



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 14TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 14TH JANUARY 2008

Valid: 00Z 15TH JANUARY 2008-00Z 17TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 15TH JAN 2008

During this period, 20-50mm is expected over western DRC; 20-40mm over southern Malawi, central Zambia and western Mozambique. 5-30mm over southeastern, central to northern South Africa, western Botswana, eastern Namibia, northern Botswana, central to northern Mozambique, southern to northern Zambia, eastern Angola, northern South Africa and central to northern Madagascar; 5-20mm over southern, southwestern and western Tanzania, Lake Victoria Basin and eastern to southern DRC

DAY 2: 16TH JAN 2008

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

DAY 3: 17TH JAN 2008

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

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 14TH 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 centered at 38S 38E ridging towards northern South Africa while causing onshore flow on the southern Mozambique and offshore flow on the eastern South Africa. A St Helena high pressure has situated far to the west at 33S 24W causing a weak onshore flow on Angola coast. There is a Low pressure system over the southern tip of South Africa associated with a frontal system situated southwest of the country. Low pressure systems associated with convergence dominate central to northern South Africa, western Botswana, eastern Namibia, northern Zimbabwe, Mozambique, Zambia, Malawi, southern to southwestern Tanzania, western DRC and eastern Angola. Also, weak convergence exists over central to northern Madagascar, western Tanzania and eastern to southern DRC.

At T+48, a Mascarine high pressure system has shifted to the east having little influence on the sub continent. A Mascarine high pressure systems has slightly shifted to the east, continues to push the frontal system to the east and now it is touching the tip of South Africa. Convergence dominates central to northern South Africa, eastern Namibia, Botswana, Zimbabwe, central to northern Mozambique, Malawi, Zambia, central to southern Angola, southern, southwestern and western Tanzania, Lake Victoria Basin, Madagascar and eastern DRC.

At T+72, a Mascarine high pressure system has shifted further to the east. St Helena high pressure system has also shifted to the east, centered at 34S 17E ridging to the east and pushed the frontal system further to the east, now touching the northeastern part of South Africa associated with a Low pressure system over there. Convergence dominates central to northern South Africa, eastern Namibia, Botswana, Zimbabwe, Mozambique, southern Angola, Malawi and Madagascar. Large part of Tanzania is dominated by divergence pattern.

FLOW AT 500MB

At T+24, a sub tropical high pressure cell sits over the northern part of South Africa, causing divergence over there. A trough associated with a Low pressure system has situated to the southwest of South Africa. These two systems contributed to convergence stretching from eastern Namibia towards eastern South Africa. Convergence dominates Mozambique, Malawi and Zambia otherwise easterlies dominate northern part of the sub continent.

At T+48, a sub tropical high pressure system has almost maintained the position while a trough system which was situated to the southwest of South Africa has filled up.

Convergence dominates northern Mozambique, Malawi, northern Zambia and Zimbabwe otherwise weak convergence over southern Botswana stretching towards eastern South Africa.

At T+72, a sub tropical high pressure system has shifted to the east towards 26S 36E ridging towards Zimbabwe and central to northern Zambia. It is associated with convergence over northern Mozambique, southern Tanzania, western Zambia and eastern Angola. There is also a significant convergence over the southern part of Madagascar.

FLOW AT 200MB

At T+24, a high pressure cell associated with divergence sits over northern South Africa. There is a trough system southwest of South Africa, together with a high pressure system, they both contribute towards northwesterly Jet Stream with a maximum speed of 110Kts southwest of South Africa but 85Kts over the southern South Africa. Strong southwesterlies dominates northern part of the sub continent.

At T+48, a trough system has filled up but a high pressure cell has slightly shifted eastwards, now centered at 26S 33W and ridging towards central Namibia. A northwesterly Jet Stream prevails over South Africa, reaching 95Kts over southern parts otherwise strong southwesterlies dominates northern part of the sub continent.

At T+72, a high pressure cell has shifted further to the east, now centered at 25S 38E ridging towards southern Mozambique. A northwesterly Jet Stream reaching 100Kts continues to prevail over the southeastern South Africa. Convergence dominates southern to southwestern part of Tanzania. Strong southwesterlies continues to dominate northern part of the sub continent.

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