Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 24TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 24TH JANUARY 2008
Valid: 00Z 25TH JANUARY 2008-OOZ 27TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 25TH JAN 2008

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

DAY 2: 26TH JAN 2008

During this period, 20-50mm over northern Mozambique; 20-40mm over southern Malawi, northern to central Zambia, northern Zimbabwe and northern Botswana; 10-30mm over southern Tanzania, eastern Angola and northern Madagascar; 5-30mm over northern Namibia, central Botswana, southwestern Tanzania, southern DRC, central Zimbabwe and southern Mozambique.

DAY 3: 27TH JAN 2008

During this period, 20-50mm is expected over northern Zimbabwe, northern Botswana and northern Zambia; 20-40mm over northern Mozambique and southern Angola; 10-30mm over southern Tanzania, central to northern Zambia; 5-30mm over western to southwestern Tanzania, northern and southern Madagascar, central Botswana, central Zimbabwe and eastern DRC.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 24TH JANUARY 2008): On 26-27th Jan 2008, UK MET and ECMWF models suggest 850hPa level Low pressure system associated with strong convergence over northern Mozambique while GFS models suggest a southeasterly wind flow over there, otherwise no major discrepancies between them.

FLOW AT 850MB

At T+24, a Mascarine high pressure system has situated far to the east followed by a frontal system behind it. A high pressure cell sits southeast of South Africa at 37S 32E extending a ridge towards northern South Africa associated with onshore flow on southern Mozambique. A St Helena high pressure has centered at 32S 10W ridging slightly on southern South Africa. Convergence associated with Low pressure systems dominate southern Angola, Namibia, northern Botswana, Zimbabwe, Mozambique, Malawi, Zambia, western to southern Tanzania, eastern, southern to western DRC, northern Madagascar, Lake Victoria Basin but a slight divergence over northeastern Tanzania. Low pressure system associated with convergence dominates over the Indian Ocean, east of Tanzania.

At T+48, a new Mascarine high pressure system has centered at 37S 37E extending a ridge towards northern South Africa, causing onshore flow on southern Mozambique while pushing a frontal system to the east. A St Helena high pressure system has continue to ridge over southern South Africa and centered at 34S 0. Convergence continues to dominate Mozambique, Zimbabwe, northern Botswana, Namibia, southern Angola, Zambia, Malawi, western to southern Tanzania and eastern DRC. A weak divergence prevails over central to northeastern Tanzania. Area of convergence continues to prevail over the Indian Ocean, east of Tanzania.

At T+72, a Mascarine high pressure system has further shifted to the east, centered at 38S 41E and causing onshore flow on the southern Mozambique. A St Helena high pressure system has also shifted further to the east, now centered at 35S 4E. Low pressure systems associated with convergence continues to prevail over western to northern Madagascar, Mozambique, Zimbabwe, western South Africa, southern Angola, Zambia, Malawi, central to western DRC, Lake Victoria Basin, western to southern Tanzania. Convergence continues to dominate over the Indian Ocean.

FLOW AT 500MB

At T+24, a high pressure cell sits over southern South Africa and pushing a trough system to the east. Convergence dominates Mozambique, Zimbabwe, southern Angola, Malawi, central to southern DRC and central to southern Tanzania.

At T+48, a high pressure system continues to dominate southern South Africa while a trough system has slightly shifted to the east. Convergence continues to prevail over northern Madagascar, Mozambique, Zimbabwe, southern Zambia, Tanzania, eastern Angola and central to southern DRC.
At T+72, a high pressure system continues to dominate southern South Africa while a trough system ha shifted further to the east. Convergence continues to prevail over Mozambique, Zimbabwe, northern Botswana, northern, eastern to southern Angola, Malawi, western to central Tanzania and southern DRC.

FLOW AT 200MB

At T+24, a high pressure system associated with divergence sits over eastern Namibia and ridging towards Zimbabwe, contributing to strong westerlies over southern South Africa and easterlies over Zambia and Angola. Also, strong southeasterlies dominates northern part of the sub continent. Divergence dominates the Indian Ocean, east of Tanzania.

At T+48, a high pressure system has retrograted to the east, centered at 20S 6E and associate with southwesterlies over southern South Africa but strong southeasterlies over the northern part of the sub continent. Divergence continues to dominate over the Indian Ocean.

At T+72, a high pressure system has continues retrograte towards 22S 1W contributing towards southwesterlies over the Indian Ocean and southerlies to southeasterlies over the northern part of the sub continent. Divergence continues to dominate over the Indian Ocean, east of Tanzania.

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