



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

**SHORT RANGE FORECAST DISCUSSION 14H00 EST 17<sup>TH</sup> DECEMBER 2007**

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

**FORECAT DISCUSSION 14H00 EST, 17<sup>th</sup> DECEMBER 2007**

**Valid: 00Z 18<sup>th</sup> DECEMBER 2007-OOZ 20<sup>th</sup> DECEMBER 2007**

**1: 24HR RAINFALL FORECAST**

**DAY 1: 18<sup>TH</sup> DEC 2007**

During the period, 40-60mm is expected over northeastern South Africa, southern Mozambique, central/eastern Botswana, southern Zimbabwe, extreme northern Angola and southern Congo Republic; 30-50 mm over central/southern DRC; 20-30mm over southwestern Tanzania and northern Zambia; 5-20mm over northern Zimbabwe, northern Madagascar, northern Botswana, central Mozambique, central Zambia, central/western/southern Tanzania, central/eastern DRC and northern Angola.

**DAY 2: 19<sup>TH</sup> DEC 2007**

During this period, 40-60mm is expected over northern Zimbabwe, southern Mozambique, eastern Botswana and eastern DRC; 10-20mm over central/ southwestern/southern Tanzania, northern Malawi and northern Zambia; 5-15mm over central/northern Mozambique, extreme northern South Africa, central Zambia, southern Malawi, central/southern DRC, northern Angola, southern Congo Republic and northern Madagascar.

**DAY 3: 20<sup>TH</sup> DEC 2007**

During this period, 20-40mm is expected over southern Mozambique and central/eastern Zimbabwe; 5-20mm over central Mozambique, northern Zimbabwe, Malawi, central/northern Zambia, southwestern Tanzania and southern DRC

### **FLOW AT 850MB**

At T+24, a trough system extends from south towards southern parts of Mozambique and northern parts of South Africa. It is causing convergence over there. Also, strong convergence is dominating northern parts of Botswana, Zimbabwe, northern Namibia, southern Angola, western/central/southwestern Tanzania, Zambia and western/southern DRC. A St Helena high pressure having two cells is ridging behind a trough, one cell is centered at 26S 17W and another at 43S 9E. It is causing onshore flow on the southern part of South Africa and Angola coast.

At T+48, a trough system has shifted to the east and continues to cause convergence over southern part of Mozambique. Convergence continues to be a dominant feature over Zimbabwe, Zambia, northern Namibia, eastern Angola, central/western/southwestern Tanzania and southern/eastern DRC. The two cells of St Helena high pressure system shifted eastwards, one centered at 30S 15E and another at 40S 23E.

At T+72, a new Mascarene high pressure has centered at 38S 34E causing onshore flow on Mozambique coast. A trough system continues to shift to the east, as a result of being pushed by a Mascarene High pressure system. Wind convergence dominates central Mozambique, Zambia, northern Namibia, eastern Angola but a weak divergence prevails over central/southwestern Tanzania.

### **FLOW AT 500MB**

At T+24, a trough system is situated south of South Africa causing strong wind over there. The rest of the sub continent has no significant flow pattern.

At T+48, a trough system has shifted eastwards. A great part of the sub continent continues to have no significant flow pattern.

At T+72, a trough system continues to shift eastwards. The wind convergence is a dominant feature over Zambia. Westerly/northwesterly dominates northern part of the sub continent otherwise no significant flow pattern over the rest of the sub continent.

### **FLOW AT 200MB**

At T+24, a high pressure cell sits over Zimbabwe and causing divergence over there. A trough system is situated southwest of the sub continent, together with a high pressure cell, they both contribute to a northwesterly Jet Stream over South Africa. Strong southeasterlies-easterlies dominate northern part of the sub continent.

At T+48, a trough system has slightly shifted to the east but its northwest-southeast axis is closer to the tip of South Africa. A high pressure cell has shifted to the east, now centered at 20S 32E causing convergence over there. These two systems continue to contribute towards a Jet Stream over South Africa. Strong southeasterlies-easterlies continue to dominate northern part of the sub continent.

At T+72, a trough system has filled up but a new weak trough has developed on the western South Africa. A high pressure continues to shift eastward, now centered over Mozambique Channel at 24S 38E and causing divergence over the area. Strong northwesterlies contributed by these systems prevails over South Africa.

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