



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 16TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 16TH JANUARY 2008

Valid: 00Z 17TH JANUARY 2008-00Z 19TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 17TH JAN 2008

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

DAY 2: 18TH JAN 2008

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

DAY 3: 19TH JAN 2008

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

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 16TH 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 causing a weak onshore flow on the eastern side of the sub continent. A St Helena High pressure system has centered at 33S 16W ridging eastwards while pushing a frontal system to the east, now touching the eastern side of South Africa. Convergence associated with Low pressure systems continue to dominate northern Madagascar, central to northern Mozambique, eastern to northern South Africa, Zimbabwe, northern Botswana, northern Namibia, southern Angola, Zambia and Malawi. Weak convergence prevails over the western Tanzania and eastern DRC.

At T+48, a frontal system has shifted to the east but associated with a Low pressure system and convergence over the eastern to northeastern South Africa. A St Helena high pressure system has shifted to the east, centered at 36S 13W associated with onshore flow on the southern South Africa. Convergence continues to dominate eastern Namibia, Zimbabwe, Botswana, Mozambique, Malawi, Zambia, eastern Namibia and northern Madagascar. Weak convergence continues to prevail over western Tanzania and eastern DRC. There is a long track of wind over the Indian Ocean causing onshore flow on the eastern Tanzania

At T+72, a frontal system has further shifted to the east. A St Helena high pressure system has further shifted to the east and forming a high pressure cell on the eastern South Africa. Convergence dominates Mozambique, Zimbabwe, Botswana, eastern Namibia, central to eastern Angola, Malawi and Zambia otherwise weak divergence over central to northern Tanzania and DRC. The onshore flow on the eastern Tanzania continues to prevail.

FLOW AT 500MB

At T+24, a sub tropical high pressure cell sits east of South Africa, ridging towards Botswana. Convergence dominates northern Mozambique, Malawi, Zambia and eastern Angola otherwise strong westerlies over the southern South Africa but easterly over the northern part of the sub continent.

At T+48, a sub tropical high pressure system has retrograded to the west towards northern South Africa and ridging over Botswana. Convergence dominates northern Zimbabwe, northern Botswana Zambia and Malawi. No significant change in the flow pattern over the rest of the sub continent.

At T+72, a sub tropical high pressure system has continues to retrograte to the west, it is now centered over western Botswana. Convergence dominates Zimbabwe, eastern Angola, southern Zambia and northern Namibia. No significant change in flow pattern over the rest of the sub continent.

FLOW AT 200MB

At T+24, a high pressure cell associated with divergence sits over the eastern South Africa, extending a ridge towards Botswana. A northwesterly Jet Stream with a maximum speed of 125Kts is situated south of South Africa but 75Kts over southern Africa. Very strong southeasterlies dominate southern parts of Madagascar.

At T+48, a high pressure system associated with divergence has retrograted to the west towards Botswana. A westerly Jet Stream with a maximum speed of 90Kts prevails over southern South Africa. There is a Low pressure system over southern Madagascar extending a trough towards Tanzania, it is associated with very strong wind over there.

At T+72, a high pressure cell associated with divergence has continues to retrograte to the west, now sits over northern Namibia. A westerly Jet Stream with a maximum speed of 95Kts continues to dominate southern Africa. A Low pressure system over Madagascar has filled up and replaced by a trough system extending towards Tanzania.

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