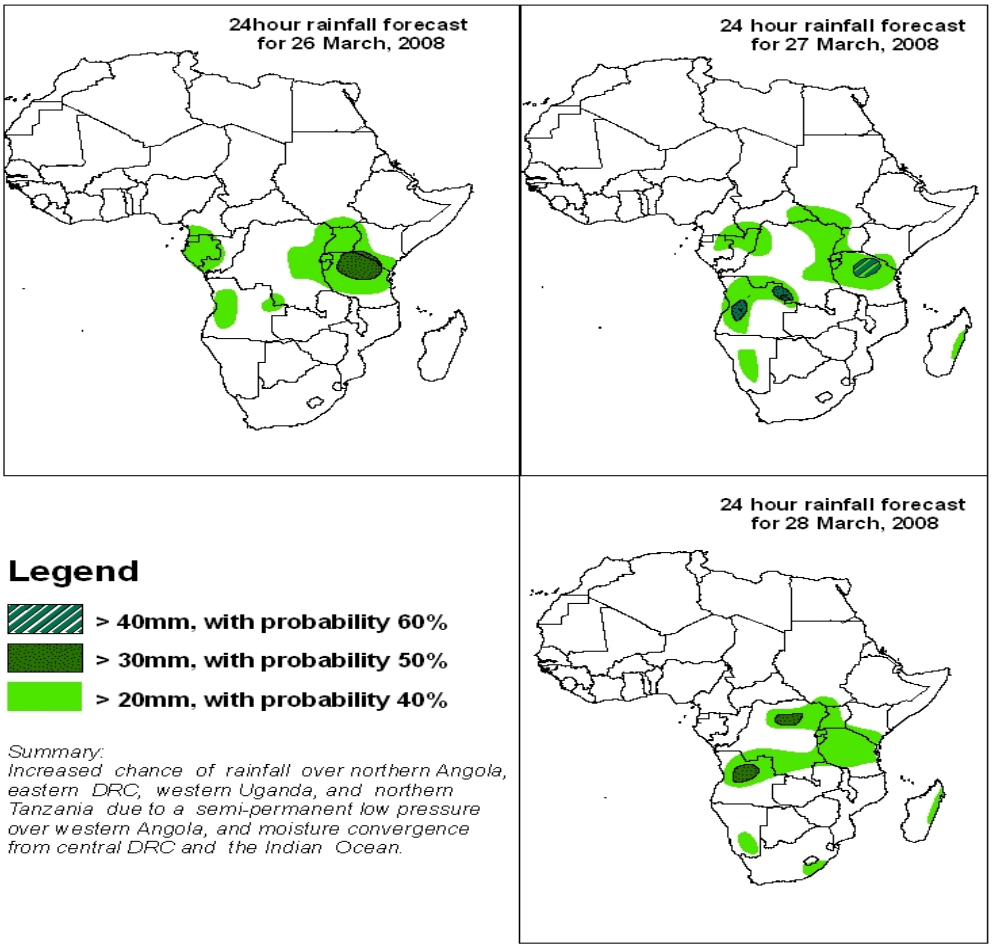
Forecast Guidance for Africa

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

FORECAST DISCUSSION 14H00 EST, 25 MARCH 2008
Valid: 00Z, 26-28 MARCH, 2008

1: Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceedence based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS), and expert assessment. The forecasts are valid for the period 26-28 March, 2008



2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 25th MARCH 2008): There is an agreement of UK MET, ECMWF and GFS models. These 3 models are almost in agreement to predict a southeastward track for the tropical disturbance (ex-Tropical Cyclone LOLA) over the Indian Ocean.

FLOW AT 850MB

T+24hr, a low pressure system associated with the tropical disturbance (ex -Lola) is expected to be centered north of Mascarene Island and dominate over the Indian Ocean to the coast of Tanzania and Mozambique with a trough extending over Madagascar southwards. A high pressure system is expected to prevail over the Indian Ocean off the coast of Somalia and contribute to a diffluent flow pattern over Somalia towards Ethiopia. The St Helena high pressure system is expected to prevail over the eastern side of the subcontinent and result into south southeasterlies through Mozambique Channel, north Mozambique and contribute to convergence in central Tanzania and at the Uganda, Sudan and Kenya boarders while the low pressure areas off the coast of Angola and Namibia are expected to contribute to a confluence over western South Africa.

T+48hr, the high pressure system off the coast of Somalia is expected to move to the east permitting easterlies to its north and convergence over Ethiopia. The St. Helena high pressure system in the Atlantic Ocean as well as over the eastern of the subcontinent is expected to prevail and move eastwards into the Mozambique Channel and southern Madagascar thus weakening the south easterly flow through Tanzania.

T+72hr, the low pressure area associated with the tropical disturbance (ex –Lola) is expected to shift to the southeast of the Mascarene Islands with the trough system to its south. A ridge area associated with the high pressure over the continent is expected to develop further north and join with the prevailing high pressure off the coast of Somalia. This system will cause an anticyclonic flow pattern flow to dominate over a large eastern part of the subcontinent and contribute to a convergence over west part (central no northern DRC, central Angola, northern Namibia).

FLOW AT 500MB

T+24hr, an anticylonic flow pattern is expected to dominate over southern part of the subcontinent (southern Mozambique, Zimbabwe, Zambia, southern Angola, Namibia and eastern South Africa) while low pressure systems are expected to flank it either sides. These systems are expected to create isolated convergence over Tanzania and DRC.

T+48hr, an alternating trough/ridge pattern is expected to dominate the subcontinent form the Atlantic Ocean to Madagascar in the Indian Ocean causing localized convergence over western Botswana, southern Mozambique and northern Zambia.

T+72hr, the alternating trough/ridge pattern is expected to prevail with a slight movement to the east with centers of low pressure west of Namibia and of high pressure over the boarder of Zimbabwe and South Africa.

FLOW AT 200MB

T+24hr, an extensive upper level high pressure system is expected to dominate over the central part of the subcontinent from the Atlantic Ocean to the Indian Ocean with the centers to the west of Angola and eastern Madagascar, this system will cause a strong westerly flow over Namibia, Botswana, Zambia and central Mozambique and a strong upper level divergence over north Tanzania. Two upper level troughs are expected to develop south of the subcontinent, in either sides of the southern Africa.

T+48hr, the extensive upper level high pressure system is expected to prevail over the central part of the subcontinent while the upper level divergence over Tanzania is expected to move westward. An upper level trough is expected to dominate over South Africa, southern Botswana and southern Namibia and cause southeasterly flow to the west of South Africa and northwesterly flow across the central part of the subcontinent.

T+72hr, the upper level trough over South Africa, southern Botswana and southern Namibia is expected to prevail contributing to a northwesterly flow over Angola, Botswana, southern Zambia, Zimbabwe, south and central Mozambique and southern Madagascar. A strong upper level divergence is expected over central DRC and an anticyclonic flow pattern is expected to dominate over northern Madagascar.

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