



Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 12TH FEBRUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 12TH FEBRUARY 2008

Valid: 00Z 13TH FEBRUARY 2008-00Z 15TH FEBRUARY 2008

1: TROPICAL CYCLONE SUMMARY.

During this period, a Tropical Cyclone Ivan is expected to be situated far east of Madagascar and moving slowly southwestwards.

2: 24HR RAINFALL FORECAST

DAY 1: 12TH FEB 2008

During this period, more than 30mm with a Probability Of Precipitation (POP) 60% is expected over extreme northern Madagascar and 50% over northern Angola and southwestern DRC; More than 20mm with POP 50% over northeastern South Africa, 40% over western to southern Tanzania and southern DRC.

DAY 2: 13TH FEB 2008

During this period, more than 20mm with POP 50% is expected over central to eastern Tanzania; More than 20mm with POP 40 % over northern Madagascar.

DAY 3: 14TH FEB 2008

During this period, not more than 20mm is expected over the area.

3: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 12TH 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 is expected to be centered at 35S 60E ridging eastwards. A Tropical Cyclone Ivan is expected to be located at 15S 62E causing a weak convergence over northern Madagascar but contributes to divergence over central to southern Madagascar. A frontal system is expected to be situated to the east of South Africa and pointing towards northeastern part of the country. A St Helena high pressure system is situated far to the west, ridging eastwards and forming a high pressure cell south of South Africa. Convergence prevails over eastern Tanzania, northern Mozambique, central to western DRC, Namibia, southern Zambia and northern South Africa otherwise diffluent pattern over southern DRC, western Tanzania and Angola.

At T+48, a Mascarine high pressure system has slightly shifted to the east followed behind by a frontal system. A Tropical Cyclone Ivan has also slightly shifted westwards together with Mascarine high pressure system, they both expect to continue causing diffluent pattern over central to southern Madagascar. A weak high pressure system is expected to be situated southeast of South Africa and ridging towards South Africa. Weak convergence prevails over southern Angola, Botswana, Namibia but diffluent pattern continues over southern DRC, western Tanzania, Zambia and northern Mozambique.

At T+72, a Tropical Cyclone Ivan is expected to continue shifting eastwards and centered at 16S 56E causing a weak convergence over northern Madagascar but a diffluent over central to southern part of the country. A Mascarine high pressure is expected to be centered at 35S 58E ridging slightly over northern South Africa. Weak convergence prevail over central to southern Tanzania, central to southern Angola, Namibia otherwise a diffluent pattern over southern DRC, northern Mozambique and Zambia.

FLOW AT 500MB

At T+24, convergence associated with Tropical Cyclone Ivan is expected to be situated east of Madagascar, dragging westerlies through DRC and Tanzania while causing convergence over the areas. A weak trough system is expected to be situated southeast of South Africa and associated with diffluent pattern over southern Mozambique. A sub tropical high pressure system is expected to sit over Namibia and causing divergence over there.

At T+48, a Tropical Cyclone Ivan is expected to shift slightly to the east. There is a high pressure system southeast of Madagascar, together with a tropical Cyclone Ivan, they expect to cause diffluent pattern over northern Madagascar. A weak trough system which was situated southeast of South Africa is expected to shift to the east and contribute to cause diffluent pattern over southern Mozambique. A sub tropical high pressure system is expected to continue dominating Namibia while causing divergence over the area.

At T+72, a tropical Cyclone Ivan is expected to shift slightly to the east and contributes to diffluent pattern over southern Madagascar. A sub tropical high pressure system over Namibia has slightly shifted to the west and continues to cause divergence over the

country. Diffluent pattern is expected to prevail over southern Mozambique, Zambia, Zimbabwe, and western Tanzania.

FLOW AT 200MB

At T+24, divergence pattern associated with Tropical Cyclone Ivan dominates east of Madagascar. A high pressure causing divergence sits over Atlantic Ocean at 20S 5E. There is a trough system southeast of South Africa, together with a high pressure system over Madagascar, they both expect to contribute towards very strong southwesterlies over South Africa. Divergence dominates southern Tanzania and southern DRC otherwise convergence over northern Mozambique.

At T+48, divergence pattern associated with a Tropical Cyclone Ivan is expected to shift slightly to the south at 20S 60E. A trough system southeast of South Africa is expected to fill up. A high pressure over Atlantic Ocean is expected to maintain its position and contribute to very strong westerlies over South Africa. Upper level convergence continues to dominate northern Mozambique

At T+72, divergence associated with a Tropical Cyclone Ivan is expected to shift to 20S 44E. A high pressure over the Atlantic Ocean is expected to weaken but very strong southwesterlies are expected to continue dominating South Africa. Upper level convergence is expected to dominate Zambia and northern Mozambique.

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