



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 11TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 11TH JANUARY 2008

Valid: 00Z 12TH JANUARY 2008-00Z 14TH JANUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 12TH JAN 2008

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

DAY 2: 13TH JAN 2008

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

DAY 3: 14TH JAN 2008

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

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 11TH 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 36S 48E ridging towards northern South Africa while causing offshore flow on the eastern South Africa. A St Helena high pressure system has situated far to the west, centered at 20S 24W ridging southeastwards while headed by a frontal system touching southern part of South Africa. Convergence dominates northern Mozambique, northern Madagascar, Malawi, Namibia, northern Zimbabwe, Zambia, western Botswana, eastern Angola, western DRC associated with Low pressure systems. Large area of Tanzania is dominated by divergence.

At T+48, a Mascarine high pressure system has shifted to the east, ridging slightly on the southern part of Mozambique while continue to cause offshore flow on the eastern South Africa. A St Helena high pressure has almost maintained the position, but continues to ridge southeastwards and pushing the frontal system to the east, now touching eastern part of South Africa. Convergence dominates northern Mozambique, Malawi, northern Zimbabwe, northern Botswana, northern Namibia, southern Angola and central to western South Africa otherwise slight divergence on the northern Angola, central Zambia and large part of Tanzania.

At T+72, a Mascarine high pressure system has shifted further to the east, ridging slightly on the eastern Mozambique. There are two cell of St Helena high pressure, once centered far to the west and the other one further south at 43S 3E ridging over the southern South Africa and continue to push the frontal system further to the east. The convergence dominates central to western South Africa, northern Botswana, Namibia, southern Zambia, Zimbabwe, northern Mozambique while divergence continue to prevail on the northern Angola, northern Zambia and Tanzania.

FLOW AT 500MB

At T+24, a weak sub tropical high pressure cell sits over the Mozambique Channel and southern parts of Madagascar ridging towards Mozambique and Zimbabwe areas. There is a trough system situated to the west of South Africa contributing towards strong northwesterlies over southern part of South Africa. A weak convergence dominates Botswana, southern Namibia, northern South Africa and western DRC. Southeasterlies dominates northern part of the sub continent.

At T+48, a Weak sub tropical high pressure system continues to dominate Mozambique Channel and southern parts of Madagascar while ridging towards northern South Africa and southern Zimbabwe. A trough system has maintained the position but now deepened. These two systems contribute to a convergence area from Botswana stretching towards central to southern South Africa. Easterlies dominate northern part of the sub continent.

At T+72, a sub tropical high pressure system has retrograded to the west towards northern South Africa and intensified. A trough system which was situated to the west of South Africa has also deepened and forming a closed Low at 29S 4W, together with a high pressure system over northern South Africa, they both contribute towards a convergence from western Botswana and eastern Namibia stretching towards western South Africa.

FLOW AT 200MB

At T+24, a high pressure cell associated with divergence sits over northern Botswana. There is a trough system situated to the west of South Africa. These two systems contribute towards very strong northwesterlies to westerlies over South Africa. Strong southeasterlies dominates northern part of the sub continent.

At T+48, a high pressure cell has slightly shifted southeastwards. A trough system has now deepened, together with a high pressure system over Botswana, they both contribute towards a Jet Stream with a maximum speed of 135Kts south of the sub continent but 85Kts over southern South Africa. Strong southeasterlies continues to dominate northern part of the sub continent.

At T+72, a high pressure cell now sits over northern South Africa causing divergence over there. A trough system to the west of South Africa continues to deepen, forming a closed Low at 33S 3E. The two systems continue to contribute towards a northwesterly Jet Stream with a maximum speed of 135Kts south of the sub continent but 90Kts over southern South Africa.

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