



Forecasting guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 17TH MARCH 2008

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

FORECAST DISCUSSION 14H00 EST, 17TH MARCH 2008
Valid: 00Z 18TH MARCH 2008-00Z 20TH 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 figures 1 – 3 respectively for the dates of 18 to 20 march 2008.

Fig.1: 24 HR RAINFALL FORECAST FOR 18TH MARCH 2008

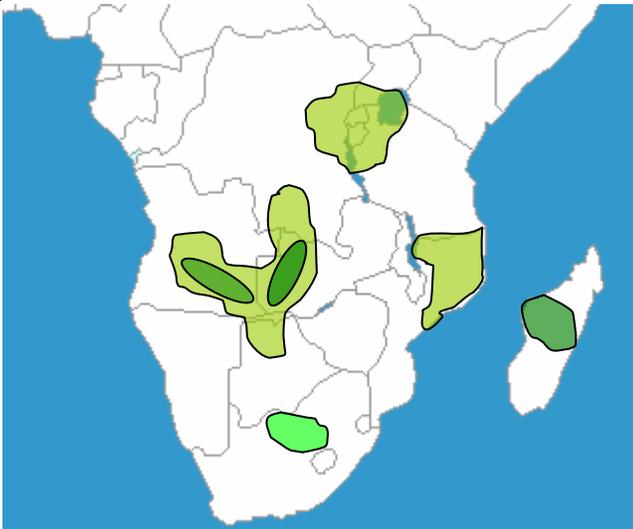


Fig.2: 24 HR RAINFALL FORECAST FOR 19TH MARCH 2008

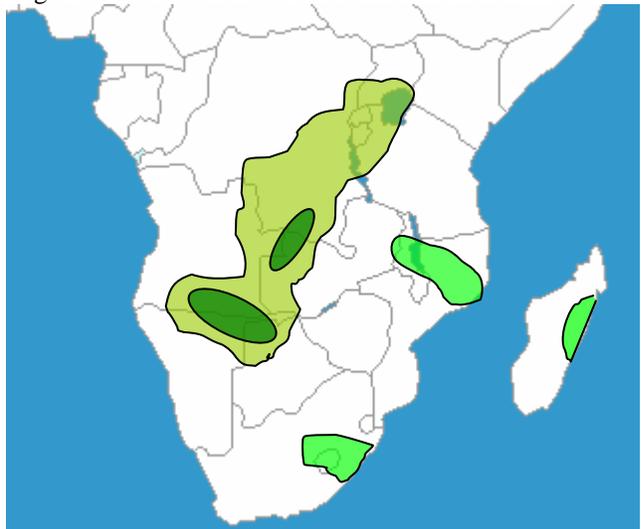
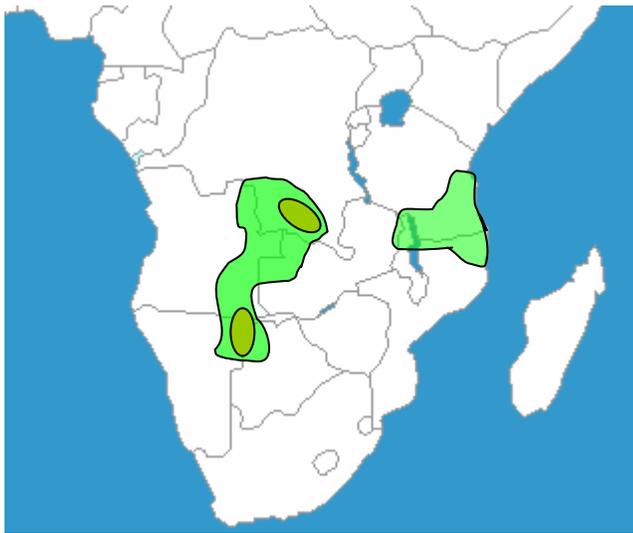


Fig.3: 24 HR RAINFALL FORECAST FOR 20TH MARCH 2008



LEGEND:

- : >40 mm, POP 60%
- : >30 mm, POP 50%
- : >20 mm, POP 40%

POP: Probability Of Precipitation exceeding a threshold

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 18th March 2008): In general, there is a slight difference between UKMET, ECMWF and GFS models to estimate a low pressure area which according to UKMET and ECMWF models, is previewed to deepen and move southwestward over the Indian Ocean to the northeast of Madagascar.

FLOW AT 850MB

T+24, a high pressure system centered at 37E 35S is expected to prevail to the south east of South Africa with a ridge expanding over northeastern part of the country, Botswana, Zimbabwe and southern Mozambique. To the west, a low pressure area will dominate over southern Angola and Namibia. These two systems will contribute to isolated convergences over eastern Angola and western Zambia.

Over Indian Ocean, a frontal system with a southeast/northwest direction is expected to prevail to the southeast Madagascar. A low pressure area centered at 67E 11S with a trough extending over southern coast of Tanzania. These two systems will contribute to a southeasterly flow and will collide with a southwesterly flow from DRC over northwestern Tanzania and Lake Victoria Basin.

T+48, the high pressure system over the eastern part of the subcontinent is expected to intensify, while the low pressure area over the Indian Ocean is expected to deepen and move westward, it will maintain convergence over northwestern Tanzania and Lake Victoria Basin. A low level pressure is expected to be cut-off over the Mozambique Channel and will cause localized convergence over northern Mozambique, Malawi, and northern Zambia. A low level pressure area is expected to prevail over western Angola, and Namibia, it will maintain convective activities over there.

T+72, Mascarine high pressure system is expected to weaken and move southeastward, and attract a frontal system behind it. This frontal system will prevail over southern South Africa. The low pressure area over Indian Ocean is expected to continue moving westward. This system associated with an anticyclonic flow over Botswana, Zimbabwe and Mozambique will cause convergent southeasterly flow over western Tanzania. A low pressure area is expected to prevail over southwest Angola, this system associated with

an anticyclonic flow over Botswana and western Zambia will cause convergence over northern Namibia and southern Angola.

FLOW AT 500MB

At T+24, an anticyclonic circulation system is expected to dominate over most of the eastern part of the subcontinent. A small low pressure area is expected over southeastern Angola. A trough area is expected over southern South Africa and northern Namibia.

At T+48, an anticyclonic flow pattern is expected to dominate over a large area of the subcontinent, including Namibia, while the trough system over southern South Africa is expected to move further to the west. A small low pressure area over southeast Angola is expected to expand westward and cause localized convergence over there.

At T+72, the anticyclonic flow pattern over the most area of the subcontinent is expected to prevail. The low pressure area over southeast Angola is expected to prevail and another one is expected to dominate northern Madagascar.

FLOW AT 200MB

T+24h, an upper level high pressure area is expected to dominate over the large part of the subcontinent with divergent flow over southern Angola and northeastern Namibia. Another upper level high pressure area is expected to ridge over northern Madagascar. These two systems will contribute to an easterly divergent flow over western Tanzania and DRC. Southern South Africa is expected to be dominated by an upper level trough.

T+48h, the upper level high pressure area is expected to continue prevailing over a large part of the subcontinent, with a divergent flow over northern Botswana. An upper level high pressure area is expected to move toward northern Madagascar. These systems will contribute to a southeasterly divergent flow over DRC. The trough system which was over southern South Africa will move further east over the Indian Ocean to the east of the country.

T+72, the upper level high pressure area is expected to dominate the subcontinent with a divergent flow pattern over northern Namibia. This system will cause a confluent southeasterly pattern over DRC. A trough system is expected to prevail over central to southern Madagascar. An upper level trough system is expected to prevail to the south of South Africa.

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