



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 22nd 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 23rd March 2007- 00Z 25th March 2007.

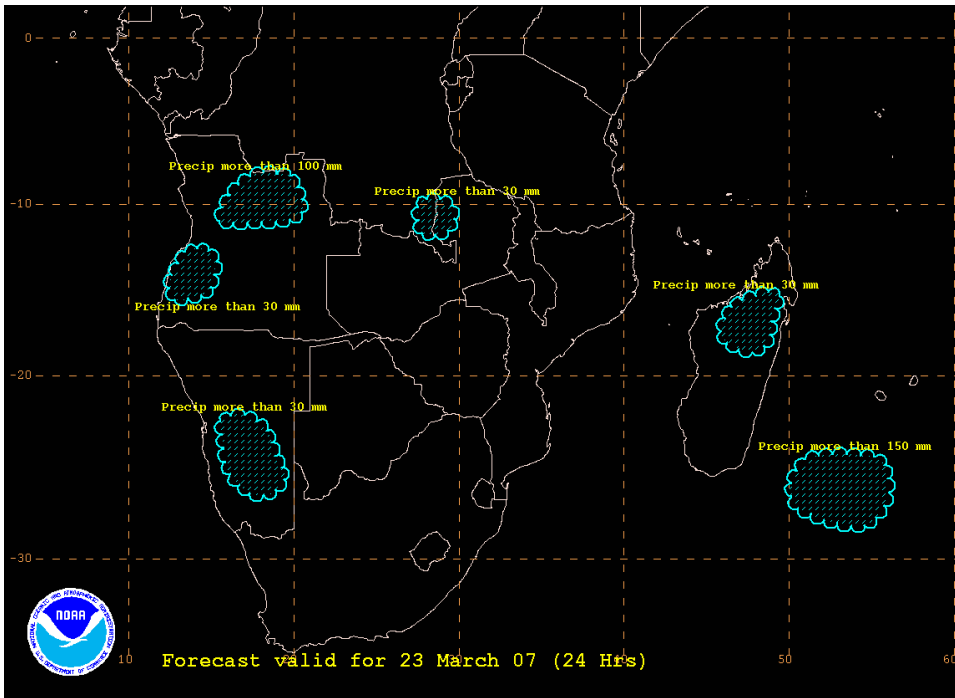
At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) depicted by GFS and UK-MET models, is a high pressure system with the center lying over central Mozambique (19°S 32°E), causing divergence over most parts of the sub continent. There is a trough over the Atlantic Ocean (west of 10°E longitude), approaching the southwestern coast of the sub continent. Another trough is lying to the southeast of Madagascar, causing convergence over the Reunion islands. At T+48 hrs, anticyclonic flow prevails over most parts of the sub continent, except the southwestern part which is under convergence due to a trough. The trough to the southeast of Madagascar has slightly shifted further east. Areas which are to the north of 5°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 (4°S 45°E), causing convergence over these areas. The trough which was over the southwestern part of the sub continent has weakened. Divergence is maintained over the rest of the sub continent. The ECMWF model at T+48 hours shows the high pressure system centered over the coast of Mozambique (20°S 36°E). At T+72 hours the ECMWF model shows a low over central portion of Tanzania (5°S 34°E),

At 500mb, the Mascarene high has its center lying over Zimbabwe at 21°S 29°E, causing divergence over most parts of the sub continent. There is a trough to the southwestern coast of the sub continent, causing convergence over the southwestern parts of the sub continent. At T+48 hrs, the Mascarene high has shifted southeastward and the trough to the southwestern coast of the sub continent has weakened. Divergence prevails over the rest of the sub continent, except over southern part of South Africa where there is a slight convergence. At T+72 hrs, there is no significant change in the general flow pattern. 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 northern Mozambique,

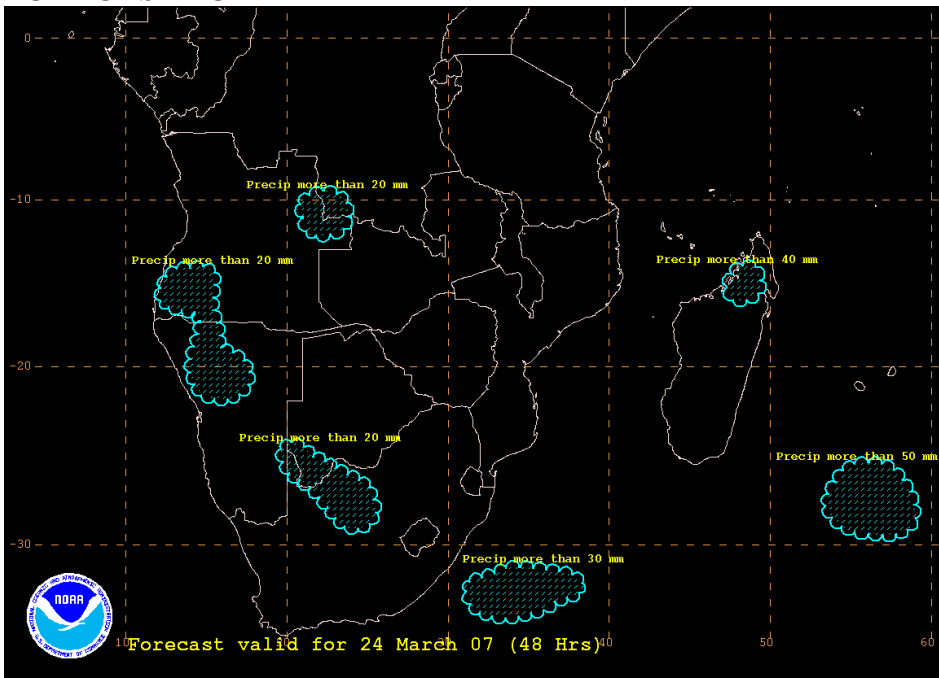
Mozambique Channel, Madagascar and over areas of the sub continent which are to the north of 12°S latitude, the spread getting worse through to T+72 hours.

