Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 07th March 2007

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

FORECAST DISCUSSION 14H00 EST 07th March 2007
Valid: 00Z 08th March 2007- 00Z 10th March 2007.

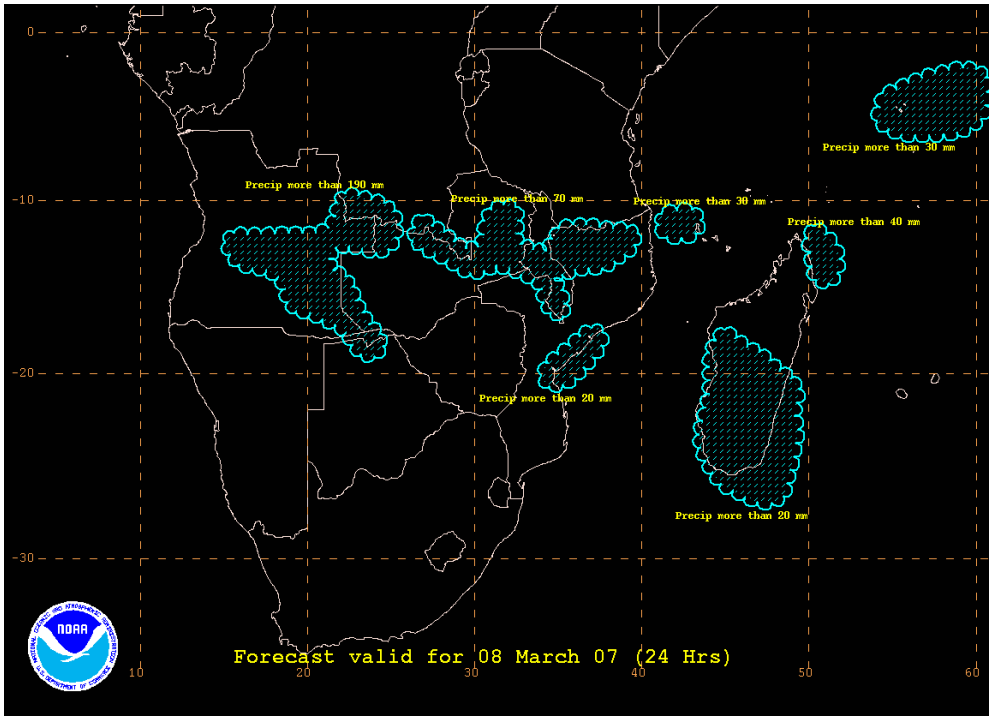
At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows that there is convergence over Madagascar due to a short wave trough. The extreme southeastern parts of South Africa are under a back hanging westerly trough with its northwest axis lying at 30°S 30°E and its southeast axis lying at 60°S 45°E. A high pressure system centered at 16°S 21°E is causing divergence over the rest of the sub continent. At T+48 hrs there is no significant change in the general flow pattern. At T+72 hrs the top part of the westerly trough has not moved significantly, and has developed a closed circulation at 31°S 33°E. This maintains convergence over the southeastern parts of the sub continent, including Madagascar where there is a persistent short wave trough. There is no significant change in the general flow pattern over the rest of the sub continent.

At 500hpa, the T+24 hrs model shows the St Helena high pressure system with two cells, with one cell centered at 27°S 21°W and another cell centered at 26°S 21°E, ridging into areas of the sub continent which are to the south of 18°S latitude. A trough lying over 45°E longitude is causing convergence over Mozambique Channel. The Mascarene high has its center located at 31°S 63°E, and is ridging into areas which are to the southeast of Madagascar. Areas of the sub continent which are to the north of 18°S latitude are under a trough, hence convergence. At T+48 hrs, there is no significant change in the general flow pattern. At T+72 hrs, a trough is lying over the extreme eastern parts of the sub continent. Anticyclonic flow prevails over the rest of the sub continent.

