



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 30th April 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 01st May 2007- 00Z 3rd May 2007.

At T+24 hrs, the general flow pattern at 200 mb over Southern Africa (South of the Equator) shown by the GFS, ECMWF and UK-MET models is a shallow trough with a closed circulation lying above the southwestern Madagascar, linked to a shallow above southeastern Angola, causing converge over these areas. Another shallow trough is lying to the northeast of the coast of Madagascar with a closed circulation near 14°S 52°E. A high pressure system cell lying over Tanzania/Kenya border (2°S 38°E) is causing divergence over the rest of the sub continent. At T+48 hrs, the shallow trough which was above the southwestern Madagascar, has shifted eastward, linking the trough to the northeast of the coast of Madagascar. There is a shallow trough above eastern Zimbabwe, stretching into southeastern D.R. Congo. Another shallow trough is lying above western South Africa. Divergence is maintained over the rest of the sub continent. At T+72 hrs, the shallow trough which was above eastern Zimbabwe has weakened and the shallow trough which was above western South Africa has shifted to the northeast, causing convergence over southern Mozambique. There is a shallow trough to the north of Madagascar developing a closed circulation near 5°S 49°E. The three models show that the trough, which was to the southeast of the southern coast of Madagascar, has shifted further eastward, weakening in amplitude. The rest of the sub continent is under divergence.

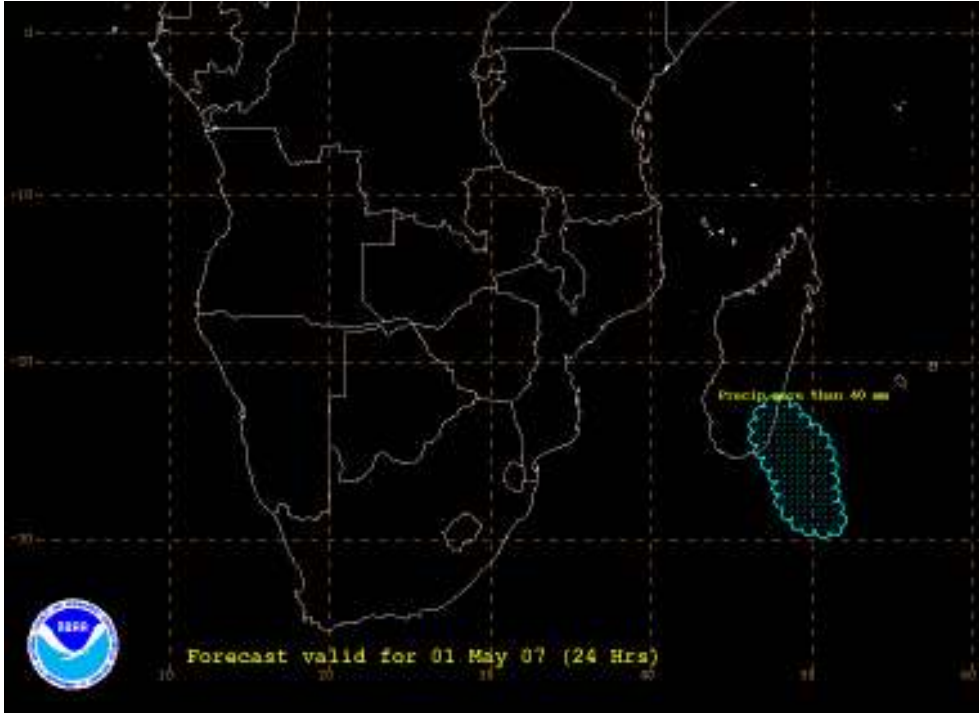
At 500mb, the GFS models show an upper level trough lying above eastern Madagascar, associated with a cut-off low over southern Madagascar (22°S 44°E), causing convergence over these areas. Slight convergence can be seen to the east of the northern coast of Madagascar, over southeastern Kenya and northern Zambia. The three models show that the St Helene high centered at 18°S 8°E is throwing a ridge over the most of the sub continent. The Mascarene high with two cells centered at 9°S 55°E and at 27°S 62°E is hardly ridging the northeastern coast of the sub continent. At T+48 hrs, there is

no significant change in the general flow pattern, except that the upper level trough has shifted eastward. There is a shallow trough above western South Africa, hence convergence over these areas. At T+72 hrs, the trough which was above the western parts of South Africa, has shifted to the northeast. Convergence can be seen over central Zambia, northeastern Zimbabwe, and central Mozambican Channel and to the east of Madagascar, due to shallow troughs. The rest of the sub continent is under divergence of the St Helene and Mascarene highs. The ensemble members of the GFS show a huge spread of the 5700m and 5870m height contours over eastern and central Zambia, to the eastern coast of Madagascar and eastern Zimbabwe up to T+72, which implies uncertainty in the position and also in amplitude of the shallow troughs over these areas.

