Forecasting guidance for Sever Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 30TH JANUARY 2008

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

FORECAST DISCUSSION 14H00 EST, 30TH JANUARY 2008
Valid: 00Z 31ST JANUARY 2008-OOZ 02ND FEBRUARY 2008

1: Tropical Cyclone Warning:

During the period, Tropical Strom Gula is expected to merge with Ex Tropical Cyclone Fame southeast of Madagascar deepens.

31st Jan 2008, 00Z, the position is expected to be 21.6S 53.1E and central pressure 998hPa.

01st Feb 2008, 00Z at 23.1S 54.8E and 997hPa.

02nd Feb 2008, 00Z at 26.7S 56.5E and 991hPa..

2: 24HR RAINFALL FORECAST

DAY 1: 31ST JAN 2008

During this period, more than 30mm with a Probability Of Precipitation (POP) 70% is expected over northwestern Madagascar, 50 % over northern Mozambique, Malawi, eastern Zambia and northeastern Zimbabwe and 30% over southern Zambia, southeastern Angola, northern Botswana and northwestern Zimbabwe.
More than 10mm with POP 80% over western to southern Tanzania, eastern to southern DRC, northern and western Zambia, 20% over central to eastern Angola, northern Namibia, central Botswana, central Zimbabwe, central Mozambique and southeastern Madagascar.

DAY 2: 01ST FEB 2008

During this period, more than 30mm with a POP 70% is expected over northern Mozambique, northern Malawi, southern Tanzania and Zambia and 50% over northwestern Madagascar;
More than 10mm with POP 70% is expected over central to western Tanzania and southern DRC, 60% over central to northern Madagascar and 10% over eastern Angola, northern Botswana, northern Zimbabwe, southern Malawi and central Mozambique.

DAY 3: 02ND FEB 2008

During this period, more than 30mm with POP 50% is expected over northwestern Madagascar, northern Malawi, northern and northwestern Zambia and extreme southern DRC:
More than 10mm with POP 75% over northern Mozambique, western too southern Tanzania, extreme northern Zambia, southern DRC and eastern to southern Angola, 50% over northern to southeastern Madagascar, 20% over southern Zambia, northern Zimbabwe and central Mozambique.

2: MODELS DISCUSSION:

Models comparison (Valid from 00Z; 30TH 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 located southeast of South Africa ridging towards northern South Africa. There is a frontal system to the south of South Africa ridging behind by a St Helana high pressure system. The Ex Tropical Cyclone Fame is located to the southeast of Madagascar and a second Moderate Tropical Storm Gula has located northeast of Madagascar, the two systems cause strong convergence over the area. Low pressure systems causing convergence dominates northern Mozambique, southern Tanzania, Malawi, northern and western Zambia and eastern Angola, otherwise diffluence over Botswana and western Tanzania. The high pressure over the Indian Ocean contributes towards strong northerly wind over eastern Tanzania.

At T+48, a Mascarine high pressure system has slightly shifted to the east and continues to ridge towards northern South Africa. A frontal system which was south of South Africa is almost stationary with St Helana high pressure system continues ridging behind it. The merged Tropical Storm Gula and Ex Fame are located southeast of Madagascar. Low pressure systems associated with convergence continues to prevail over northern Mozambique, southern Tanzania, northern Zambia and eastern Angola while diffluence over western Tanzania and Botswana.

At T+72, a Mascarine high pressure system has shifted to the east, continuing to ridge towards northern South Africa while causing onshore flow on southern Mozambique. A frontal system is now located to the southeast of South Africa. A St Helena high pressure system ridges over southern South Africa and causing a weak onshore flow on Angolan coast. A weak convergence is evident over eastern Angola and central to southwestern

Tanzania otherwise divergence over eastern Tanzania, Botswana and northern Zambia. The merged Tropical Storm Gula and Ex Fame is located further southeast of Madagascar.

FLOW AT 500MB

At T+24, a high pressure cell sits on the western South Africa extending a ridge towards eastern part of the country. The merged Tropical storm is seen on the southeast of Madagascar associated with convergence over the northern part for the country. A weak convergence dominates eastern Angola, Malawi and Zambia otherwise diffluence on the eastern Tanzania.

At T+48, a high pressure over South Africa has now shifted towards central South Africa. The merged Tropical Storms continue to maintain its position southeast of Madagascar. An area of convergence dominates northern Mozambique to eastern Angola while diffluence over central to eastern Tanzania and Namibia.

At T+72, a high pressure system causing divergence has maintained the position over central South Africa. The merged Tropical Storms has filled up and shifted further southeastwards. Convergence area prevails over northern Mozambique to eastern Angola otherwise divergence continues to persist over central to eastern Tanzania and Namibia.

FLOW AT 200MB

At T+24, high pressure cells causing divergence sits over northern Mozambique and northern Namibia. There is a trough system to south of Madagascar extending to the northern South Africa. These two systems contribute towards strong southwesterlies o westerlies over Namibia, Botswana, southern Zimbabwe and southern Mozambique otherwise southeasterlies over the northern part of the sub continent. Divergence associated with Tropical Storms is to the east of Madagascar.

At T+48, a high pressure cell which was situated over northern Mozambique has shifted towards northern Zambia and causing divergence over there. A high pressure cell which was over northern Namibia has retrograted to the west and centered at 23S 5E, ridging towards central South Africa. A trough system which was south of Madagascar has almost maintained the position, extending towards Botswana and associated with a Low pressure cell over there. Divergence associated with Tropical Storm continues to prevail east of Madagascar otherwise convergence over southern part of the country.

At T+72, a high pressure over Zambia has weakened, but still weak divergence continues to prevail. A Low pressure which was over Botswana has filled up and forms a trough which extends towards northern Namibia. Very strong northwesterlies associated with these systems dominates Botswana, northern South Africa and southern Mozambique. A divergence associated with a Tropical Storm has shifted further to the east but another divergence is evident on the northern part of the country.

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