



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 23rd March 2007

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

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Valid: 00Z 24th March 2007- 00Z 26th March 2007.

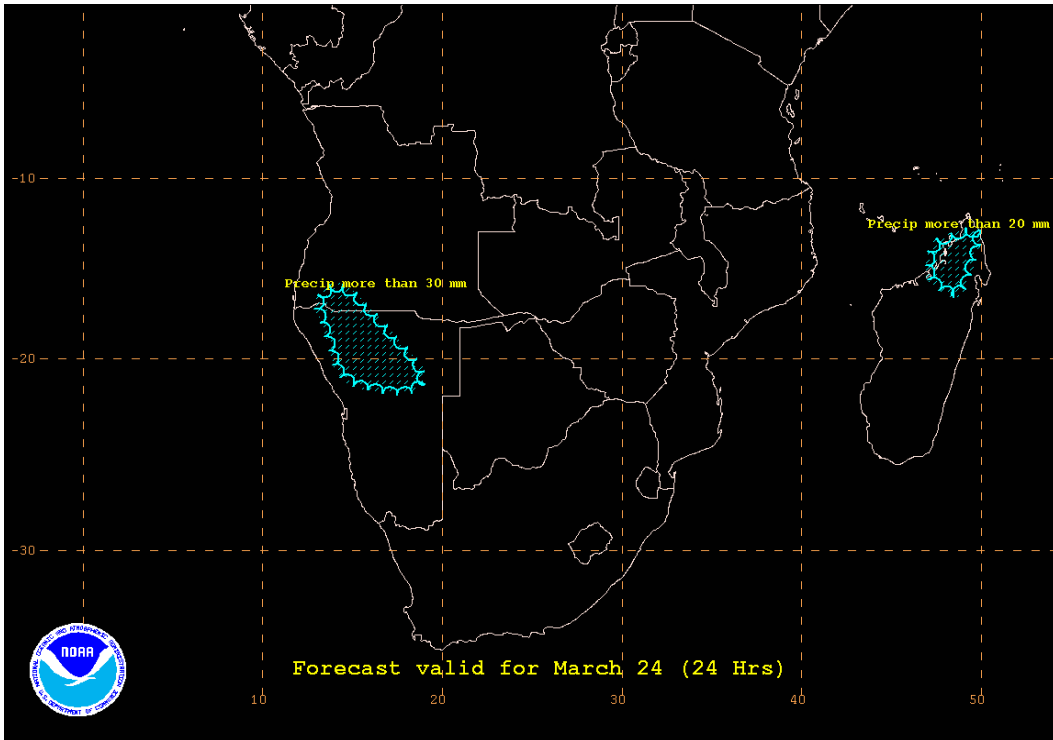
At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) depicted by GFS, ECMWF and UK-MET models, is a high pressure system with the center lying over central coast of Mozambique (21°S 35°E), causing divergence over most parts of the sub continent. There is a trough over the southwestern coast of the sub continent, causing convergence over these areas. Area of convergence can also be seen over Kenya and northern Tanzania. At T+48 hrs, divergence over the sub continent is maintained, except over southern part of the sub continent where there is a slight convergence. Areas which are to the north of 9°S latitude are under convergence due to a trough. At T+72 hrs, there is a low to the east of the coast of Tanzania (8°S 49°E), causing convergence over these areas. The trough which was over the southwestern part of the sub continent has shifted southeastward, causing convergence over southern South Africa. Convergence over areas which are to the north of 9°S latitude prevails. Divergence is maintained over the rest of the sub continent.

At 500mb, the Mascarene high has its center lying over Zimbabwe/Mozambique border (21°S 32°E), causing divergence over most parts of the sub continent. There is a trough over the southern coast of South Africa, causing convergence over these areas. At T+48 hrs, the trough over southern coast of South Africa has shifted to the southeast of the sub continent, causing convergence to the areas which are to the east of 26°E longitude but south of 29°S latitude. There is another trough over the Atlantic Ocean approaching the southwestern coast of the sub continent. Divergence prevails over the rest of the sub continent, At T+72 hrs, there is no significant change in the general flow pattern, except that the trough to the southeast of the sub continent has weakened. There is a trough over southwestern coast of the sub continent causing convergence over these areas. The 5700m and 5870m height contours of the 500mb heights of the GFS ensemble prediction system, at T+24 hours, show a huge spread over northeastern Madagascar,

