Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 22ND JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 22ND JANUARY 2008
Valid: 00Z 23RD JANUARY 2008-OOZ 25TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 23RD JAN 2008

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

DAY 2: 24TH JAN 2008

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

DAY 3: 25TH JAN 2008

During this period, 30-60mm is expected over central to southern Angola; 20-40mm over central to southwestern Tanzania, northern Zambia and northern Botswana; 5-30mm over northern Zambia, central to southern Madagascar, eastern to northern South Africa, central to southern Botswana, southern and western Tanzania and Lake Victoria Basin.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 22ND 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 ridging slightly on southern Mozambique. A St Helena high pressure system has centered at 30S 6W ridging over the western South Africa and causing a significant onshore flow on Angolan coast. A frontal system is moving over eastern South Africa associated with a Low pressure system over there. The area of Low pressure systems associated with strong convergence is over the Indian Ocean, east of Tanzania. Low pressure system causing convergence dominates western Madagascar, central to northern Mozambique, Malawi, Zambia, western Botswana, Namibia, southern DRC, western South Africa and northern Zimbabwe. There is a long track of westerlies converging with northeasterlies over Lake Victoria Basin, southwestern, central to western Tanzania.

At T+48, a frontal system has slightly moved to the east of South Africa with a St Helena high pressure system ridging behind it. A Mascarine high pressure system has still situated far to the east having little influence on the sub continent. A St Helena high pressure system has almost maintained the position and continues to cause onshore flow on Angolan coast. Convergence associated with Low pressure systems continues to dominate central South Africa, Namibia, northern Botswana, northern Zimbabwe, Zambia, eastern Angola, Malawi, Lake Victoria Basin, central, southern, western to southwestern Tanzania.

At T+72, a frontal and Mascarine high pressure systems have shifted further to the east. There is a new high pressure cell formed south of South Africa ridging towards northern South Africa. A St Helena high pressure system has retrograted to the west, centered at 30S 11W. Convergence dominates eastern Madagascar, central South Africa, Zimbabwe, Botswana, central to southern Madagascar, Malawi eastern to southern Angola, northern Namibia and western DRC. Convergence over central, western and southwestern Tanzania has slightly relaxed.

FLOW AT 500MB

At T+24, convergence dominates central to northern Mozambique, Malawi, Zimbabwe, northern Madagascar, Zambia, southern Angola and southern DRC. There is also a convergence over the Indian Ocean, east of Tanzania.

At T+48, convergence continues to prevail over northern Madagascar, central to western Tanzania, Zambia, northern Angola, Lake Victoria, southern DRC and Zimbabwe. There is a weak trough over southern South Africa associated with very strong southwesterlies over there.

At T+72, there is a high pressure system west of South Africa, extending a ridge over Southern South Africa while pushing a trough system to the east. Convergence dominates central to northern Mozambique, Zambia, Zimbabwe, Malawi and northern Angola.

FLOW AT 200MB

At T+24, a high pressure system sits over northern Namibia extending a ridge towards Zimbabwe. A significant divergence dominates over 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 over Namibia. A divergence pattern which was dominating Indian Ocean has shifted towards central Tanzania otherwise there is a convergence over southern Madagascar.

At T+72, a high pressure system over Namibia has slightly weakened. Strong southeasterlies dominate northern part of the sub continent, otherwise no significant flow pattern over the rest of the sub continent.

Author: Augustino Nduganda (Tanzania Meteorological Service and African Desk)