



**Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)**

**SHORT RANGE FORECAST DISCUSSION 14H00 EST 20<sup>th</sup> March 2007**

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

**FORECAST DISCUSSION 14H00 EST 20<sup>th</sup> March 2007**

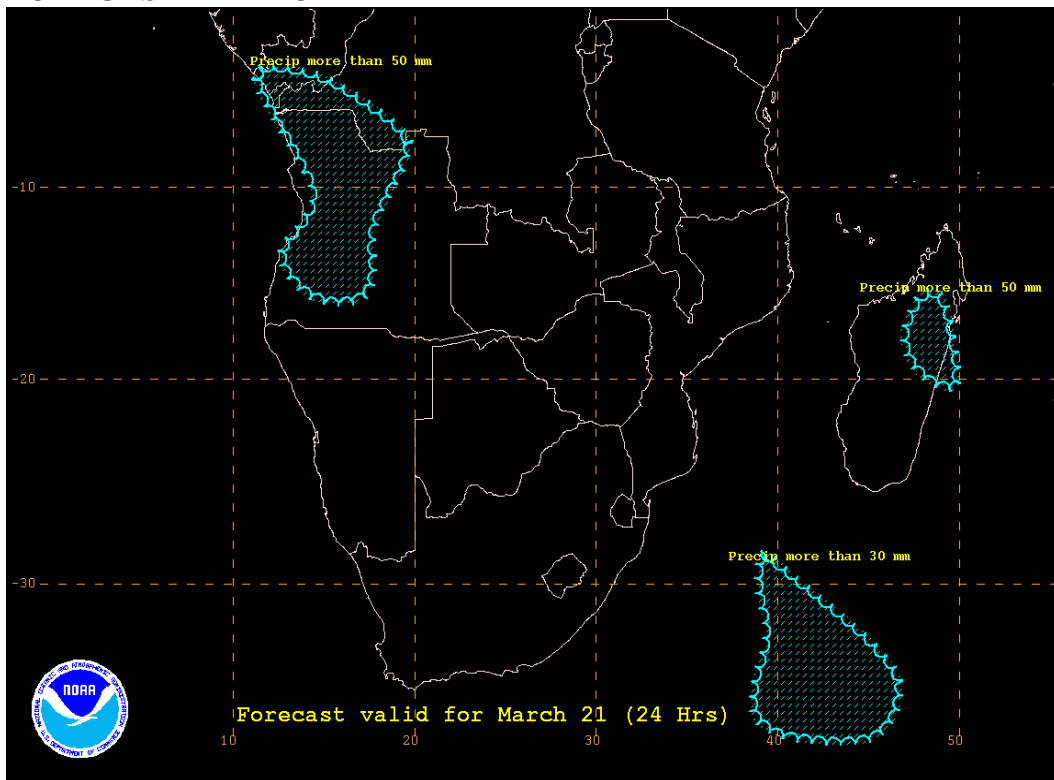
**Valid: 00Z 21<sup>st</sup> March 2007- 00Z 23<sup>rd</sup> March 2007.**

According to GFS, UK-MET and ECMWF models, the general flow pattern at 200mb over Southern Africa (South of the Equator) at T+24 hrs, is a high pressure system with two cells, one cell with center lying over Zambia (18°S 28°E) and the other one lying over Madagascar (19°S 46°E), causing divergence over most parts of the sub continent. There is a trough over the Atlantic Ocean (west of 10°E longitude), approaching the southwestern coast of the sub continent. Another trough is lying to the southeast of the sub continent, causing convergence over areas lying within the region 29°S, 43°S, 32°E and 42°E. At T+48 hrs, anticyclonic flow prevails over most parts of the sub continent, except over the southwestern South Africa which is under convergence due to a trough. The trough to the southeast of the sub continent has slightly shifted eastward to southern Madagascar. At T+72 hrs, there is no significant change in the general flow pattern, except that the trough which was over southern Madagascar has shifted to the east.

