



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 1st JUNE 2007

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

FORECAST DISCUSSION 14H00 EST 1st June 2007

Valid: 00Z 02nd June 2007- 00Z 04th June 2007.

FLOW AT 200MB

At T+24 hrs, the general flow pattern over Southern Africa (South of the Equator) shown by the GFS, ECMWF and UK-MET models indicates a well pronounced trough above the southeastern parts of the sub continent associated with a upper wave and southwest-northwesterly stream up to 100 kt, stretching into Zambia, causing convergence over these areas. Two high pressure system cells, centered to the west of the coast of Angola (10°S 1°E) and over the Indian Ocean (9°S 70°E), are causing divergence over the rest of the sub continent.

At T+48 hrs, the trough associated to a upper wave which was above the southeastern parts of the sub continent has slightly shifted eastward. Anticyclonic flow prevails over the rest of the sub continent.

At T+72 hrs, the trough which was to southeastern coast of the sub continent has shifted to southern Madagascar. There is a trough lying over the Atlantic Ocean, approaching the southwestern coast of the sub continent. The high pressure cell which was to the west of the coast of Angola has shifted eastward, causing subsidence over the sub continent.

FLOW AT 500MB

At T+24 hrs, the GFS and UK MET models show a upper level trough over Botswana with its southwest axis lying at 30°S 20°E and its northwest axis lying at 11°S 19°E, associated with a cut-off low near 30°S 19°E, causing convergence over these areas. Area of convergence is also seen to the south of Madagascar, due to a trough. A sub tropical high is lying to the southeast of the southern coast of South Africa (40°S 38°E). The Mascarene high cell centered at 11°S 48°E is ridging the eastern parts of the sub continent. The St Helene high pressure cell is centered at 9°S 9°E ridging the rest 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 northeastward weakening in amplitude and the associated

cut-off low has also shifted northeastward (into northwestern South Africa), causing convergence over northeastern South Africa, southwestern Mozambique, over Zimbabwe and central Zambia. The ECMWF puts the cut-off over southeastern Mozambique. At T+72 hrs, the upper level trough which was above northeastern South Africa has shifted into central Mozambique and the associated cut-off low as also shifted northeastward, to the southeastern coast of Mozambique, merging with the main stream. Convergence to the south of the coast of Madagascar is maintained. Slight convergence can be seen over northwestern Angola, due to a low. There is a trough above the Atlantic Ocean, approaching the southwestern coast of the sub continent. The rest of the sub continent is under divergence.

FLOW AT 850MB

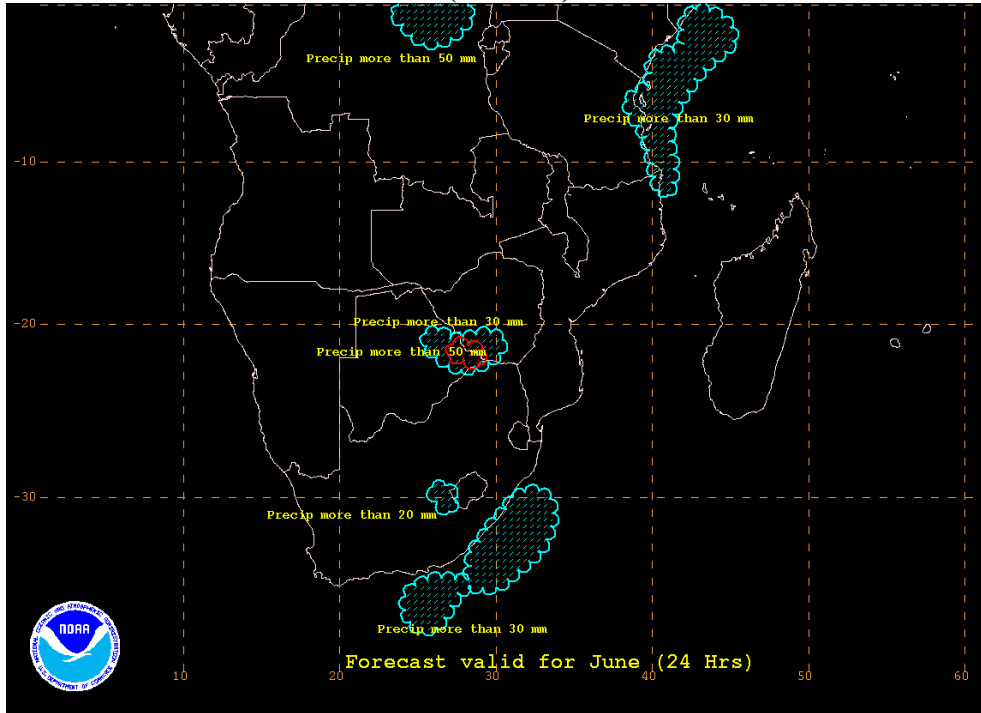
At T+24 hrs, the sub tropical high pressure cell centered at 40°S 40°E, is dominating the weather over the most of the sub continent, hence subsidence but causing onshore flow along the eastern coast. There is a deep low to the northwest of the coast of Namibia, causing convergence over these areas. Areas of convergence can also be seen over central Angola, central D.R. Congo and to the northeastern coast of Kenya.

At T+48 hrs, deep low which was lying to the northwest of the coast of Namibia has filled up. There is a trough with a closed circulation near 33°S 10°E, approaching the southwestern coast of the sub continent. Divergence prevails over the rest of the sub continent.

