Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 09th March 2007

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

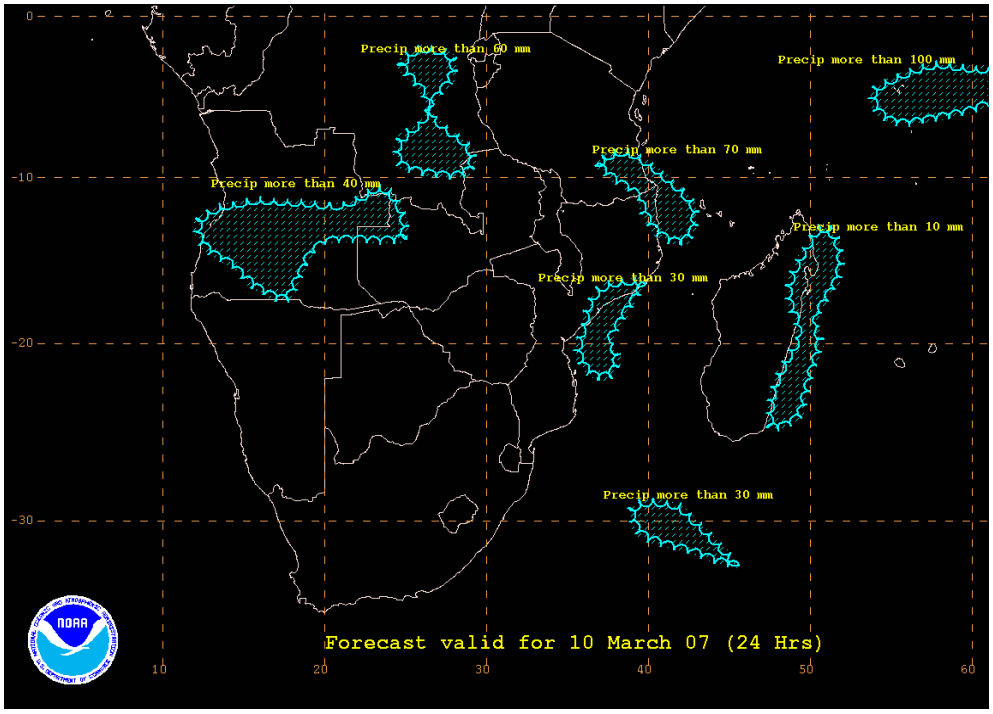
FORECAST DISCUSSION 14H00 EST 08th March 2007
Valid: 00Z 10th March 2007- 00Z 12th March 2007.

At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows that there is a trough causing convergence over areas of the sub continent which are east of 30°E longitude but south of 10°S latitude. A high pressure system with two cells centered at 19°S 16°E and at 40°S 33°E is causing divergence over the rest of the sub continent. At T+48 hrs, the trough is squeezed between two high pressure systems centered at 17°S 10°E and 20°S 64°E, hence divergence over most parts of the sub continent. Convergence induced by the trough is confined to areas of the sub continent which lie between longitudes 28°E and 35°E. Another trough with its northwest axis lying at 28°S 8°W and its southeast axis lying at 60°S 10°E is approaching the sub continent. At T+72 hrs, the trough over the Atlantic Ocean is causing convergence over the southwestern parts of the sub continent. There is no significant change in the general flow pattern over the rest of the sub continent, except that the trough over the interior has slightly shifted westwards.
At 500hpa, the Mascarene high has its center located at 30°S 54°E, and is ridging into Madagascar. The St Helena high pressure system has two cells centered at 26°S 14°E and at 39°S 38°E, and it is throwing a ridge over most parts of the sub continent. There is a low just to the west of Angola, over southern D.R. Congo and also over Mozambique and southern Tanzania. At T+48 hrs, the low over southern D.R. Congo has shifted westwards to the border between Angola and D.R. Congo. There is another low over southern Mozambique, whilst northern Mozambique is under the ridge extended from the Mascarene high. Anticyclonic flow prevails over the rest of the sub continent. At T+72 hrs, the trough over the border between Angola and D.R. Congo is maintained, and convergence over southern Mozambique is also maintained. A westerly trough is causing convergence over southwestern South Africa. Divergence prevails over the rest of the sub continent.