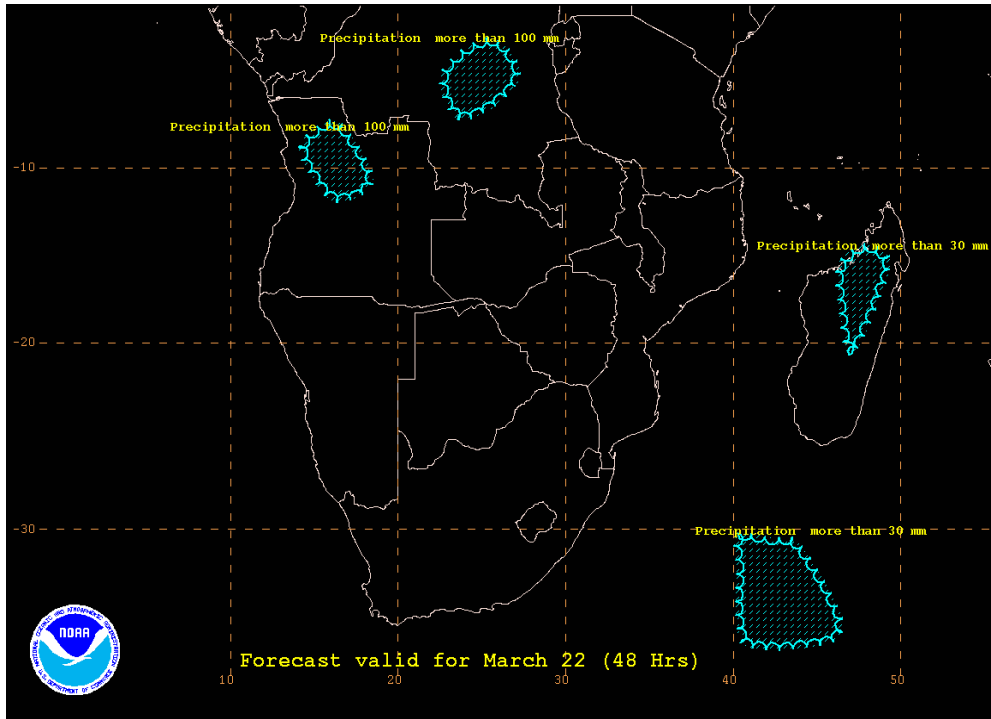
At 500mb, the Mascarene high has two cells. One of the cells is centered at 18°S 22°E, causing divergence over most of the sub continent and the other cell is centered at 15°S 49°E causing divergence over the northeastern parts of the sub continent. There is a trough to the southwest of the sub continent linked with a low centered at 36°S 37°E, causing convergence over areas which are to the east of 18°E longitude but south of 30°S latitude. At T+48 hrs, Divergence prevails over most of the sub continent, except over southwestern South Africa and Madagascar, where there is slight convergence. The cut-off low has gradually shifted southeastward. At T+72 hrs, the trough to the southwest of the sub continent has shifted eastward, causing convergence over the southwest parts of the subcontinent. Elsewhere divergence prevails. The 5700m and 5870m isolines of the 500mb heights of the GFS ensemble prediction system show high spread, especially T+24 hours.

At 850mb, there are lows over Namibia, Botswana, and over the coast of Angola, Namibia and South Africa, causing convergence over these areas. Convergence is also visible over D.R. Congo. There is another low to the southeast of the sub continent, centered at 36°S 38°E. This low is lying between the two cells of the Mascarene high, centered at 22°S 53°E and 46°S 53°E. The cell of the Mascarene high centered at 22°S 53°E is throwing a ridge over the eastern parts of the sub continent, hence divergence over these areas. The St Helena high has its center located at 35°S 10°W, and it is ridging into northwestern Namibia. At T+48 hrs, the low which was over the southwest coast of South Africa has shifted southeastwards. Convergence over South Africa, Namibia, and Botswana and over the coast of Angola is maintained. The rest areas of the sub continent are under the ridge of the Mascarene high. At T+72 hrs, the low over the coast of Angola has slightly filled up, and there is convergence over southern Angola, Namibia, Botswana and southwestern South Africa. Areas which are to the north of 11°S are under convergence due to a trough. Divergence prevails over the rest of the sub continent.

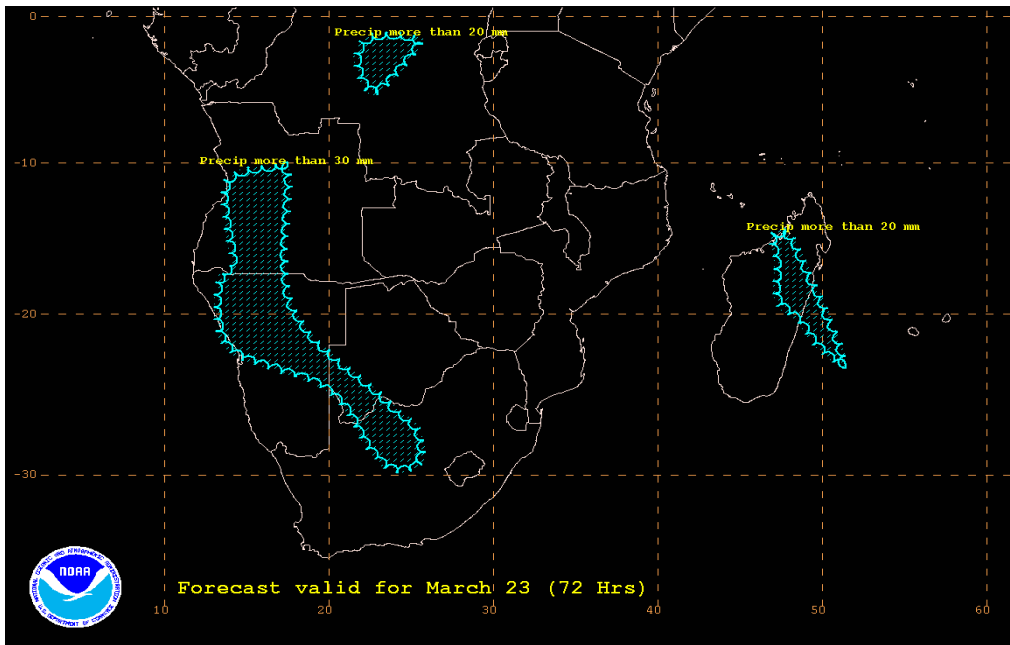
### FORECAST MAP FOR DAY 1



### FORECAST FOR DAY 2



### FORECAST MAP FOR DAY 3



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