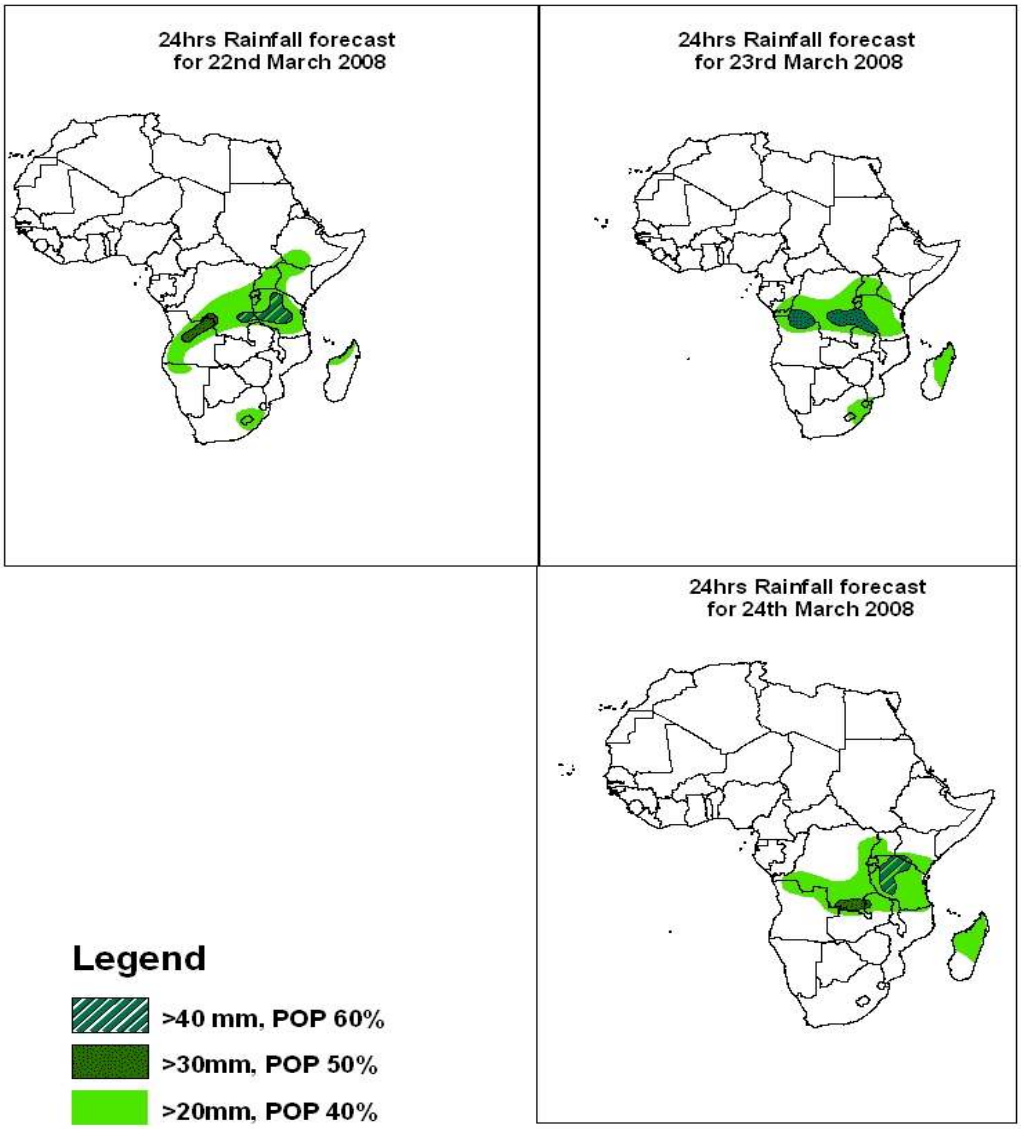
Forecasting guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

AFRICAN DESK
CLIMATE PREDICTION CENTRE
National Centers for Environmental Predictions
National Weather Service
NOAA
Camp Spring MD 20746

FORECAST DISCUSSION 14H00 EST, 21TH MARCH 2008
Valid: 00Z 22ND MARCH 2008-00Z 24TH MARCH 2008

1: 24 HR RAINFALL FORECAST

Areas showing Probability Of Precipitation (POP) exceeding thresholds of 40mm, 30mm and 20mm are shown in the following figure, for the dates of 22 to 24 march 2008.