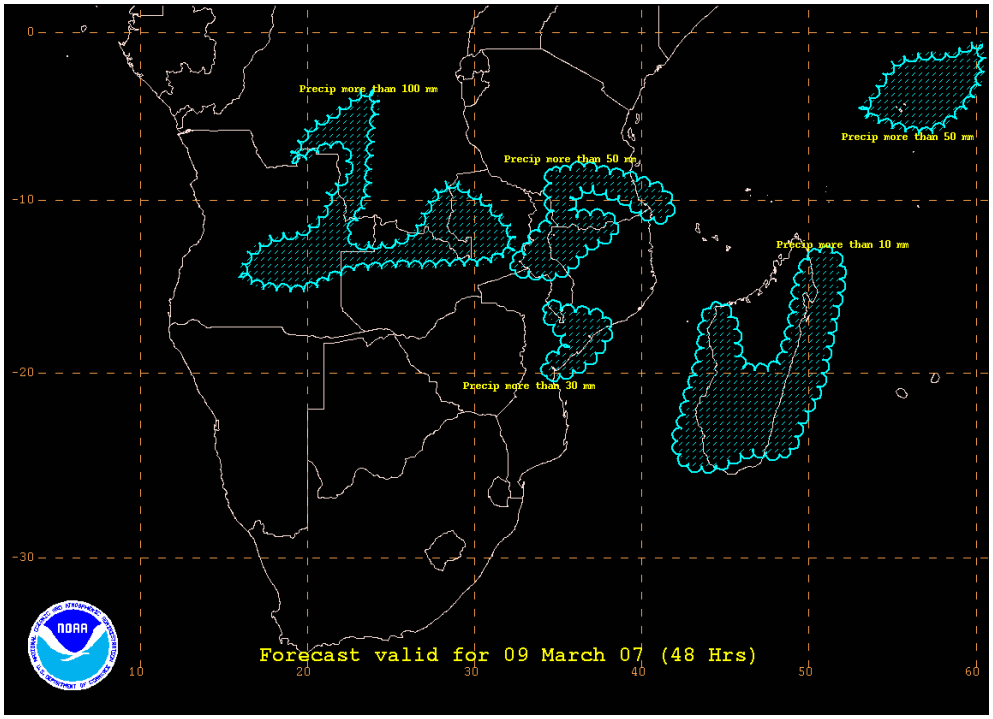
At 850hPa, the T+24 hrs prognostic chart shows the St Helena high with two cells located at 30°S 25°W and at 37°S 8°E, and is ridging into parts of the sub continent which are to the south of 15°S latitude. The Mascarene high is centered at 35°S 70°E, and is ridging into Madagascar. A westerly trough lying over 45°E longitude is causing convergence over the channel. Areas of the sub continent which are to the north of 15°S latitude are under convergence due to another trough lying over those areas. There is an area of convergence over D.R. Congo/Uganda associated with the influence of Lake Victoria, which modifies the weather of areas surrounding the lake. At T+48 hrs, areas of

the sub continent which are to the north of 18°S latitude are under a trough, whilst the rest are under a ridge. At T+72 hrs, the western coast of the sub continent is under a trough which is in line with the trough lying over areas of the sub continent which are to the north of 18°S latitude. Elsewhere the general flow pattern has not changed significantly.
The patterns of the UK- Met, ECMWF and GFS models are in agreement.

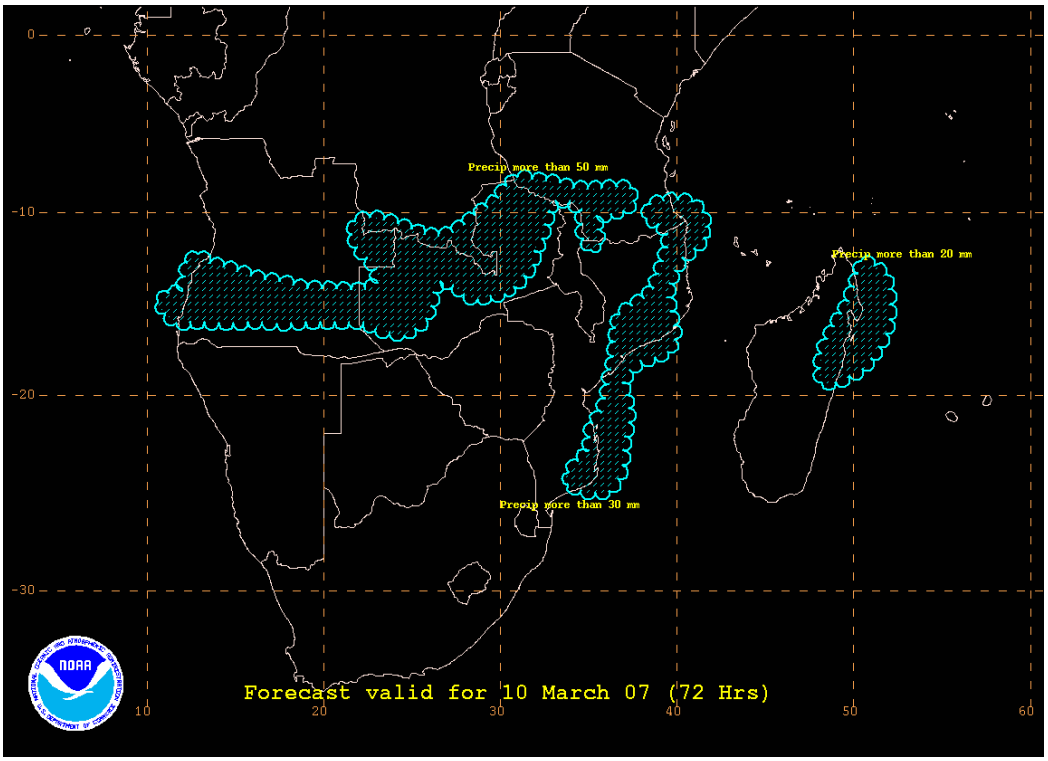
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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