Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 08th March 2007

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

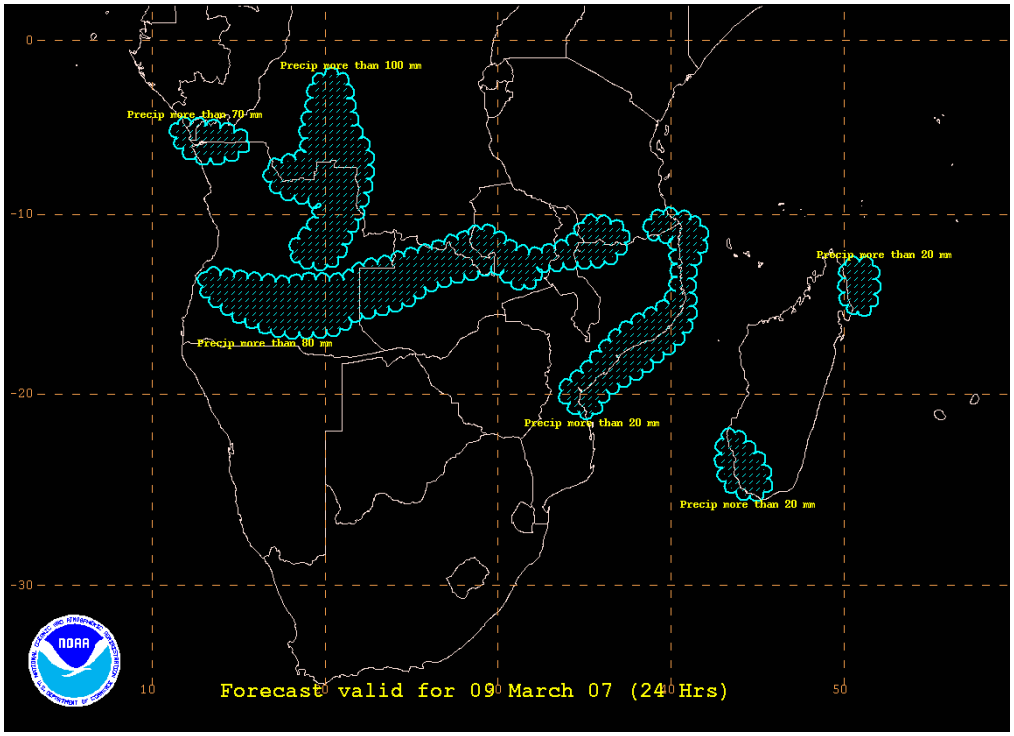
FORECAST DISCUSSION 14H00 EST 08th March 2007
Valid: 00Z 09th March 2007- 00Z 11th March 2007.

At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows some slight convergence over Madagascar caused by a trough lying over 42°E longitude. A high pressure system centered at 14°S 23°E is causing divergence over the rest of the sub continent. At T+48 hrs, the trough shifts to the west of 40°E longitude such that it causes convergence over the eastern parts of the sub continent. There is no significant change in the general flow pattern elsewhere. At T+72 hrs, the general flow pattern is similar to that at T+48 hrs, except that the trough has shifted slightly further westwards.
At 500hpa, the T+24 hrs model shows the St Helena high pressure system with two cells centered at 25°S 22°W and at 28°S 19°E, causing divergence over areas of the sub continent which are to the south of 12°S latitude. A trough lying over 45°E longitude is causing convergence over south of Madagascar. The Mascarene high has its center located at 31°S 70°E, and is ridging into eastern Madagascar. Areas of the sub continent which are to the north of 10°S latitude are under a trough, hence convergence. At T+48 hrs, the trough lying north of 10°S latitude has stretched into Mozambique. Anticyclonic flow prevails over the rest of the sub continent. At T+72 hrs, a trough lying over 10°E longitude is causing convergence over the extreme southwestern of South Africa. Over the rest of the sub continent, there is no significant change in the general flow pattern.

