



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 15TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 15TH JANUARY 2008

Valid: 00Z 16TH JANUARY 2008-00Z 18TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 16TH JAN 2008

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

DAY 2: 17TH JAN 2008

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

DAY 3: 18TH JAN 2008

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

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 15TH 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 west causing a weak onshore flow on the eastern side of the sub continent. A St Helena High pressure system has centered at 33s 22W ridging eastwards while pushing a frontal system to the east, now touching the tip of South Africa. The Low pressure systems associated with convergence dominates central to northern South Africa, eastern Namibia, western Botswana, northern Zimbabwe, central to northern Mozambique, Zambia, central to eastern Angola, western, central to eastern DRC, Malawi, western Tanzania and Lake Victoria Basin.

At T+48, a frontal system has shifted to the east and associated with convergence over the northern to northeastern South Africa. A St Helena High pressure has also shifted to the east, centered at 34S 10W ridging eastwards. Convergence continues to dominate central to northern Mozambique, northern Madagascar, Malawi, northern Zimbabwe, western Botswana, northern Namibia, southern Angola, southern to eastern DRC and weak convergence on the western Tanzania.

At T+72, a frontal system has shifted further to the east as a result of being pushed by a St Helena High pressure system which is centered at 36S 4W. The high pressure system is causing onshore flow on the eastern South Africa. Convergence continues to dominate central to northern Mozambique, northern Madagascar, Zimbabwe, northern South Africa, Botswana, eastern Angola, Zambia and Malawi otherwise great part of Tanzania and DRC are dominated by divergence pattern.

FLOW AT 500MB

At T+24, a sub tropical high pressure cell sits over the northeastern South Africa causing divergence over there and strong northwesterlies to westerlies over southern South Africa. Convergence prevails over northern Mozambique, southern Tanzania, Malawi, northern Zimbabwe, Zambia, western DRC and northern Angola.

At T+48, a sub tropical high pressure system has almost maintained the position and continues to contribute towards strong westerlies over the southern South Africa. A weak convergence dominates northern Mozambique, Malawi, Zambia, southern Madagascar, and eastern Angola.

At T+72, a sub tropical high pressure system continues to maintain the position over the northeastern South Africa. There is a weak trough system south of South Africa, together with a high pressure system, they both contribute towards strong westerlies over southern

South Africa. Convergence continues to dominate central to southern Madagascar, northern Mozambique, Malawi, Zambia and northern Namibia.

FLOW AT 200MB

At T+24, a high pressure cell associated with divergence sits over northeastern South Africa. There is a weak trough system south of South Africa, together with a high pressure system, they both contribute towards a northwesterly Jet Stream with a maximum speed of 105Kts south of South Africa but 85Kts over southern South Africa. Very strong southerlies dominate Madagascar but strong southeasterlies over the northern part of the sub continent.

At T+48, a high pressure system continues to dominate northeastern part of the sub continent. A weak trough system has almost maintained the position south of South Africa. These two systems continue to cause a northwesterly Jet Stream over southern South Africa. Very strong southeasterlies dominate Madagascar.

At T+72, a high pressure cell has retrograded to the west, now centered over Botswana at 22S 22E causing divergence over there. A weak trough system has continued to maintain the position south of South Africa, together with a high pressure system, they contribute towards a westerly Jet Stream with a maximum speed of 100Kts over South Africa. Convergence associated with very strong wind dominates Madagascar, extending towards Tanzania.

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