



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 08th, January, 2007

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

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Valid 12:00Z 09th, January, 2007- 00z 11th, January 2007**

At T+24, the general pattern at 200hpa over the Southern Africa (South of the Equator) shows a strong anticyclone or high pressure system with two centers one at 16°S 15°E and the second one at about 15°S 43°E at the Mozambique channel. The prevailing flow is anticyclonic. At T+ 48 Hrs the high pressure system centre has slightly shifted to the east, and the flow is still anticyclonic. At T+72 Hrs the high pressure system has moved to the west and it has one center located at 14°S 28°E in central Zambia, also there is a trough in the Atlantic ocean approaching western coast of Southern Africa propagating eastward with a southeast axis. The general pattern of wind flow for the consecutive three days over the Southern Africa at this level is anticyclone.

At 500hpa the pattern shows that the St Helena high pressure in the Atlantic ocean, can be seen with its center is at 26°S 08°E and the Mascarine high pressure in the Indian ocean has its center at 16°S 64°E, between the two cells is the trough from the south with a southerly axis, convergence can be seen over northern Tanzania extending to south of lake Victoria and Burundi/Rwanda boarder, also there is a cyclonic circulation over western coast of Angola. A T+48 the systems indicate that the St Helena high pressure center in the Atlantic ocean, has moved to the east with its center at 26°S 10°E with its ridge with horizontal axis extending upto 43°E in western coast of Madagascar. The Mascarine high pressure centre in the Indian ocean has moved westwards to 19°S 61°E with its southeast axis ridge extending near Kenya coast. The convergence which was at the northern Tanzania extending to south of lake Victoria and Burundi/Rwanda boarder has moved to the southwest over DR. Congo, also the cyclonic circulation over western coast of Angola has shifted to eastern part of the country the other cyclonic circulation can be seen over northeastern Madagascar, also the trough from the south with a southeast axis from northern Mozambique coast extending to the southeastern coast of Madagascar has slightly shifted to the east. At T+72 the St Helena high pressure has moved to the east with its center at 23°S 17°E with its ridge axis extending southeast in

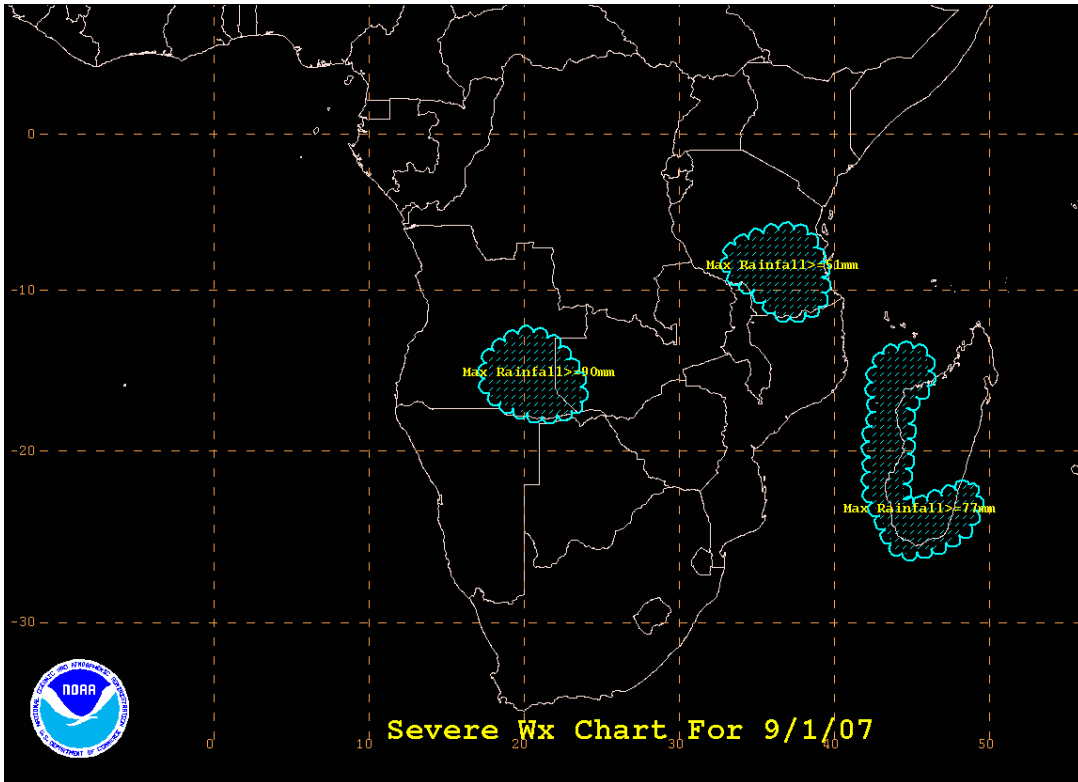
the Indian ocean. the Mascarine high pressure centre in the Indian ocean is stationary, the trough from the south with a southeast axis has slightly moved to the southeast .