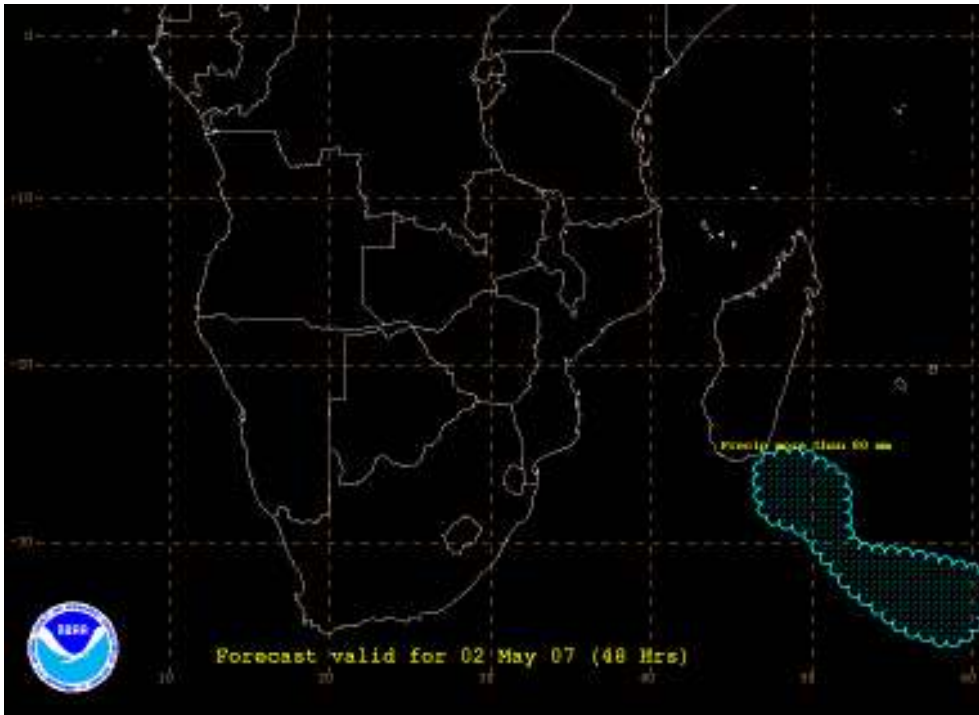
At 850mb, there is a trough lying over western Madagascar, causing convergence over these areas. A southeasterly trough is lying to the northeast of the northern coast of Madagascar with a closed circulation near 10°S 57°E. Convergence is also seen over northeastern D.R. Congo and over the central coast of Namibia. The St Helene high with two cells centered at 29°S 8°W and at 30°S 29°E is ridging the most of the sub continent. The Mascarene high is centered at 30°S 69°E, throwing a ridge into eastern coast of Madagascar. At T+48 hrs, there is no significant change in the general flow pattern, except that the trough which was lying over western Madagascar, has weakened, but convergence over these areas is maintained. A bud-off high lying to the southeastern coast of South Africa (32°S 35°E) is causing onshore flow along the northeastern coast of Mozambique and western Tanzania. Convergence over the coast of Namibia is maintained. There is a shallow trough to the extreme southwestern parts of South Africa, causing convergence over these areas. At T+72 hrs, the trough which was over the southwestern parts of South Africa, has shifted eastward, causing convergence over southern South Africa. Convergence over central coast of Namibia and southern Madagascar is maintained. The rest of the sub continent is under divergence of the St Helene and Mascarene highs.

There is a huge spread between the ensemble products of the 50 mm isolines of 6 hourly total precipitations over southern and to the southeast of Madagascar, western Gabon and to the east of the coast of Tanzania up to T+72 hrs, denoting uncertainty in the intensity and location of precipitation over these areas.

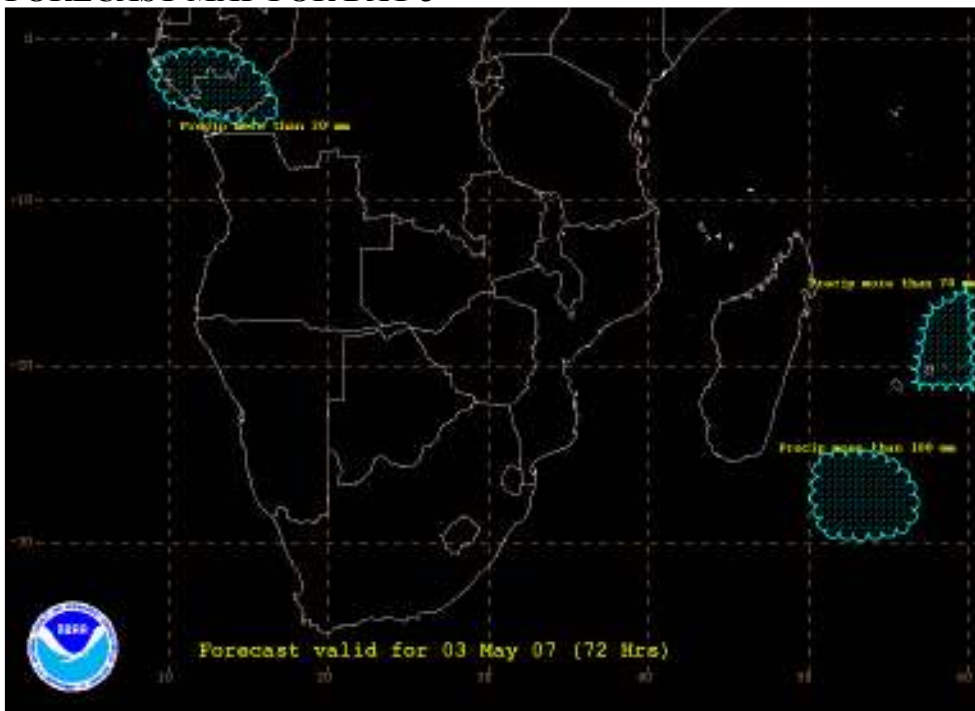
FORECAST MAP FOR DAY 1



FORECAST MAP FOR DAY 2



FORECAST MAP FOR DAY 3



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