2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 21st MARCH 2008): There is an agreement of UK MET, ECMWF and GFS models. These 3 models are almost in agreement to predict a westward track for the tropical disturbance over the Indian Ocean to the northeast of Mascarine Islands.

FLOW AT 850MB

T+24, an anticyclonic flow pattern is expected to dominate over southern Mozambique, Zimbabwe, eastern Botswana and eastern South Africa. A low pressure area is expected to prevail over west Angola and a trough over western South Africa and southern Namibia that will cause convergence over there. A southeasterly flow due to a developing tropical disturbance northeast of Madagascar is expected to dominate over Madagascar

and northern Mozambique and cause isolated convergence over central Tanzania and DRC.

T+48, the anticylonic feature over southern Mozambique, Zimbabwe, eastern Botswana and eastern South Africa is expected to prevail. The low pressure area off the coast of Angola and the trough over southern Namibia and western South Africa are expected to prevail while a low pressure area is expected to develop over northern Angola and southern DRC resulting in widespread convergence over there. The tropical disturbance over northeast Madagascar is expected to continue providing onshore flow along the Madagascar coast and northeastern part of Mozambique.

T+72, the anticylonic circulation over southern Mozambique, Zimbabwe, eastern Botswana and eastern South Africa is expected to prevail as well as the tropical disturbance over northeast of Madagascar. The low pressure area over northern Angola and southern DRC is expected to fill up while the low pressure system off the coast of Angola is expected to prevail. A low pressure area is expected to develop over western South Africa and southern Namibia.

FLOW AT 500MB

T+24**,** an anticyclonic flow pattern is expected to dominate over a large part of the subcontinent due to St. Helena rigde. A trough area is expected over southwestern part of the Mozambique Channel while a low pressure area is expected over northeastern Madagascar.

T+48, an anticyclonic flow pattern is expected over Namibia, Angola, Botswana, South Africa and Zimbabwe. A trough area over southwestern part of Mozambique Channel is expected to strengthen and dominate over southern Madagascar and southern Mozambique while the low pressure area over northeastern Madagascar is expected to prevail.

T+72, the anticyclonic flow pattern over Namibia, Angola, Botswana, South Africa and Zimbabwe is expected to prevail as well as the trough in the Mozambique Channel. A trough system is expected to develop southern South Africa and the low pressure area over northeast Madagascar is expected to prevail.

FLOW AT 200MB

T+24h, an extensive upper level high pressure is expected to dominate over the central part of the subcontinent from the Atlantic Ocean to the Indian Ocean with centers to the northwest of Namibia, northern Zimbabwe, with a trough extending from southern Madagascar through the northern Mozambique. This system is expected to cause a strong westerly flow to the south and an easterly flow over DRC and northern Tanzania. An isolated strong upper level divergence is expected to develop over central Tanzania. Flow from this divergent area will feed a confluent flow to the north over Kenya, Uganda and northeastern DRC, to the south over northern Mozambique, northern Malawi and northern Zambia.

T+48h, the trough over the Mozambique Channel is expected to weaken and a belt of upper level high pressure area will dominate all along the 15S-20S latitudes, with a well developed high pressure cell associated with the tropical disturbance over the Indian Ocean. An upper level divergent flow is expected to prevail over central Tanzania and southern DRC as a result of convection over there. A weak upper level trough is expected to dominate over the southeastern South Africa.

T+72h, an upper level trough system is expected to develop and extend through the southeastern South Africa to southern Zambia. It will separate two high pressure areas, one to the northwest of Namibia, the other to the northeast of Madagascar over the Indian Ocean. This trough is expected to push the upper level high area which was over northern Zimbabwe to the north over northern Zambia and causing confluent flow over Uganda, and southwestern Ethiopia.

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