



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 07TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 07TH JANUARY 2008

Valid: 00Z 08TH JANUARY 2008-00Z 10TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 08TH JAN 2008

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

DAY 2: 09TH JAN 2008

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

DAY 3: 10TH JAN 2008

During this period, 40-60mm is expected over southern Zambia, northeastern Botswana, western to southern Zimbabwe, 30-50mm over northern Malawi, northern Zambia and northern Mozambique; 20-40mm over southern Mozambique and northern South Africa; 5-30mm over southern to southwestern Tanzania, central and western Zambia, northern Zimbabwe and northwestern Mozambique, central to northern Madagascar.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 07TH 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 having no influence to the sub continent. A St Helena high pressure has situated at 34S 5W ridging southeastwards while causing a weak onshore flow on Angola coast and southern to eastern coasts of South Africa. The area of convergence has situated to the east of Madagascar. A trough system has situated to the east of South Africa, where the axis extends to the point 20S 40E causing convergence on the southern Madagascar. There is a strong convergence over the eastern Angola, western and northern Zambia, northern Botswana and northern Namibia otherwise weak convergence over central to northern Mozambique, Malawi, northern Zimbabwe, southwestern to western Tanzania and northern South Africa. The eastern Tanzania and southern DRC are dominated by a weak divergence.

At T+48, a Mascarine high pressure system continues to be situated far to the east. A St Helena High pressure system has slightly retrograded to the west, now centered at 33S 8W continues to cause a weak onshore flow on Angola coast and eastern to northeastern South Africa. Strong convergence continues to dominate eastern Angola, western Zambia, northern Botswana and northern Namibia otherwise weak convergence over the central to northern Mozambique, Malawi, northern Zimbabwe, northern South Africa, southwestern to western Tanzania. A trough system has slightly shifted to the east and continues to cause convergence on the southern Madagascar. Divergence dominates eastern Tanzania. The convergence area continues to prevail east of Madagascar, extending southwards.

At T+72, a St Helena High pressure system continues to retrograde to the west, now centered at 33S 15W. A new high pressure cell has formed east of South Africa at 26S 33E causing a divergence over there but onshore flow on the southern Mozambique. Strong convergence dominates Zambia, eastern Angola, northern Namibia, northern Botswana, northern Zimbabwe and Mozambique otherwise weak convergence over the southwestern to southern Tanzania and northern Madagascar. Divergence continues to prevail on eastern Tanzania.

FLOW AT 500MB

At T+24, there is a trough system situated south of South Africa causing strong westerlies over South Africa. A weak high pressure cell sits over Zimbabwe otherwise convergence dominates Zambia, eastern Angola and northern Mozambique.

At T+48, a trough system has slightly deepened, shifted eastwards where the southeast-northwest axis has extended towards northern South Africa. A weak high pressure system has now centered over Mozambique Channel at 20S 42E causing divergence over there. Convergence dominates central Mozambique, Zambia, southern DRC, eastern Angola, northern Zimbabwe, Malawi, central Madagascar, northern South Africa otherwise divergence over most parts of Tanzania and eastern Angola.

At T+72, a trough system has filled up otherwise westerlies dominates South Africa. Convergence dominates southern Madagascar, central Madagascar, Zimbabwe, Botswana, Zambia and Malawi. Weak divergence continues to dominate most part of Tanzania and eastern DRC. A weak high pressure which was over the Mozambique Channel has shifted towards east of Madagascar.

FLOW AT 200MB

At T+24, a high pressure cell sits over northern Botswana at 18S 25E causing divergence over there. An upper level trough has situated south of South Africa, together with a high pressure system, they contribute to a westerly Jet Stream with a maximum speed of 90Kts over South Africa. Strong southeasterlies dominates northern part of the sub continent.

At T+48, a high pressure system has retrograded to the west, now centered over the northern Namibia at 18S 18E associated with divergence over there. A trough system has shifted eastwards, where the axis extends towards central South Africa. These two systems contribute towards a westerly Jet stream reaching a maximum speed of 110Kts over northeastern South Africa.

At T+72, a high pressure system has almost maintained the position. A new high pressure cell has developed over the Zambia causing divergence over there. A trough system has filled up, otherwise very strong westerlies dominates northern part of South Africa. Strong southeasterlies dominated northern part of the sub continent.

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