At 850hpa, T + 48 Hrs the St Helena high pressure in the Atlantic ocean has its centre at 28°S 14°W and the Mascarine high pressure in the Indian ocean has its center is beyond 70°E, between St Helena high and the Mascarine high is a trough from the south which is located between Mozambique coast and Madagascar with a south est axis associated with a front, cyclonic circulation areas can be seen over Angola ,Zambia and northeast of Madagascar , otherwise there is a diffluent flow over Tanzania. At T + 48 Hrs the St Helena high pressure in the Atlantic ocean has its center at 25°S 22°W and the Mascarine high pressure in the Indian ocean its center is beyond 70°E, between St Helena high and the Mascarine high is a trough from the south which is located between Mozambique channel and Madagascar with a southeast axis associated with a front, cyclonic circulation areas can be seen over Angola, Zambia, Southern D R congo and southern Madagascar , otherwise the diffluent flow over Tanzania has shifted to the western part of the country. At T+72 Hrs the St Helena high pressure in the Atlantic ocean has its center at 25°S 20°W and it has a cutoff high to the east of south Africa and the Mascarine high pressure in the Indian ocean its center is beyond 70°E, between the cuoff of the St Helena high and the Mascarine high is a trough from the south which is now to the east of Madagascar with a southeast axis associated with a front, the cyclonic circulation areas have shifted westward one area is oversouthern Angola and the other one is over the Mozambique channel.

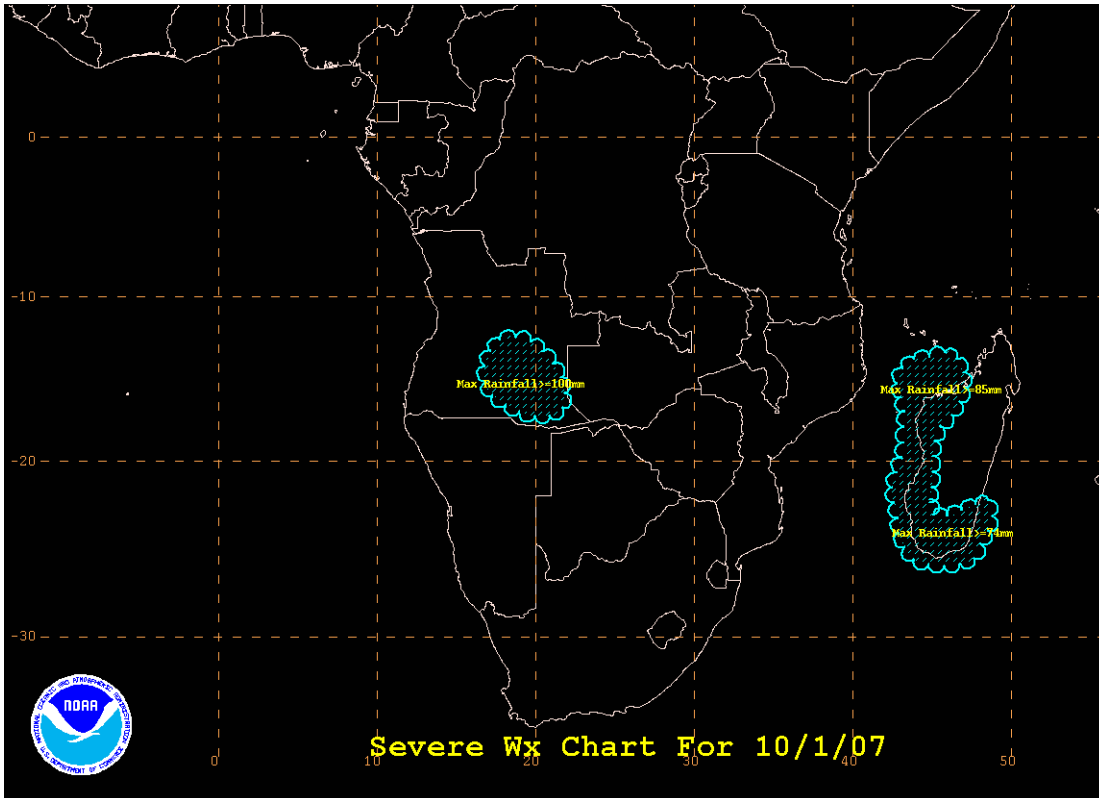
There is a resemblance in the patterns of UK- Met, ECMWF and GFS models because for the consecutive three days the 200hPa shows anticyclonic circulation while at lower levels the general flow is cyclonic which means there is a vertical motion in the area and the three models I mentioned above show similarity. .

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FORECAST MAP FOR DAY1



FORECAST FOR DAY2



FORECAST FOR DAY 3