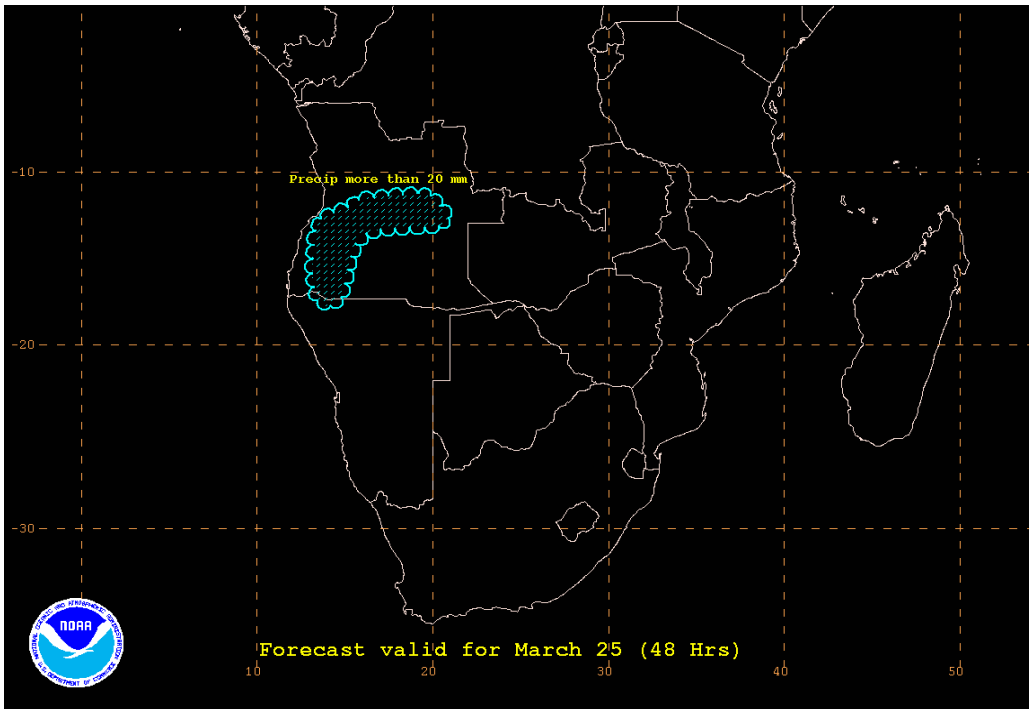
Tanzania, D.R. Congo and the coast of Namibia denoting uncertainty on the location of trough over these areas, the spread getting worse through to T+72 hours.

At 850mb, the GFS model shows the Mascarene high with two cells centered at 24°S 39°E and at 23°S 59°E, throwing a ridge over most parts of the sub continent, hence divergence. The exception is over the northwest to the central parts of South Africa which are under convergence due to a shallow trough, southern Namibia which is under a low (27°S 18°E), and central Madagascar which is under a shallow trough. The UKMET is in agreement with GFS, but also show a shallow trough over northern Botswana. ECMWF agrees with UKMET that there is a shallow trough over northern Botswana, but it also shows a shallow trough to the southeast of the sub continent, a feature which is not picked by the GFS and the UKMET. At T+48 hrs, the GFS and the ECMWF maintains the low over southern Namibia, but the UKMET puts the low over southern Namibia/South Africa border. Only the ECMWF shows a shallow low over central Angola. The GFS and the ECMWF show a trough over extreme southern Madagascar. Otherwise the Mascarene high ridge is maintained over most parts of the sub continent. At T+72 hrs, the ECMWF and the GFS show a trough over southern Namibia stretching into southwestern Botswana and also into western South Africa, and another trough over southern Angola. The UKMET does not show the trough over southern Angola. All the models show northerly winds of up-to 30KT over southeastern South Africa. The three models are in agreement that divergence prevails over most parts of the sub continent due to the persistence of the ridge of the Mascarene high. The St Helena high, which has been to the far west of the sub continent, extends its ridge to the extreme northwestern parts of sub continent.

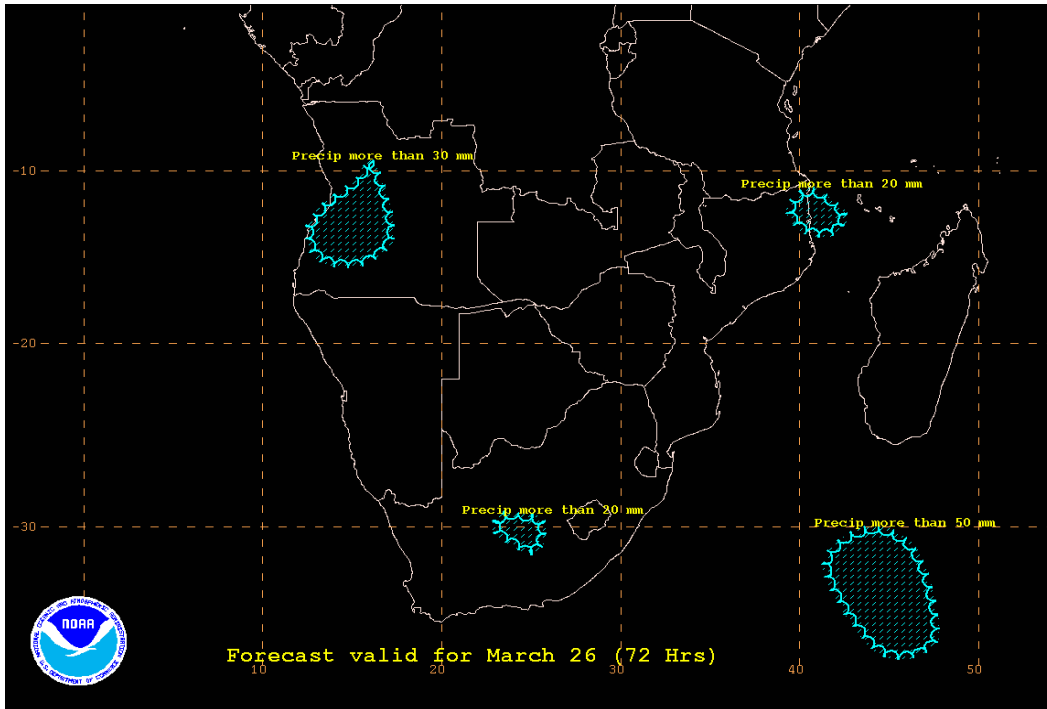
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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