Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 25TH FEBRUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 25TH FEBRUARY 2008
Valid: 00Z 26TH FEBRUARY 2008-OOZ 28TH FEBRUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 26th FEB 2008

During this period, more than 40mm with a Probability Of Precipitation (POP) 70% is expected over western DRC; More than 20mm with POP 60% over southwestern Angola and northern Namibia, central to eastern DRC, 50% over northern Mozambique and 40% over central Madagascar.

DAY 2: 27th FEB 2008

During this period, more than 20mm with POP 60% is expected over southwestern Angola and central Madagascar and 40% over central to eastern DRC, northern Namibia, southern South Africa and southern Mozambique.

DAY 3: 28th FEB 2008
More than 20mm with POP 50% is expected over western Angola, extreme western DRC and southern Congo Republican and 40% over southeastern Madagascar.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 25th 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 at 42S 38E ridging towards northern South Africa. Convergence is expected to dominate Mozambique Channel, southwest of Madagascar. A frontal system is expected to be touching the tip of

South Africa ridging behind by a Mascarine high pressure system. A weak high pressure system sits southeast of Tanzania contributing to a diffluent pattern over eastern part f the country. Convergence dominates Zambia, western Botswana, Namibia and southern Angola.

At T+48, a Mascarine high pressure system is expected to shift eastwards and centered at 40S 48E while ridging towards southern Madagascar. Convergence which was over the Mozambique Channel is expected to fill up. A frontal system is expected to be shifted slightly to the east ridging behind by a Mascarine high pressure system, centered at 27S 10W. A weak high pressure system continues to dominate southeast of Tanzania and expecting to continue causing diffluent pattern over eastern to central parts of the country. Convergence prevails over Zambia, western Botswana, Namibia and southern Angola otherwise a diffluent pattern over northern Angola and southern DRC.

T+72hr, a Mascarine high pressure system is expected to shift further to the east ridging towards southern Madagascar. A frontal system has also shifted further to the east while a St Helena high pressure system is expected to maintain its position to the west. A high pressure system which was situated southeast of Tanzania has weakened but a Low pressure system is expected to be situated over the Indian Ocean, far to the east contributing to diffluent pattern over Tanzania. Convergence continues to persist over Botswana, eastern Namibia, southern Angola and central Tanzania otherwise a diffluent over northern Angola and southern DRC.

FLOW AT 500MB

At T+24, a sub tropical high pressure system is expected to be centered over southern Botswana causing divergence over there. An upper level trough is expected to be situated south of South Africa, together with a high pressure system over Botswana, they both expect to contribute to very strong northwesterlies over western South Africa. A high pressure system is expected to be situated southeast of Madagascar ridging towards central parts and pumping southeasterlies over Tanzania, together with northeasterlies over there, they expected to contribute to convergence over eastern part of the Tanzania.

At T+48, a sub tropical high pressure system which was over Botswana is expected to maintain its position and continues to cause divergence over the area. A trough system which was south of South Africa is expected to shift towards eastern part. These two systems are expected to contribute towards very strong southwesterlies over southern part of South Africa. A weak confluent continues to prevail over eastern Tanzania while a high pressure system dominates southern Madagascar.

At T+72, a sub tropical high pressure system is expected continues dominating Botswana associated with divergence over there. A trough system which was over eastern South Africa has shifted further to the east. A high pressure system is expected to continue dominating southern Madagascar while convergence over eastern Tanzania.

FLOW AT 200MB

At T+24, an upper level high pressure system is expected to sit over northwestern Namibia and causing divergence over there. A trough system is expected to be situated southwest of South Africa, together with a high pressure system over Namibia, they both expect to contribute to a northwesterly Jet Stream with a maximum speed of 90Kts over western South Africa. A high pressure system is expected to sit southeast of Madagascar, together with a Low pressure over northeastern part, they both contribute to convergence over eastern part of the country. Convergence is expected to dominate eastern to northeastern parts of Tanzania otherwise a weak divergence over southern DRC, eastern Angola and Zambia.

At T+48, an upper level high pressure system is expected shift to the west and ridging towards northern Namibia. A trough system is expected to shift eastwards and extends towards central part of South Africa. These two systems will contribute to very strong southwesterlies over southern South Africa. A high pressure system is expected to continue dominating south of Madagascar with a Low pressure system over northern Madagascar. These two systems are expecting to continue contributing to convergence over eastern Madagascar. Convergence is expected to continue dominating over southern Tanzania while a diffluent pattern over southern DRC, eastern Angola and Zambia.

At T+72, a sub tropical high pressure system is expected to continues maintaining its position over the area contributing to very strong westerlies over southern South Africa. A high pressure system is expected to sit southeast of Madagascar contributing to divergence over southern parts. Divergence dominates Tanzania, southern DRC and northern Angola.

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