Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 25TH JANUARY 2008

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

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

1: 24HR RAINFALL FORECAST

DAY 1: 26TH JAN 2008

During this period, 20-60mm is expected over northern Madagascar; 20-50mm over northern Mozambique, Malawi, northern Zimbabwe, central to southern Zambia, southern to southwestern Tanzania; 10-30mm over northern Zambia and southern Angola; 5-30mm over northern Namibia, central to southern Mozambique, central Zimbabwe, northern Botswana, western Tanzania, central to eastern DRC and eastern Angola.

DAY 2: 27TH JAN 2008

During this period, 20-60mm is expected over central to southern Zambia; 20-50mm over northern Mozambique, Malawi, northern Madagascar, southern to southwestern Tanzania and northern Zimbabwe; 10-30mm over northern Namibia, central Tanzania, southern Mozambique, central Zimbabwe and northern Botswana; 5-30mm over central Mozambique, eastern DRC and western and eastern Tanzania.

DAY 3: 28TH JAN 2008

During this period, 20-70mm is expected over northern Mozambique; 20-60mm over central to southern Zambia; 20-40mm over northern Madagascar; 10-30mm over southern Tanzania and southern Angola; 5-30mm over western to southwestern Tanzania, southern to eastern DRC, central Mozambique, central to southern Madagascar, northern Botswana and northern Zambia.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 25TH JANUARY 2008): On 26-28th Jan 2008, UK MET and ECMWF models suggest 850hPa level Low pressure system associated with strong convergence over northern Mozambique Channel while GFS model suggest a weak convergence over there, otherwise no major discrepancies between them.

FLOW AT 850MB

At T+24, a Mascarine high pressure system has centered at 37S 37E ridging over northern South Africa while causing onshore flow associated with convergence over southern Mozambique. A St Helena high pressure system has centered at 35S 0 ridging slightly on southern South Africa headed by a frontal system touching the tip of the country. Convergence associated with Low pressure systems dominates western to northern Madagascar, northern Mozambique, Malawi, southern Tanzania, Zambia, northern parts of Zimbabwe and Botswana, western, central to eastern DRC, southern Angola, western South Africa and Namibia, weak convergence over western Tanzania otherwise slight divergence over central to northeastern Tanzania. An area of Low pressure systems associated with strong convergence is located over the Indian Ocean, north of Madagascar along 10 S Latitude.

At T+48, a Mascarine high pressure system has slightly shifted to the east, centered at 39S 40E and continues to ridge towards northern South Africa. A frontal system has almost maintained the position over the southern tip of South Africa with St Helena high pressure system ridging behind it. Convergence continues to prevail over western, central, southern to eastern Tanzania, northern and southern Mozambique, northern Madagascar, Zimbabwe, Malawi, Zambia, Angola, western South Africa and DRC otherwise a slight divergence over Namibia. The area of Low pressure system associated with convergence continues to prevail over the Indian Ocean.

At T+72, a Mascarine high pressure system has further shifted to the east, centered at 38S 53E. A frontal system has also shifted to the east, now touching eastern side of South Africa with a St Helena high pressure system continuing ridging behind it. There is a very significant convergence over northern Mozambique and Madagascar associated with a deep Low pressure system. Also, convergence associated with Low pressure systems continues to prevail over Malawi, western, southwestern to southern Tanzania, Zambia, Zimbabwe, central South Africa, eastern Angola and DRC otherwise a weak divergence over Botswana, Namibia and central Tanzania..

FLOW AT 500MB

At T+24, a high pressure cell sits over western South Africa extending a ridge towards central part of the country. An area of Low pressure system associated with convergence

dominates the Indian Ocean, north of Madagascar and extends towards northern Mozambique and southern Tanzania.

At T+48, a high pressure system has retrograted to the west but extends a ridge towards southern South Africa. Area of convergence continues to dominate Malawi, central to northern part of Mozambique, northern part of Madagascar and Zimbabwe. There is a long track of westerly flow through DRC to Tanzania.

At T+72, a high pressure system ha slightly shifted to the east, centered at 33S 0 and continues to ridge towards southern South Africa. A long track of westerlies through DRC to Tanzania continues to prevail. Convergence dominates southern part of Madagascar and Zimbabwe.

FLOW AT 200MB

At T+24, a high pressure system associated with divergence sits to the west of Namibia and ridging towards Zambia, contributing to strong westerlies over southern South Africa and easterlies to southeasterlies over the northern part of the sub continent. Divergence dominates northern part of Madagascar.

At T+48, a high pressure system has retrograted to the west, centered at 22S 5W. A new high pressure cell associated with divergence sits over Zambia. Southwesterlies dominates South Africa but very strong southeasterlies over the northern part of the sub continent. Divergence is also evident over northern Madagascar.

At T+72, divergence continues to dominate southern Zambia and northern Mozambique. Strong westerlies dominate South Africa but southeasterlies to easterlies over the northern part of the sub continent.

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