



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 20TH December, 2006

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

**FORECAST DISCUSSION 14H00 EST 22nd, December, 2006
Valid 12:00Z 28th, December 2006 - 00z 30th December 2006**

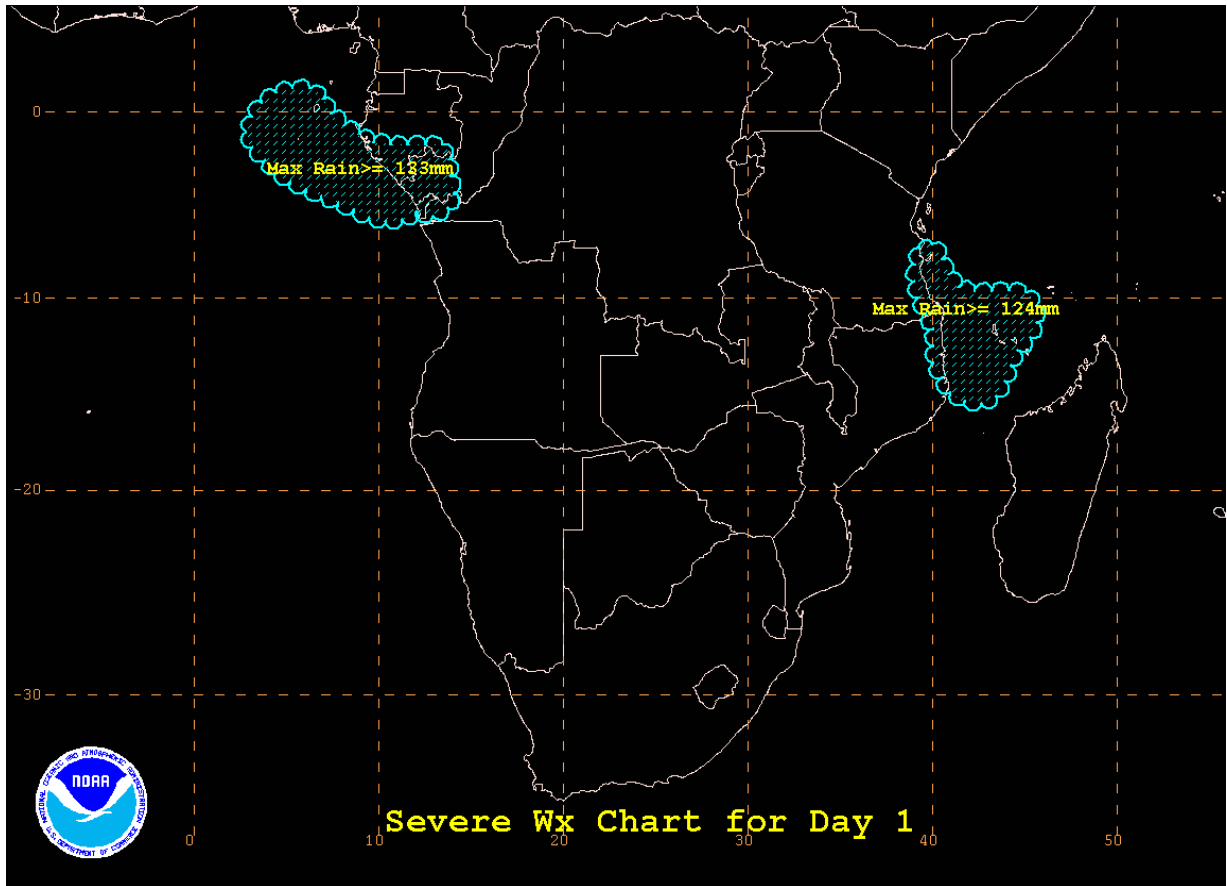
At T+24, the general pattern at 200hpa over the Southern Africa (South of the Equator) shows a strong anticyclone or high pressure system centered at about 22°S 30°E also at the Mozambique channel there is an anticyclone positioned at 17°S 43°E. The prevailing flow south of 23°S in the Atlantic ocean is north westerly become westerly in South Africa at a speed of 30 to 90knots. At T+ 48 Hrs the high pressure system has maintained its position and the anticyclone which was positioned at 17°S 43°E at the Mozambique channel has moved to the southwest at about 22°S 38°E. At T+72 Hrs the high pressure system centered is still maintaining its position, and the anticyclone which was at the Mozambique channel has moved to the west in Southern Mozambique. The flow south of 20°S is northwesterly in the Atlantic ocean at a speed of 30 to 125 knots. The trough axis south of South Africa is southeast. The ECMWF and the UK-Met models show similar pattern which resemble with the GFS model.

