



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 08th February, 2007

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

FORECAST DISCUSSION 14H00 EST 08th, February, 2007

Valid: 00Z 09th, February, 2007- 00Z 11th, February 2007.

At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) indicates a sharp upper air trough making its way to the SW part of S.A. in association with a cold front at the surface. A high pressure system is centered at about 16°S 31°E and short wave trough is passing over the southern part of the Mozambique Channel. At T+48 hrs the trough moves over the western interior of the S.A. accompanied by a jet-stream of about 130kt northwesterly winds which signify strong winds at the surface as the frontal low passes close to the south coast of S.A. Strong divergence can be expected over the SW part of S.A. with some divergence expected over southern Madagascar with the passage of another elongated short wave trough. At T+72 the trough is expected to deepen quite a lot along the south coast of SA as the jet-stream of about 120KT moves over the SE part thus strong winds at the surface expected to spread to these SE parts. The trough which was over southern Mozambique Channel earlier is expected to intensify and its southeastern axis passes over the southern part of Madagascar thus enhanced divergence is expected over the central and eastern parts of Madagascar. The high pressure system is expected to shift northwards and will be at about 15°S 23°E

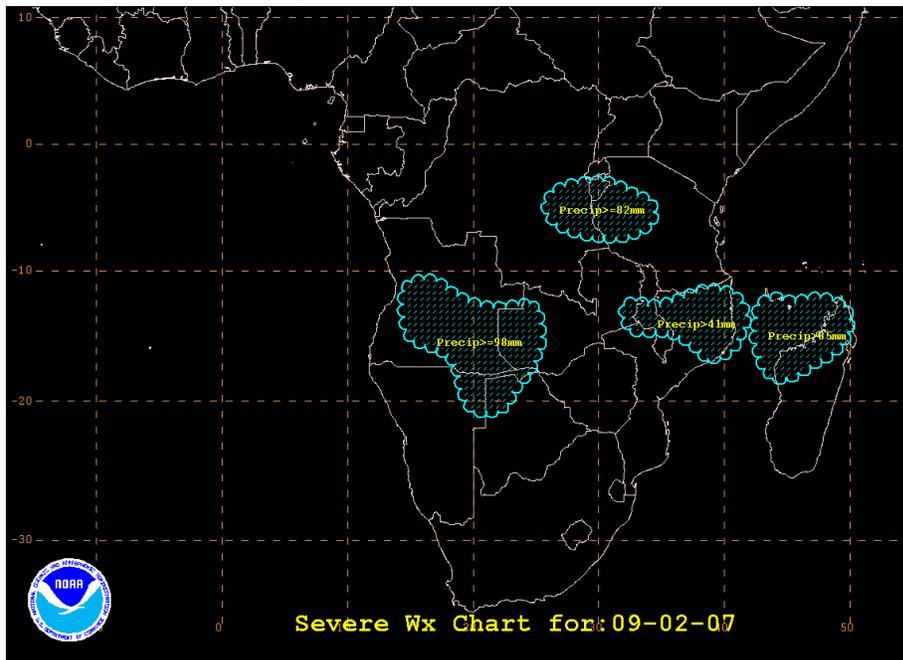
At 500hpa, the Mascarene high is to the southeast of Madagascar with its center located at 43°S 51°E, so it does not have any significant influence over the sub continent. The extreme northwestern parts of the sub continent are under convergence caused by a back hanging westerly trough with its northwest axis lying at 26°S 6°W and its southeast axis lying at 60°S 28°E. Northern Angola is under convergence due to a low centered at 12°S 19°E, and Madagascar also, which is under a trough. The St Helena high has split into two cells centered at 17°S 9°E and at 24°S 21°E, causing divergence over the rest of the sub continent. At T+48 hrs the only significant change is that the back hanging westerly trough has drifted eastwards. At T+72 hrs the back hanging westerly has significantly shifted eastwards such that it is causing convergence over South Africa, southern

Botswana and southern Mozambique. Over the rest of the sub continent the general flow pattern is similar to that at T+48 hrs.

