



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

**SHORT RANGE FORECAST DISCUSSION 14H00 EST 06<sup>th</sup> FEBRUARY 2008**

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

**FORECAST DISCUSSION 14H00 EST, 06<sup>TH</sup> FEBRUARY 2008  
Valid: 00Z 07<sup>TH</sup> FEBRUARY 2008-00Z 09<sup>TH</sup> FEBRUARY 2008**

**1: 24HR RAINFALL FORECAST**

**DAY 1: 07<sup>TH</sup> FEB 2008**

During this period, more than 30mm with a Probability Of Precipitation (POP) 60% is expected over western to southern Tanzania, 40% over eastern to central Tanzania and Lake Victoria Basin, 30% over northwestern Madagascar; More than 20mm with POP 75% is expected over northern Mozambique and northern Malawi, 60% over southern Angola, western Zambia and southern DRC and 30& over northern Madagascar.

**DAY 2: 08<sup>TH</sup> FEB 2008**

During this period, more than 30mm with a POP 60% is expected over northern Malawi, 30% over northern Madagascar; More than 20mm with POP 60% is expected over northern Mozambique and southern Angola, 30% over eastern to southern Madagascar, southwestern, central to southern Tanzania, northern and western Zambia.

**DAY 3: 09<sup>TH</sup> FEB 2008**

During this period, more than 40mm with POP 60% is expected over northern Malawi, 40% over southeastern Madagascar; More than 30mm with POP 60% over northern Madagascar, 40% over northern Mozambique and southern Angola; More than 20mm with POP 60% is expected over western and northern Zambia, and southern DRC, 40% over southwestern to southern Tanzania.

## **2: MODELS DISCUSSION:**

*Models comparison (Valid from 00Z; 06<sup>TH</sup> FEBRUARY 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 far to the east ridging slightly towards eastern South Africa and causing onshore flow on eastern Madagascar followed by a frontal system touching eastern South Africa. A St Helena high pressure system has centered at 35S 1E ridging towards southern South Africa and causing onshore flow on eastern Angola. There is convergence over western Mozambique, northern Mozambique, Zambia, eastern to southern Angola, central South Africa otherwise diffluent pattern over Botswana, Namibia, southern DRC and central to northeastern Tanzania.

At T+48, a frontal system has shifted further to the east and associated with a Low pressure system causing convergence on the southern Madagascar. A St Helena high pressure system has slightly shifted to the east and ridging strongly south of South Africa. Strong convergence dominates southern Angola otherwise a weak convergence over northern Namibia, northern Mozambique, western Zambia, central to northern South Africa otherwise weak diffluent continues to prevail over southern DRC and northeastern Tanzania.

At T+72, a frontal system has shifted further to the east and associated with convergence over eastern Madagascar. A St Helena high pressure system has shifted to the south of South Africa and causing an onshore flow on the southern Mozambique. Strong convergence over southern Angola has slightly relaxed otherwise convergence continues to prevail over northern Mozambique, western and northern Zambia, northern Namibia, western DRC and Lake Victoria Basin. A weak diffluent pattern continues to prevail over northeastern Tanzania.

### **FLOW AT 500MB**

At T+24, a weak high pressure system sits southwest of South Africa and ridging towards the country. There is convergence over northern Mozambique and Zambia otherwise a long track of southwesterly to westerly dominates DRC towards southwestern to southern Tanzania. A weak divergence dominates southern Madagascar.

At T+48, a weak high pressure system has almost maintained the position southwest of South Africa. Convergence dominates Botswana, Zambia, northern Mozambique, Malawi, southern Angola and northern Madagascar otherwise southwesterlies to westerlies continues to dominate Tanzania and DRC.

At T+72, a weak high pressure system now sits over southern South Africa and ridging northwards. Convergence dominates Zimbabwe and Botswana while diffluent pattern over western Zambia. A long track of westerlies to northwesterlies continues to prevail over DRC to Tanzania.

### **FLOW AT 200MB**

At T+24, a high pressure sits northwest of Namibia ridging towards Zambia. There is a weak trough extending from southeast of South Africa to central part. These two systems contribute to very strong westerlies over southern Botswana, southern Namibia and northern South Africa. A high pressure cell causing divergence sits over western Madagascar.

At T+48, a high pressure over northwest Namibia has almost maintained the position. A trough system has extended towards central Namibia and associated with a Low pressure cell over there. The two systems continue to contribute towards very strong northwesterlies over northern Namibia, southern Botswana and northern South Africa. Divergence over Botswana has slightly shifted to the west.

At T+72, a weak high pressure system associated with divergence sits over northern Mozambique and Zambia. A trough system over Namibia has slightly filled up. These two systems contribute to very strong northwesterlies to westerlies over southern Botswana to northern South Africa.

*Author: 1. Augustino Nduganda (Tanzania Meteorological Service and African Desk)  
2. Guy Razafindrakoto (Madagascar Meteorological Service and African Desk)*