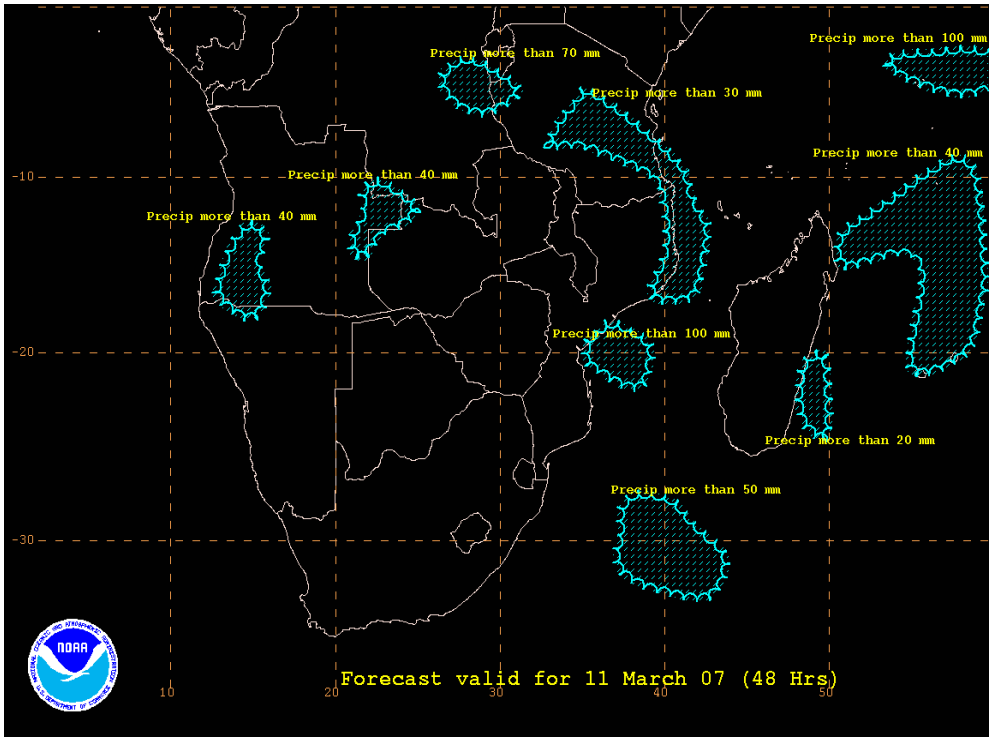
At 850hPa, the Mascarene high has its centre located at 40°S 39°E, and is throwing a ridge into all areas of the sub continent that are south of 15°S latitude. There is a low just

to the west of Angola. Areas of the sub continent which are north of 15°S latitude are under convergence due to a trough. At T+48 hrs, the Mascarene high shifts eastwards and is centered at 40°S 50°E, and it is extending a ridge into most areas of the sub continent which are south of 15°S latitude, except the extreme southwestern parts which are under a ridge of the St Helena high, which is centered at 29°S 20°W. The low to the west of Angola is maintained, and the trough lying north of 15°S latitude is also maintained. At T+72 hrs, the extreme western parts of the sub continent are under a ridge of the St Helena high. The Mascarene high has moved further eastwards such that it is centered at 40°S 60°E, and it has slackened its ridge over the sub continent, but the ridge is still strong over southern Madagascar. The wind flow over areas of the sub continent which are north of 15°S latitude is mainly southeasterly. Generally there is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

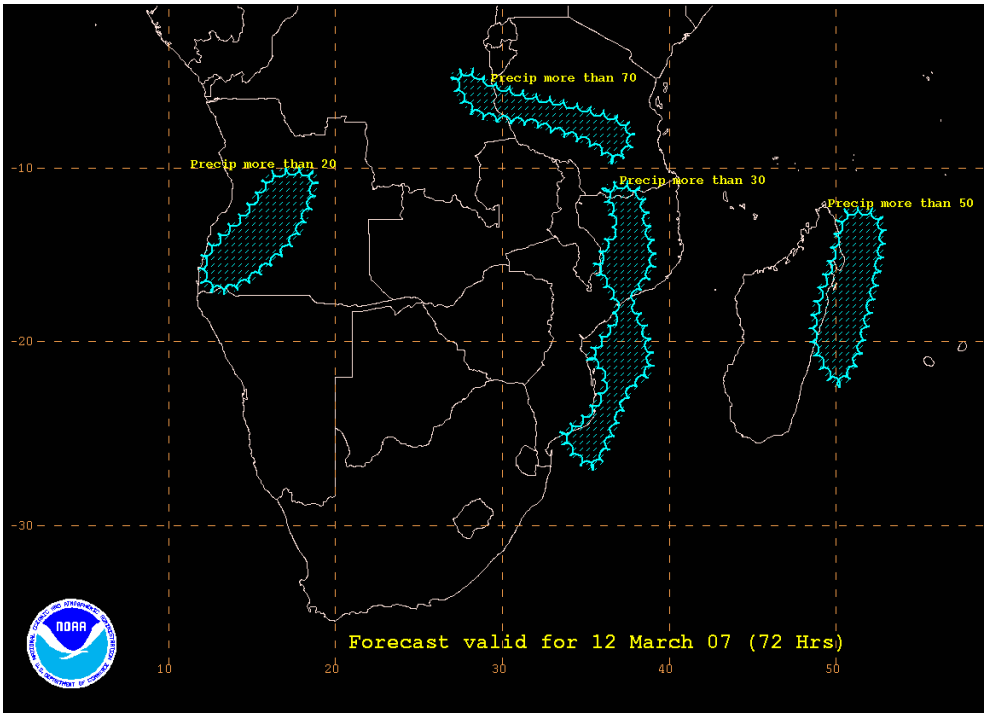
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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