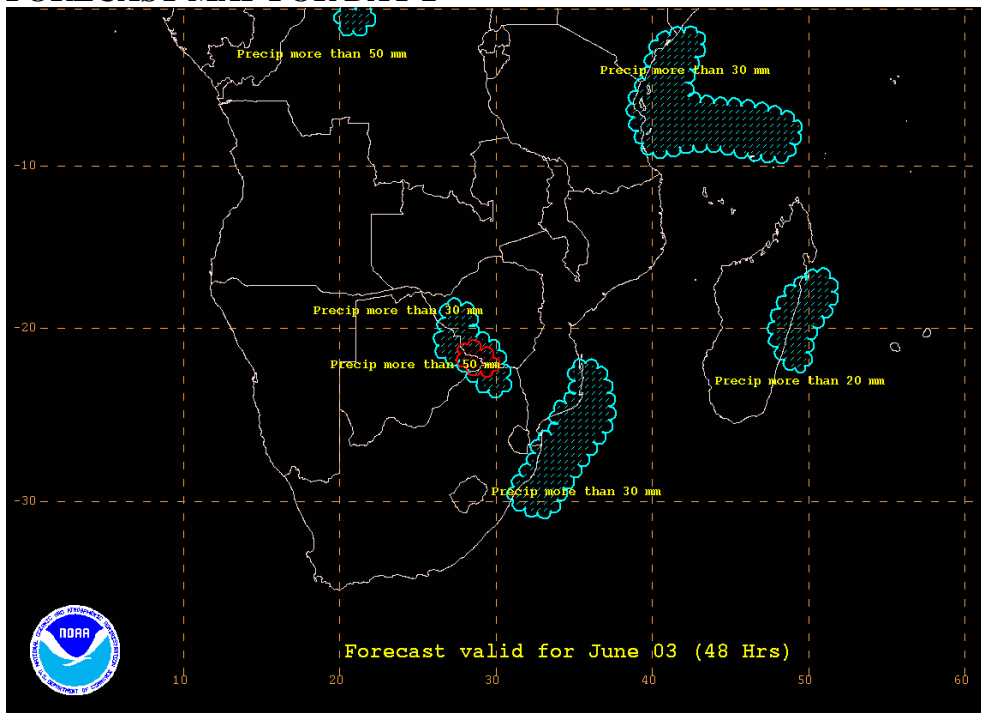
At T+72 hrs, the trough which was over the Atlantic Ocean, with a closed circulation, has shifted eastward causing convergence over the southwestern coast of the sub continent. Convergence over central D.R. Congo and to the coast of Kenya prevails. The rest of the sub continent is under subsidence.

There is a reasonable spread within the mean in the ensemble products of the 50 mm isolines of 6 hourly total precipitations over Gabon, over the coast of Tanzania and Kenya, over central D.R. Congo and also to the southeastern coast of Mozambique up to T+54 hrs, which implies that the mean precipitation expected over these areas is near 50 mm. But there is a huge spread over the southern coast of Mozambique and over Botswana / Zimbabwe border which implies uncertainty in the intensity of precipitation over these areas.

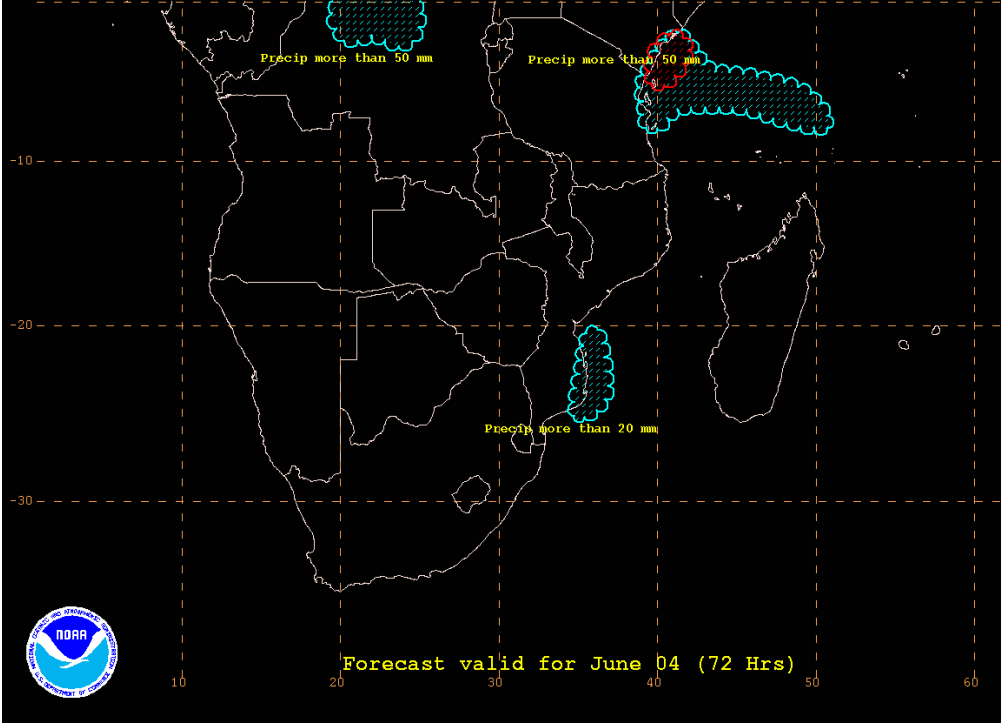
FORECAST MAP FOR DAY 1 (June 02)



FORECAST MAP FOR DAY 2



FORECAST MAP FOR DAY 3



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