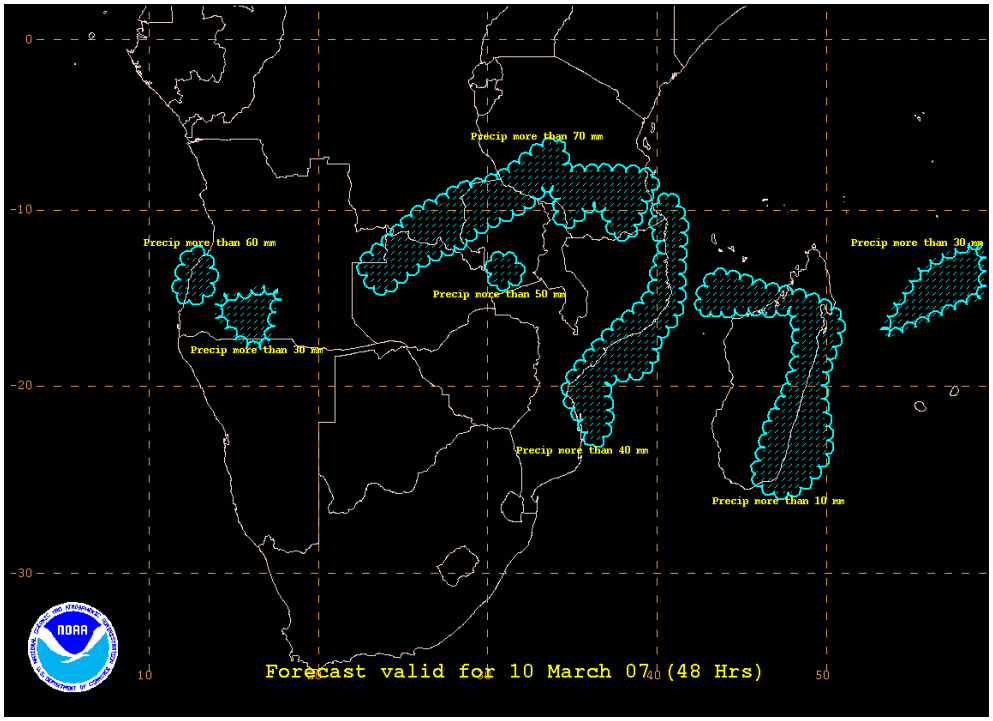
At 850hPa, the T+24 hrs prognostic chart shows the Mascarene high with a cell centered at 39°S 31°E, throwing a ridge into South Africa, southern Mozambique and southeastern Botswana, hence some moisture advection is expected into these areas. The Mascarene high has another cell centered at 34°S 68°E, which is ridging into southern Madagascar. The Mozambique Channel lies between the two cells of the Mascarene high pressure system. Areas of the sub continent which are to the north of 20°S latitude are under convergence due to a trough. Thunderstorms are likely over these areas. There is an area of convergence over Uganda associated with the influence of Lake Victoria, which modifies the weather of areas surrounding the lake. At T+48 hrs, the Mascarene high

shifts eastwards and is centered at 40°S 40°E, and its ridge is covering all areas of the sub continent which are to the south of 20°S latitude. The trough lying to the north of 20°S latitude is maintained. At T+72 hrs, the western coast of the sub continent is under a trough which is in line with the trough lying to the north of 18°S latitude. The Mascarene high has drifted eastwards such that it is centered at 40°S 46°E, and it has slackened its ridge over the sub continent.
Generally there is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

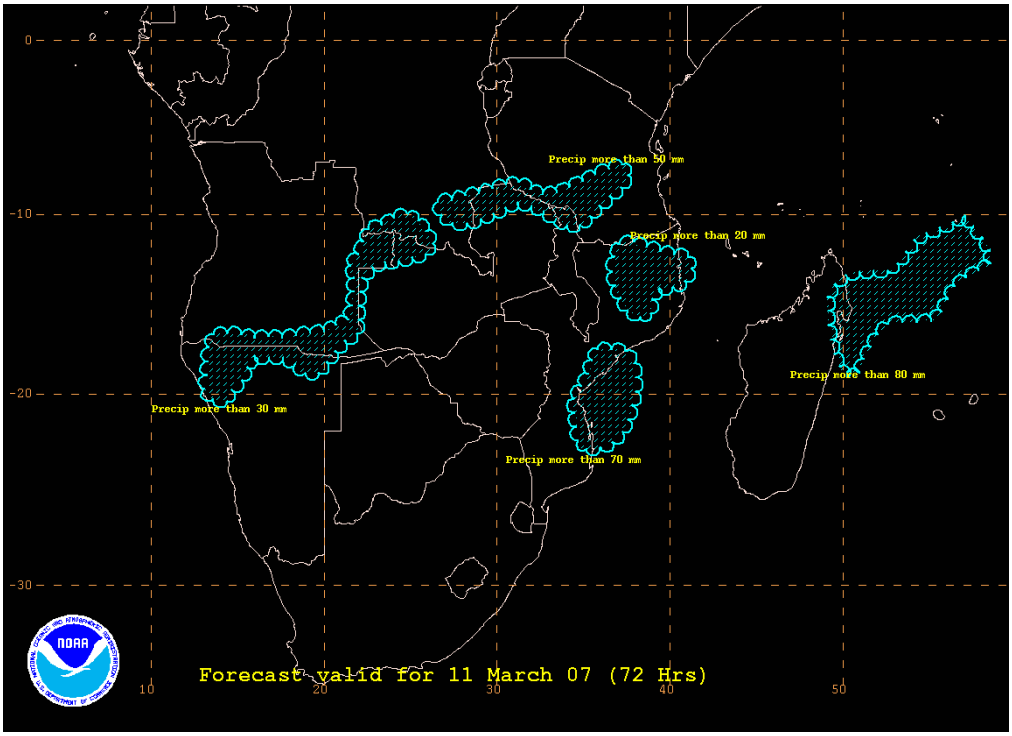
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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