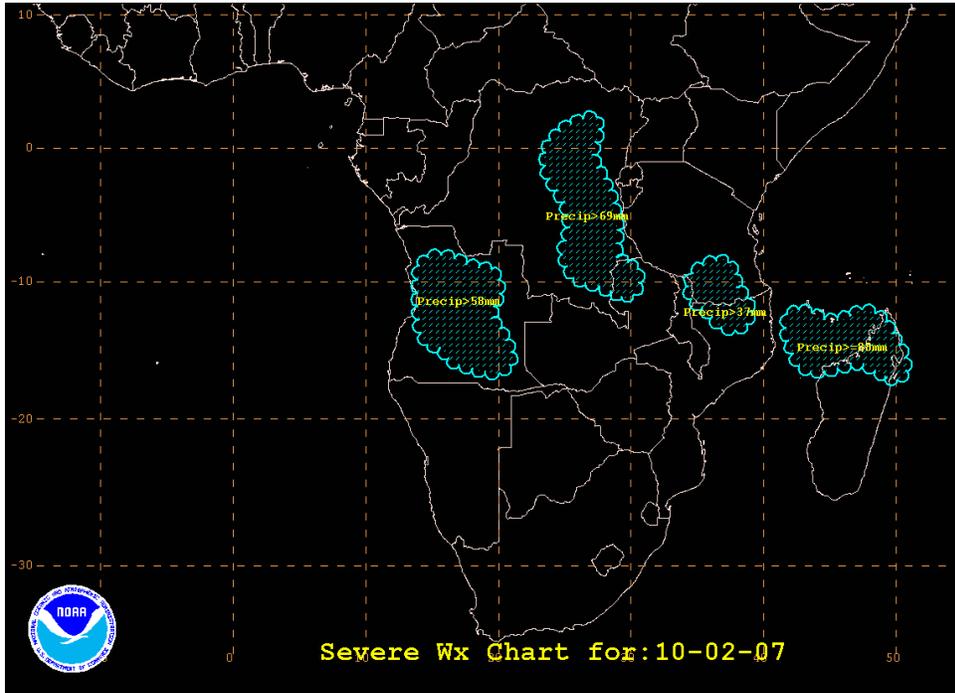
At 850hPa, the T + 24 Hrs chart shows the St Helena high with its centre located at 33°S 10°W, and it is ridging into the extreme southwestern parts of the sub continent. The Meridional arm of the ITCZ is lying to the north of the sub continent. Area of convergence can be seen over Uganda due to the influence of Lake Victoria which modifies the weather of areas surrounding the lake. The Mascarene high has split into two cells with cell centered 44°S 52°E ridging into the extreme southeastern parts of the sub continent including southern Madagascar, while the cell lying at 5°S 70°E is ridging into the extreme northeastern parts. A trough is causing convergence over South Africa stretching into Angola, and further stretching into northern Madagascar. This trough has a series of lows with centers over South Africa, southern Angola and to the southeast of Madagascar. This trough is in line with a back hanging westerly trough which is to the south of the sub continent, with its northwest axis lying 34°S 10°E and its southeast axis lying at 60°S 29°E. At T + 48 Hrs and at T+72 hrs, the general flow pattern is maintained, implying that convergence prevails over most parts of the sub continent during the forecast period.

The UK- Met and ECMWF models are generally in agreement with the GFS in terms of the positions of the systems.

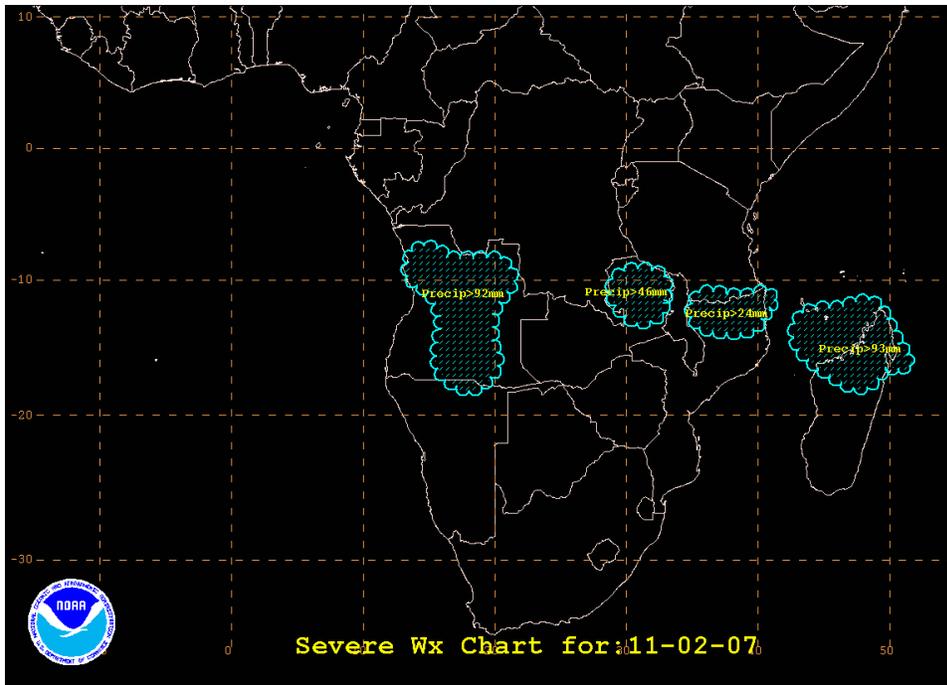
FORECAST MAP FOR DAY1



FORECAST MAP FOR DAY2



FORECAST FOR DAY 3



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