



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 04th, 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 05th, January, 2007- 00z 07th, 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 centered at about 22°S 37°E at the Mozambique channel. The prevailing flow south of 23°S in South Africa is northwesterly to westerly becoming southwesterly in the Indian ocean, at a speed of 30 to 80 knots. At T+ 48 Hrs the high pressure system centre has slightly shifted to the west at about 20°S 34°E in southern Mozambique. At T+72 Hrs the high pressure system has further shifted to the west at about 20°S 28°E in central Zimbabwe, and there is a trough in the Atlantic ocean approaching South Africa propagating eastward. 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 high pressure system at 200 hPa can also be seen at this level with its centre at 24°S 18°E in southern Namibia. The St Helena high pressure in the Atlantic ocean, can be seen with its center is at 27°S 25°W and the Mascarine high pressure in the Indian ocean has its center at 20°S 62°E, cyclonic circulation or low pressure areas can be seen over eastern Angola and eastern Madagascar, also there is a trough in the Atlantic ocean with a southeast axis. A T+48 the systems indicate that The St Helena high pressure in the Atlantic ocean, has moved to the east with its center at 25°S 18°W, the Mascarine high pressure centre in the Indian ocean has moved further to the east and can not be seen in the chart. The high pressure system at 200 hPa that can also be seen at this level has its centre at 25°S 22°E in southern Botswana, and it has a cutoff high over south of Madagascar in the Indian ocean. The cyclonic circulation or low pressure areas over eastern Angola and eastern Madagascar are still there, also the trough in the Atlantic ocean with a southeast axis has slightly shifted to the east. At T+72 there is an eastward shift of the systems. The St Helena high pressure in the Atlantic ocean, has moved to the east with its center at 29°S 05°W with its ridge extending upto Zimbabwe, the Mascarine high pressure centre in the Indian ocean is located at 37°S 55°E and the high pressure system at 200 hPa that can also be seen at this level has also shifted to the

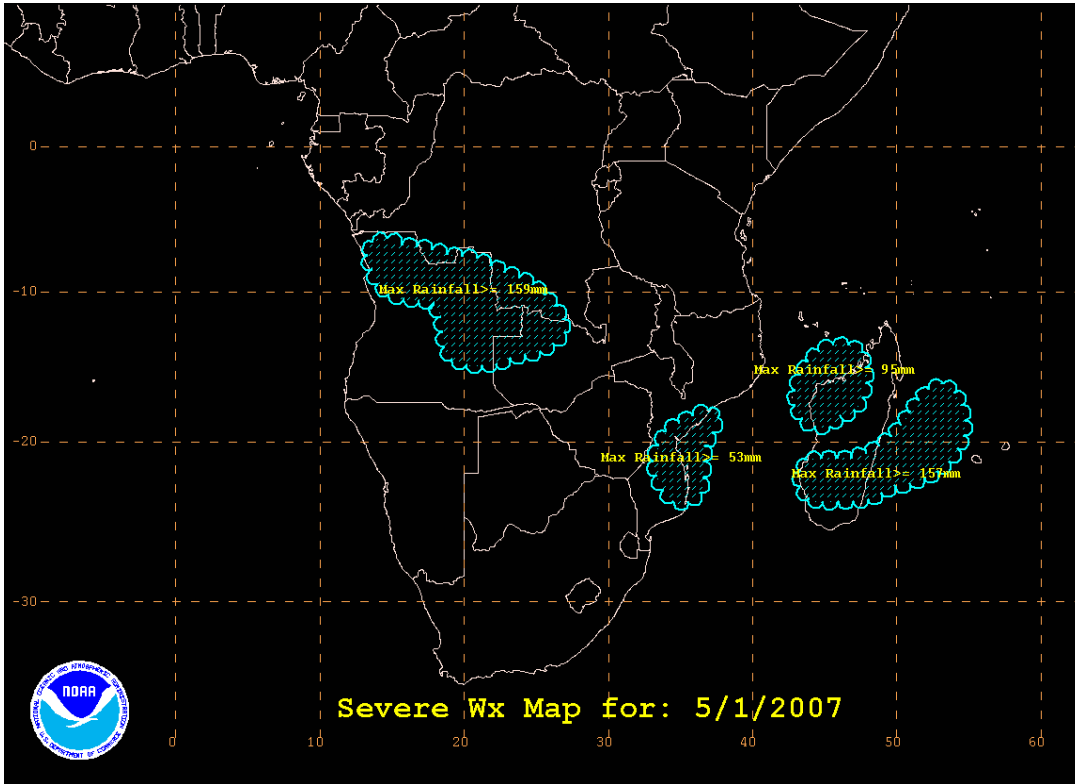
east with its centre at 26°S 40°E at the Mozambique channel and the trough in the Atlantic ocean with a southeast axis has shifted to the east approaching the western coast of South Africa.