At 500hpa the Southern Africa (South of the Equator) shows that most areas are under the influence of low pressure and the flow over south of South Africa is westerly or zonal. The St Helena high pressure in the Atlantic ocean, can clearly be seen with its center at 23°S 07°W, the Mascarin high pressure in the Indian ocean, can be seen with its center at 23°S 54°E, and it has a cutoff high over the southern coast of Mozambique. T+48 the systems indicate that The St Helena high pressure in the Atlantic ocean, can clearly be seen with its center at 22°S 02°W, the Mascarin high pressure in the Indian ocean, can also clearly be seen with its center at 23°S 51°E, and it has a cutoff high over the Mozambique channel, the trough between St Helena high and the Mascarin high has a southerly axis and in phase with the meridional arm of the ITCZ also it has slightly moved to the east, this shows that there is an eastwards propagation of the systems. At T+72 there is a slight northeast shift of the system though St Helena high and the Mascarin high have maintained the position of their centers. The UK- Met and ECMWF models indicate similar situation.

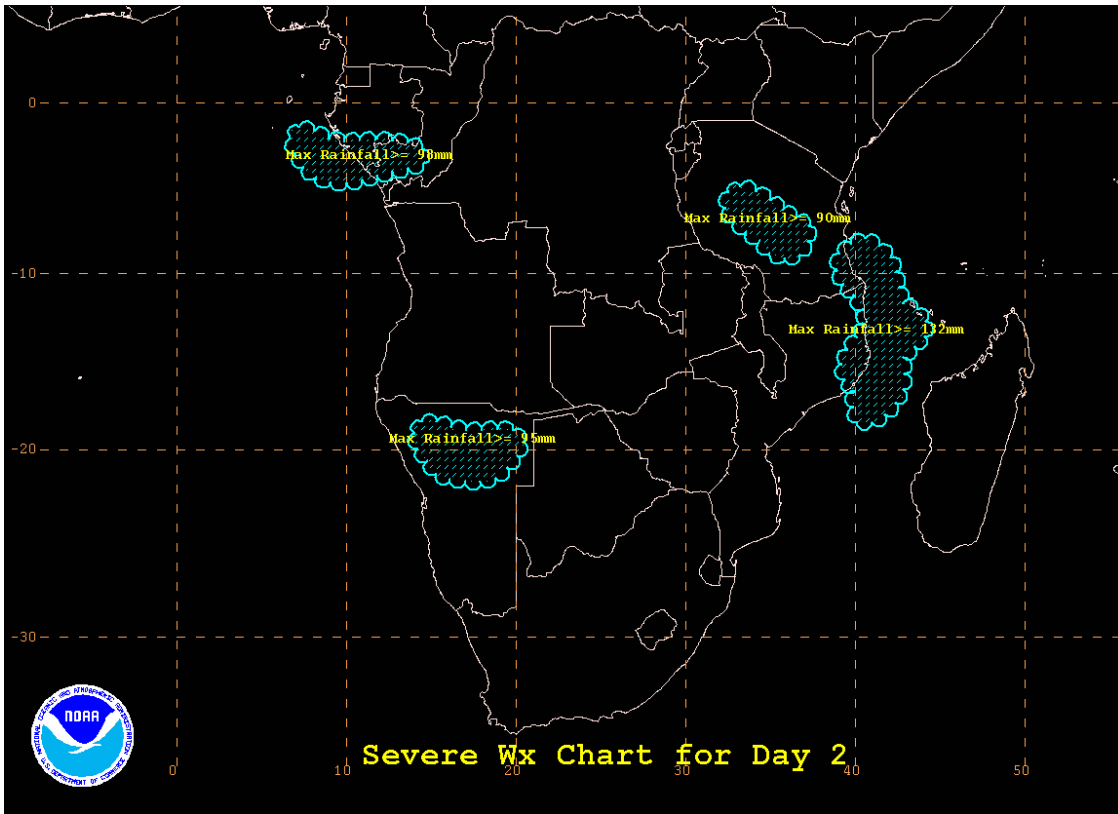
At 850hpa the St Helena high pressure in the Atlantic ocean has two centers one at 28°S 18°W and the other at 30°S 01°E in phase with the Mascarine high pressure in the Indian ocean, with its center at 32°S 67°E, between St Helena high and the Mascarine high is a trough from the south with southeast axis associated with a front and in phase with the meridional arm of the ITCZ, over northeast of Madagascar there is a cyclonic circulation implying another tropical cyclone otherwise we have the zonal part of the ITCZ existing over Tanzania, Zambia, Malawi, Mozambique and Zimbabwe. After 48 Hrs there are no much changes because the systems have slightly shifted to the east. At T+72 Hrs the St Helena high pressure in the Atlantic ocean has its centers at 28°S 05°W in phase with the Mascarine high pressure in the Indian ocean, with its center at 32°S 65°E, between St Helena high and the Mascarine high is a trough from the south with southwest axis associated with a front and in phase with the meridional arm of the ITCZ, the cyclonic circulation (tropical cyclone) over northeast of Madagascar has become deep with windspeed of about 45 knots and it has slightly moved to west.. GFS ensemble, suggests a chance of 24 hour cumulative rainfall between 70 and 140mm over the Indian Ocean north of Madagascar. 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

