Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 28TH 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 29TH FEBRUARY 2008-OOZ 02ND MARCH 2008

1: 24HR RAINFALL FORECAST

DAY 1: 29TH FEB 2008

During this period, more than 30mm with a Probability Of Precipitation (POP) 70% is expected over southwestern Angola: More than 20mm with POP 60% over central to northeastern Angola, 50% over southwestern Madagascar and northern Mozambique, 40% over southern Zambia, northern Zimbabwe, northern Botswana, northern Namibia and eastern DRC.

DAY 2: 01ST MARCH 2008

During this period, more than 30mm with POP 40% is expected over southwestern Angola: More than 20mm with POP 50% over southwestern Madagascar, southern Zambia, northern Mozambique and southern Malawi, 40% over southern Angola, central to northern Namibia, northern Botswana and northern Zimbabwe.

DAY 3: 02ND MARCH FEB 2008

More than 30mm with POP 50% is expected over southwestern Angola and northwestern Namibia: More than 20mm with POP 60% over central to northwestern Angola, southern DRC, 50% over northern Zambia and northern Malawi, 40% over northern Mozambique, central to eastern South Africa, southwestern Madagascar and central Namibia.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 28th 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 30S 64E ridging westwards, causing onshore flow on the eastern Madagascar and forming a high pressure cell, east of South Africa centered at 28S 42E. A frontal system is expected to be situated southwest of South Africa ridging behind by a St Helena high pressure system centered at 30S 12E. Diffluence pattern prevail over Tanzania, northern Angola, southern DRC while a weak convergence over southern Zambia, southern Angola and western Namibia.

At T+48, a Mascarine high pressure system east of South Africa is expected to maintain its position and intensify, hence causing a frontal system to slide southwestwards. A St Helena high pressure system continues to maintain its position far to the west. Convergence prevails over southern Angola, eastern Namibia, northern Malawi and Lake Victoria Basin while a diffluent pattern over eastern Tanzania, northern Angola and Botswana.

T+72hr, a Mascarine high pressure system is expected to slide southeastwards and centered at 37S 52E while ridging towards northern South Africa. A new frontal system is expected to be southwest of South Africa with a St Helena high pressure system ridging behind it. Convergence prevails over southern DRC, northern Zambia, central South Africa and northwest Angola while diffluent pattern continues to prevail over eastern Tanzania, Botswana and Zimbabwe.

FLOW AT 500MB

At T+24, a weak high pressure system is expected to be situated over the Indian Ocean, south of Madagascar and contribute to easterlies over eastern part of the country. A weak sub tropical high pressure is expected to be situated over southern Namibia and contribute to divergence over the area. Southeasterlies to easterlies dominates northern part of the sub continent.

At T+48, a weak sub high pressure system is expected to maintain its position south of Madagascar and ridging towards northern South Africa otherwise southeasterlies continues to dominate northern part of the sub continent with a weak convergence over eastern Angola.

At T+72, a weak sub tropical high pressure system is expected to shift towards eastern South Africa and ridging towards Botswana. There is a convergence over central South Africa, northern Mozambique and eastern Tanzania otherwise a diffluent pattern continues to prevail over central to western Tanzania, Botswana and northern Angola.

FLOW AT 200MB

At T+24, an upper level trough is expected to be situated west of Namibia contributing to very strong northwesterlies over northern South Africa and southern Botswana. Divergence dominates eastern Angola and Zambia but convergence over southern DRC. Very strong divergence dominates over the Indian Ocean, east of Tanzania.

At T+48, an upper level trough continues to maintain its position west of Namibia and continues to contribute towards very strong northwesterlies over South Africa. Confluence dominates northern Madagascar and northern Tanzania while divergence over central DRC, northern Botswana, eastern Angola and northern Mozambique. Very strong divergence continues to dominate over the Indian Ocean, east of Tanzania.

At T+72, an upper level high pressure system is expected to shift slightly to the west. A high pressure system associated with divergence is expected to be over northeast of Namibia, together with a trough system, they both expected to contribute to very strong northwesterlies over Namibia and South Africa. Divergence dominate northern part of Zambia, central Angola and over the Indian Ocean otherwise a convergence over eastern Angola and central Mozambique.

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