Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 23RD JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 23RD JANUARY 2008
Valid: 00Z 24TH JANUARY 2008-OOZ 26TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 24TH JAN 2008

During this period, 20-40mm is expected over eastern to southern Angola; 10-30mm over northern Zambia, central, southwestern, western to southern Tanzania, central to eastern Botswana, Zimbabwe and Malawi; 5-30mm over eastern to northern South Africa, northern Mozambique, Madagascar, Lake Victoria Basin, eastern Tanzania, southern to southwestern DRC and central to western Zambia.

DAY 2: 25TH JAN 2008

During this period, 30-70mm is expected over central to eastern Angola; 20-40mm over central to northern Botswana, Zimbabwe, northern Mozambique and southern Malawi; 10-30mm over central to southern Tanzania, northern Malawi and southern Madagascar; 5-30mm over southwestern to western Tanzania, Zambia and southern to southwestern DRC.

DAY 3: 26TH JAN 2008

During this period, 20-60mm is expected over central to northern Botswana, Zimbabwe, northern Malawi, southwestern to southern Tanzania; 20-40mm over central to northern Zambia and southern Malawi; 10-30mm over northern Mozambique and central Tanzania; 5-30mm over southern to central Mozambique, southern to southwestern DRC, Madagascar, western Tanzania and central Angola.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 24TH JANUARY 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 has situated far to the east causing a weak onshore flow on the eastern Madagascar. A frontal system is touching eastern South Africa with a St Helena High pressure ridging behind it. There is onshore flow on Angolan coast caused by St Helena high pressure system. Low pressure systems causing convergence dominates central to northern South Africa, Botswana, eastern Namibia, Zimbabwe, central to northern Mozambique, Malawi, Zambia, northern Botswana and eastern Angola. There is a long track of northwesterlies towards Lake Victoria Basin, western, central to southwestern Tanzania.

At T+48, a high pressure system formed southeast of South Africa ridging towards northern South Africa. A frontal system has shifted to the east, now situated south of Madagascar. A St Helena high pressure system has centered at 30S 15W ridging slightly on southern South Africa while causing a weak onshore flow on Angolan coast. Convergence dominates northern Madagascar, western South Africa, Namibia, northern Botswana, Zimbabwe, central to northern Madagascar, Malawi, eastern to southern Angola. A long track of northwesterlies towards Lake Victoria basin, western, central to southwestern Tanzania continues to prevail.

At T+72, a new Mascarine high pressure system has centered at 37S 37E ridging towards northern South Africa while causing onshore flow on southern Mozambique and pushing a frontal system further to the east. A St Helena high pressure system has shifted to the east, centered at 33S 3W associated with a weak convergence on the eastern Angolan coast. Convergence dominates central to northern Mozambique, Malawi, Zimbabwe, northern Botswana, northern Namibia, Zambia and northern Madagascar. A long track of northwesterlies towards Lake Victoria Basin, western, central to southwestern Tanzania prevails.

FLOW AT 500MB

At T+24, there is a weak trough system over southern South Africa with a high pressure cell ridging behind it. Convergence dominates Malawi, Zambia, southern DRC, Zimbabwe, eastern Botswana, northern Madagascar, northern South Africa, northern Botswana and central to northern Mozambique.

At T+48, a trough system has been pushed further to the east with a high pressure cell behind it, ridging towards southern South Africa. Convergence continues to dominates northern to eastern Madagascar, Mozambique, Malawi, Zambia, Zimbabwe, Botswana,, eastern Angola, and southern to western DRC.

At T+72, a high pressure system has now sits over southern South Africa while continues to push a trough system further to the east. Convergence dominates central to northern Madagascar, Mozambique, Malawi, Zimbabwe, Namibia, northern Angola and western to southwestern Tanzania.

FLOW AT 200MB

At T+24, a high pressure system sits over eastern Namibia ridging towards Zimbabwe. A westerly Jet Stream with a maximum speed of 100Kts dominates south of South Africa. There is divergence over the Indian Ocean, east of Tanzania otherwise strong southeasterlies dominates northern part of the sub continent.

At T+48, a high pressure system has almost maintained the position east of Namibia. Another high pressure cell causing divergence has formed over Zimbabwe. A southwesterly Jet Stream with a maximum speed of 105Kts has situated south of South Africa. Divergence over the Indian Ocean and strong southeasterlies over the northern part of the sub continent continues to dominate.

At T+72, a high pressure system has retrograted to the west towards 22S 2E. A high pressure associated with divergence continues to maintain the position over Zimbabwe. Strong southeasterlies over the northern part of the sub continent together with divergence over the Indian Ocean continues to prevail.

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