Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 02nd , February, 2007

AFRICA DESK
CLIMATE PREDICTION CENTER
National Centers for Environmental predictions
National Weather Service
NOAA
Camp Springs MD 20746

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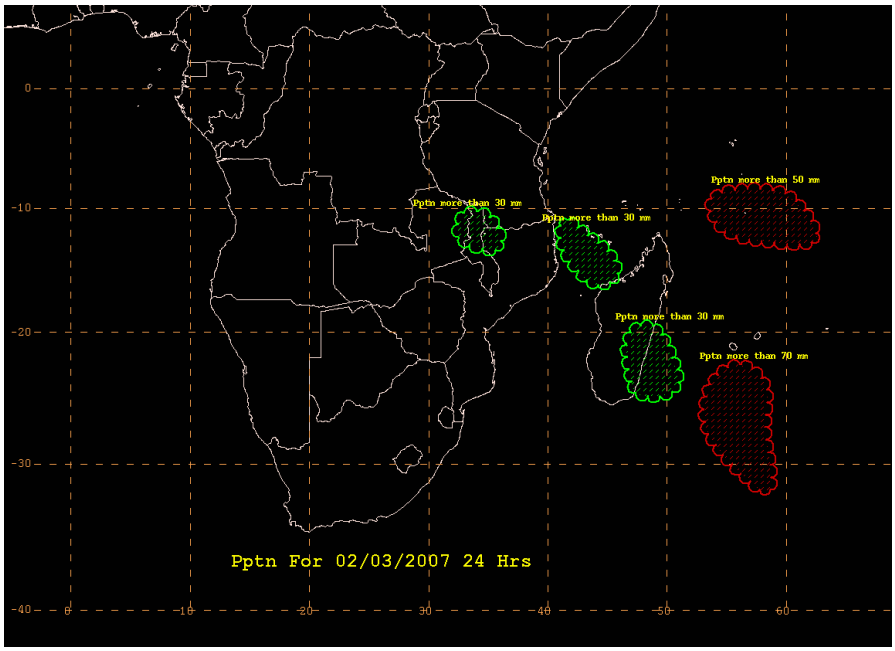
Valid: 00Z 03rd , February, 2007- 00Z 05th, February 2007.

At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows that there is a high pressure system that has split into two cells, with the cell located at 16°S 22°E causing divergence over the western parts of the sub continent and the cell centered at15°S 45°E causing divergence over the extreme northeastern parts and Madagascar. A back hanging westerly trough with its northwest axis lying at 20°S 30°E and its southeast axis lying at 60°S 35°E is causing convergence over the southeastern parts of the sub continent. At T+ 48 hrs there is no significant change. At T+72 Hrs a secondary trough with a closed circulation at 23°S 18°E has developed and is causing convergence over Namibia and southwestern Botswana. The back hanging westerly trough has shifted eastwards such that divergence prevails over the rest of the sub continent.
At 500hpa, the St Helena high has split into cells with ceters at 22°S 18°E and at 23°S 9°W, and is causing divergence over the southern and the western parts of the sub continent. The lows located at 11°S 35°E and at 24°S 50°E are causing convergence over the northeastern parts of the sub continent, including Madagascar. At T+48 hrs and at T+72 hrs the two cells of the St Helena high have merged, but otherwise the general pattern has not changed significantly over the sub continent.
At 850hPa, T + 24 Hrs the St Helena high centre is at 24°S 13°W with a curved ridge enclosing a cut-off high extending to southern Malawi, this ridge has pushed the meridional arm of the ITCZ to the north and the back hanging trough associated with a low to the east of this trough is between the St Helena high and the Mascarine high. The Mascarine high has its centre at 33°S 68°E with a curved ridge enclosing the cyclonic circulation (Tropical Cyclone) at 17°S 65°E. Area of convergence can be seen over Uganda due to the influence of Lake Victoria which modifies the weather surrounding the lake. At T + 48 Hrs the St Helena high has relaxed with its centre at 28°S 08°W. The Mascarine high has its centre beyond 70°E and the cutoff from St Helena has joined the Mascarine high with its center located at 32°S 39°E. Between the St Helena high and the