At 850mb, the GFS model shows that the main feature over the sub continent is the ridge of the Mascarene high, which has its centre located at (25°S 42°E). Due to this ridge, divergence prevails over most parts of the sub continent. Convergence is only over central Botswana where there is a low (23°S 14°E) and over the southern part of South Africa where there is a trough. At T+48 hrs, there is a low over the coast of Namibia (25°S 15°E). Otherwise divergence prevails elsewhere due to the persistence of mainly the Mascarene ridge. At T+72 hrs, the low which was over the coast of Namibia has shifted southwards to South Africa/Namibia border (30°S 17°E), and another low has developed over central Angola (12°S 17°E). Apart from these areas where there are lows, divergence is still predominant over the sub continent. The UKMET model, at T+24 hours shows a trough over southwestern Botswana, and a shallow trough over Malawi/Mozambique border, hence convergence over these areas. Divergence prevails elsewhere due to the Mascarene ridge. At T+48 hours, the UKMET shows a trough over the coast of Angola, another trough over Botswana along the 20°S latitude, and a ridge elsewhere. At T+72 hours, this model shows a trough over South Africa/Namibia border, and a ridge over the rest of the sub continent. The ECMWF model at T+24 hours shows a trough over southeastern Namibia stretching into southwestern Botswana, another trough over Namibia/Angola border, and the Mascarene ridge over the rest of the sub continent. At T+48 hours this model shows convergence over central Botswana and to the southeastern parts of the sub continent, and a ridge elsewhere. At T+72 hours the ECMWF model shows a low over southern Namibia (27°S 18°E), a trough over South Africa in areas which are south of 30°S latitude. Apart from the few troughs discussed, the models are in agreement in the sense that they generally show a ridge over most parts of the sub continent.

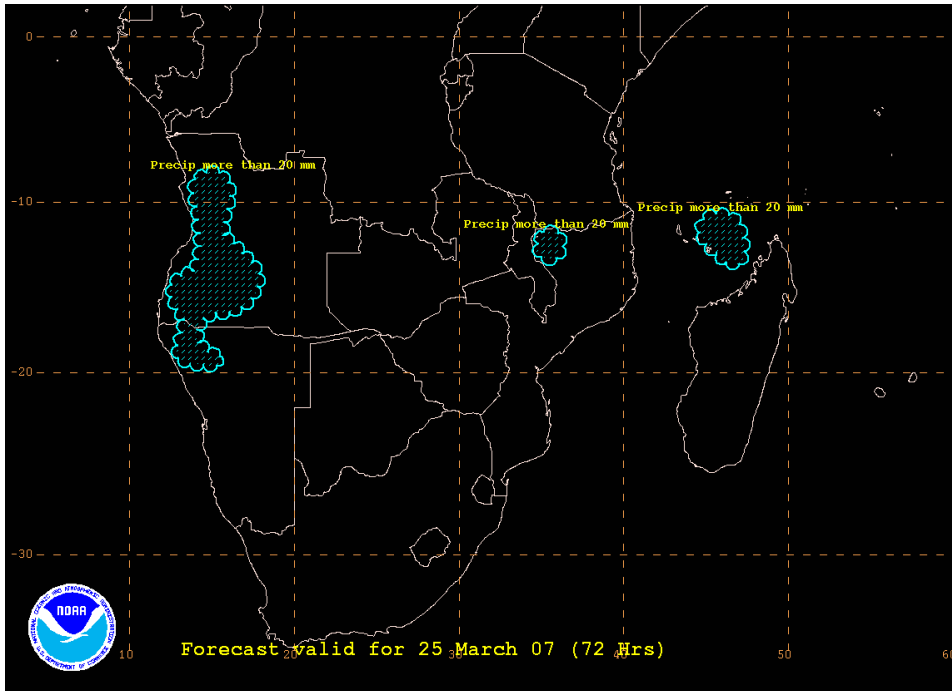
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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