Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 05th FEBRUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 05TH FEBRUARY 2008
Valid: 00Z 06TH FEBRUARY 2008-OOZ 08TH FEBRUARY 2008

1: 24HR RAINFALL FORECAST

DAY 1: 06TH FEB 2008

During this period, more than 30mm with a Probability Of Precipitation (POP) 60% is expected over western to southern Tanzania, central Zambia and southern DRC; More than 20mm with POP 70% over northern Mozambique and northern Botswana, 30% over western and northern Zambia, southern Angola and eastern Madagascar.

DAY 2: 07TH FEB 2008

During this period, more than 30mm with a POP 70% is expected over southern DRC, 60% over eastern Angola, 50% over southwestern to southern Tanzania, northern Malawi and northern Zambia; More than 20mm with POP 70% over central to eastern Tanzania, 60% over northern Mozambique, western Zambia and eastern Angola,305 over northeastern Madagascar, southern Angola and central Zambia.

DAY 3: 08TH FEB 2008

During this period, more than 40mm with POP 50% is expected over northern Malawi; More than 30mm with POP 50% over eastern Angola; More than 20% with POP 70% is expected over northern Zambia, 60% over northern Mozambique, 30% over southern Angola, western Zambia, central Madagascar, southwestern to southern Tanzania.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 05TH 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 towards eastern South Africa and causing onshore flow on eastern Madagascar and southern Mozambique. There is a frontal system to the south of South Africa ridging behind by a St Helena high pressure systems centered at 33S 8W. There is convergence over northern Mozambique, southern Tanzania, western Zambia, eastern Angola and central South Africa otherwise a weak diffluent over southern DRC, southwestern Tanzania, Botswana and Namibia.

At T+48, a Mascarine high pressure system has continues to shift to the east with a frontal system behind it, now touching eastern part of South Africa. A Mascarine high pressure has slightly shifted to the east and ridging towards southern South Africa and causing a weak onshore flow on Angolan coast. Convergence prevails on northern Mozambique, Malawi, southwestern Madagascar, western Zambia, eastern Angola and central South Africa but diffluent pattern continues to prevail on southern DRC and southwestern to northeastern Tanzania.

At T+72, a Mascarine high pressure system has shifted further to the east having little influence on the sub continent. A frontal system has shifted further to the east and associated with a Low pressure system south of Madagascar. A St Helena high pressure system continues to shift to the east, now centered at 36S 3W ridging south of South Africa and forming a high pressure cell over there. Convergence continues to prevail on northern Mozambique, Malawi, southern Tanzania, northern and western Zambia and southern Angola, otherwise a diffluent pattern on southwestern and northeastern Tanzania and southern DRC.

FLOW AT 500MB

At T+24, a high pressure system sits over southwestern Namibia extending a ridge towards central South Africa. There is a high pressure cell over the southern Madagascar. There is an area of Low pressure system north of Madagascar stretching towards eastern Tanzania. Weak convergence dominates southern DRC, eastern Angola and central Mozambique.

At T+48, a high pressure system has now shifted to the west of South Africa and ridging towards central part of the country. The high pressure cell which was over the southern

Madagascar has shifted towards western part of it. Convergence dominates eastern Angola, southern DRC, western to southern Tanzania and western Zambia.

At T+72, a high pressure system has shifted eastwards now centered over southern South Africa. A long track of wind flow dominates southern DRC towards Tanzania and associated with convergence over northern Mozambique, Malawi, Zambia, astern Angola and northern Botswana.

FLOW AT 200MB

At T+24, a high pressure associated with divergence dominates northern Namibia. There is trough system southeast of South Africa extending towards central South Africa. These two systems contribute to strong westerlies over northern South Africa, southern Namibia and southern Botswana. A high pressure cell also sits over southern Madagascar, otherwise very strong southeasterlies over northern South Africa.

At T+48, a high pressure which was over northern Namibia has shifted to the southern Zambia and causing divergence over there. A trough system has now filled up, otherwise a very strong westerlies continues to dominate southern Namibia, southern Botswana and northern South Africa. A high pressure which dominated southern Madagascar has now shifted towards western part otherwise strong southeasterlies continues to dominate northern South Africa.

At T+72, a high pressure system has filed up otherwise northern Mozambique, Zambia and Angola are dominated by weak high pressure system. There is a Low pressure system over southern Namibia causing convergence over there. Southeasterlies continues to dominate over northern part of the sub continent.

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