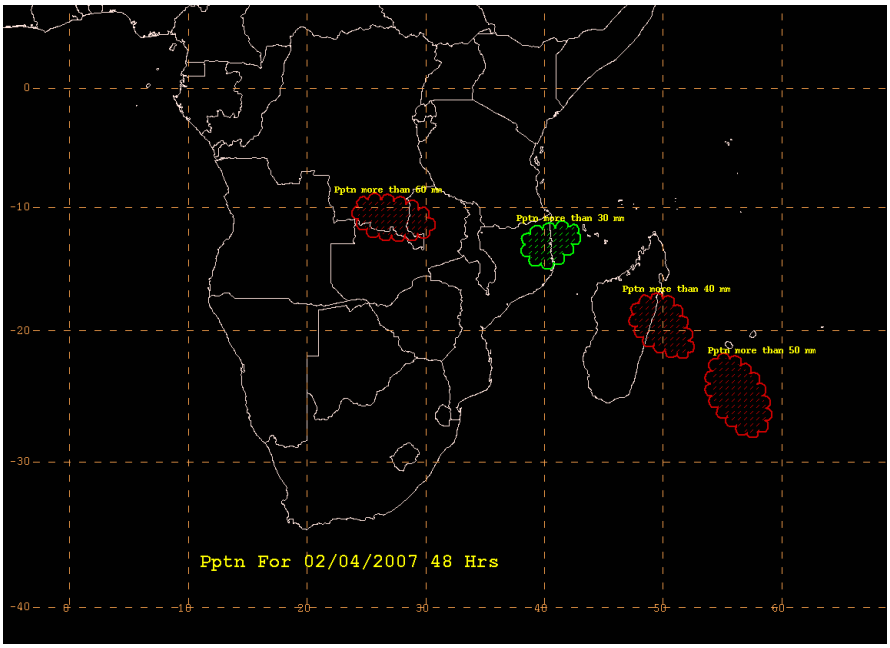
Mascarine high there is a shallow trough from the south associated with a cut off low also in phase with the meridional arm of the ITCZ. The tropical cyclone is stationary. Area of linear convergence can be seen over Zambia and cyclonic circulations can be seen over Madagascar and Angola. At T + 72 Hrs the St Helena high has its centre located at 28°S 18°W and the Mascarine high has its centre at 33S 67°E and can not be seen in the chart with a cutoff high located at 35°S 50° E. Between the St Helena high and the Mascarine high there is a shallow trough from the south in phase with meridional arm of the ITCZ. Area of convergence can be seen over southern Uganda and cyclonic circulations can be seen over Angola, Namibia, Madagascar and the Tropical cyclone at 18°S 65°E.

Generally there is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

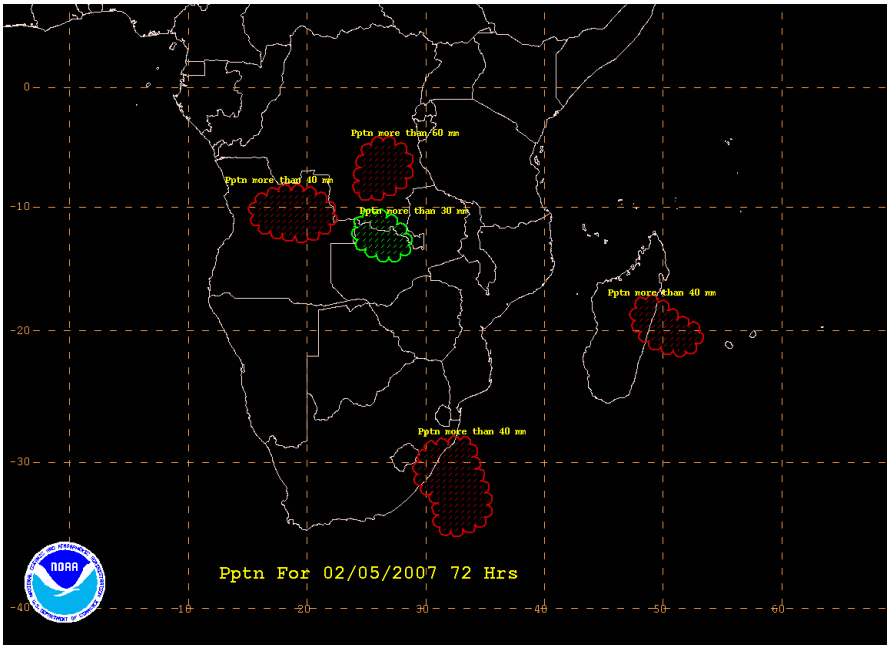
FORECASTMAPFORDAY1



FORECAST MAP FOR DAY2



FORECAST FOR DAY 3



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