At 850hpa the St Helena high pressure in the Atlantic ocean has its centre at 31°S 21°W and the Mascarine high pressure in the Indian ocean has its center at 31°S 69°E with a cutoff high south of Madagascar, between St Helena high and the Mascarine high is a trough from the south with a southeast axis associated with a front in the central part of South Africa, cyclonic circulation or low pressure areas can be seen over central Angola and Mozambique channel, otherwise there is a diffluent flow over south western Tanzania, Malawi and Zambia. AT + 48 Hrs the St Helena high pressure in the Atlantic ocean has moved to the east and its centre is at 30°S 19°W and the cutoff high of the Mascarine high pressure has joined the main Mascarine high in the Indian ocean and its is at center 33°S 61°E, between St Helena high and the Mascarine high is the trough from the south with a southeast axis associated with a front and in phase with the meridional arm of the ITCZ. The cyclonic circulation or low pressure areas can be seen over southeast of Angola in phase with other one at the Mozambique channel, otherwise the diffluent flow over south western Tanzania, Malawi and Zambia has been replaced by confluent flow over Zambia, southern Tanzania, Malawi and Mozambique. At T+72 Hrs the St Helena high pressure centre is at 31°S 15°W and the Mascarine high pressure center is at 33°S 61°E, between St Helena high and the Mascarine high is the trough from the south which has slightly moved to the east and it has a southeast axis associated with a front and it is in phase with the meridional arm of the ITCZ. The cyclonic circulation or low pressure areas have slightly moved to the west, one is at the northwestern coast of Angola and the other one at the Mozambique channel very close to the central coast of Mozambique, otherwise confluent flow is over Tanzania around lake Victoria basin, generally for the consecutive three days the 200hPa and 500 hPa shows anticyclonic circulation while at lower levels the general flow is cyclonic which means there is a vertical motion in the area.

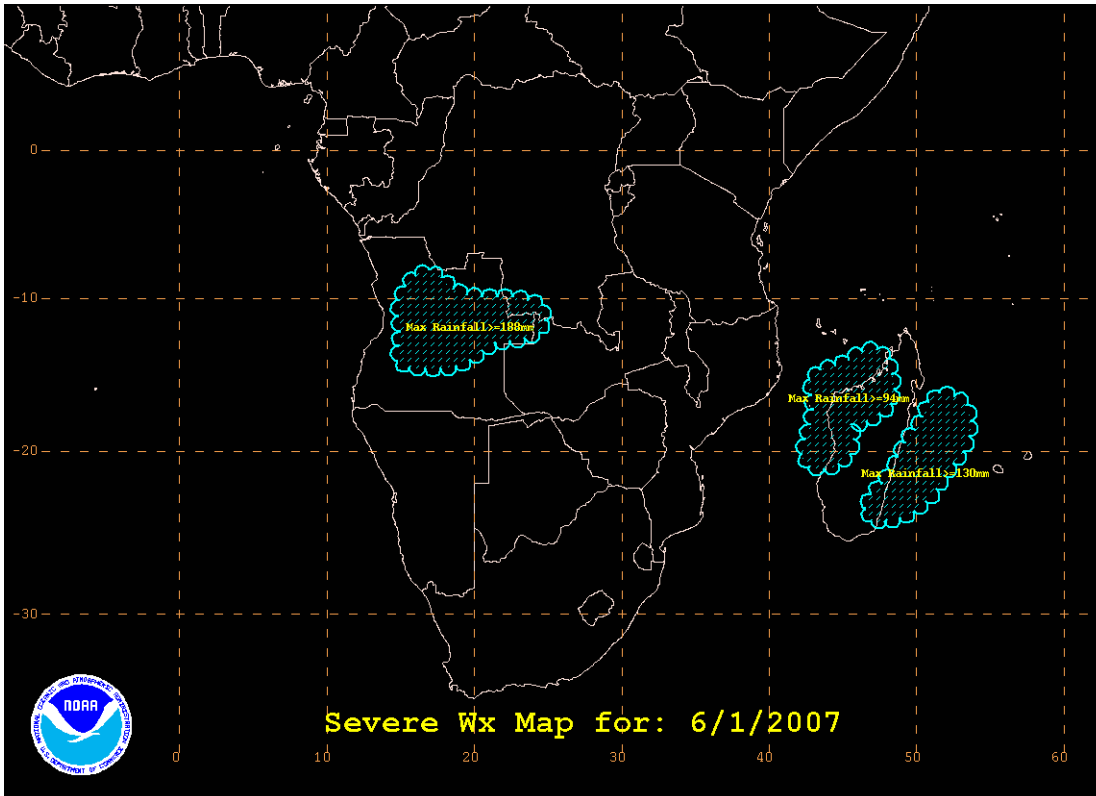
There is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

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FORECAST MAP FOR DAY1



FORECAST FOR DAY2



FORECAST FOR DAY 3

