Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 27TH FEBRUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 27TH FEBRUARY 2008
Valid: 00Z 28TH FEBRUARY 2008-OOZ 01ST MARCH 2008

1: 24HR RAINFALL FORECAST

DAY 1: 28th FEB 2008

During this period, more than 30mm with a Probability Of Precipitation (POP) 60% is expected over western DRC: More than 20mm with POP 80% over western Angola, 70% over northeastern South Africa, 60% over northern to western Madagascar, 40% over northern Mozambique and Lake Victoria Basin.

DAY 2: 29th FEB 2008

During this period, more than 30mm with POP 40% is expected over western to southern Angola: More than 20mm with POP 40% over northern Mozambique and northern Malawi and 30% over Lake Victoria Basin.

DAY 3: 01st MARCH FEB 2008
More than 30mm with POP 40% is expected over southwestern Angola: More than 20mm with POP 30% over western Zambia, eastern Angola, northern Mozambique and northern Madagascar.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 27th FEBRUARY 2008): There is an agreement of UK MET, ECMWF and GFS models. There are no major discrepancies between them

FLOW AT 850MB

At T+24, a Mascarine high pressure system is expected to be centered around 37S 52E ridging towards southern Madagascar. A Low pressure system is expected to be situated over the Indian Ocean, northeast of Madagascar and contributing to diffluent over northern part of the country and eastern Tanzania. A frontal system is expected to be southwest of South Africa ridging behind by a St Helena high pressure system centered at 27S 12W. Convergence prevails over eastern Angola, western Zambia, central DRC and Lake Victoria Basin.
At T+48, a Mascarine high pressure system is expected to shift further to the east and ridging towards southern Madagascar while causing onshore flow over eastern part. A frontal system is expected to be touching the tip of South Africa with St Helena high pressure system behind it. Convergence continues to prevail over southern Angola, northern Namibia, Lake Victoria Basin and western Zambia while a diffluent pattern over southern DRC and western Tanzania.

T+72hr, a new Mascarine high pressure system is expected to be centered around 30S 40E ridging towards northern South Africa. A new frontal system is expected to be situated southwest of South Africa with St Helena high pressure system maintaining its position far to the west. A weak confluence continues to prevail over southern Angola, northern Namibia and Lake Victoria Basin while a diffluent pattern over western Tanzania, northern Angola and southern DRC.

FLOW AT 500MB

At T+24, a weak sub tropical high pressure system is expected to be situated west of Namibia causing divergence over there. A trough system will be situated southeast of South Africa, expecting to contribute to strong westerlies over southern part of the country. Another high pressure system is expected to sit south of Madagascar and ridging towards northern Zambia otherwise easterlies to southeasterlies prevail over northern part of the sub continent.

At T+48, a weak sub tropical high pressure system is expected to maintain its position over western Namibia and contributes to strong zonal westerlies over southern South Africa. A trough system which was situated east of South Africa is expected to fill up while a high pressure south of Madagascar will be ridging slightly towards northern Zimbabwe.

At T+72, a weak sub tropical high pressure system is expected to shift towards northern South Africa, continues to contribute to strong zonal westerlies over southern part of the country. A high pressure system is expected to maintain its position south of Madagascar and ridging towards northern part of South Africa. Easterlies to southeasterlies continue to prevail over the northern part of the sub continent.

FLOW AT 200MB

At T+24, an upper level high pressure system is expected to be situated south of Madagascar ridging towards southern Mozambique. An upper level trough system will be situated southeast of South Africa, together with a high pressure system south of Madagascar, are expecting to contribute to very strong northwesterlies over the northern

part of South Africa. Strong divergence dominate central DRC and over the Indian Ocean, east of Tanzania.

At T+48, an upper level high pressure system which was situated south of Madagascar is expected to shift to the east and ridge towards southern part of the country. A new trough system is expected to be situated west of Namibia and contributes to very strong northwesterlies over South Africa. Strong divergence dominate central to northern Angola, eastern Tanzania and over the Indian Ocean.

At T+72, an upper level high pressure system is expected to maintain its position southeast of Madagascar while ridging towards southern parts. An upper level trough which was situated west of Namibia is also expected to maintain its position and continue to contribute towards very strong northwesterlies over northern Namibia and South Africa. Divergence prevails over southern Angola, northern Botswana Zambia and over the Indian Ocean.

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