**Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)**

**SHORT RANGE FORECAST DISCUSSION 14H00 EST16 th, January, 2007**

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

**FORECAST DISCUSSION 14H00 EST 16th, January, 2007**
**Valid 12:00Z 17th, January, 2007- 00z 19th, January 2007**

At T+24, the general pattern at 200hpa over the Southern Africa (South of the Equator) shows a strong anticyclone or high pressure system which has been divided into cells, with centers at 15°S 40°E and 26°S16°W. Between the two high pressure cells is a trough lying over the western coast of Namibia and South Africa. At T+ 48 Hrs the centre of high pressure cell which is over the interior has shifted to 17°S 33°E while the centre of the high pressure cell which is over the Atlantic ocean has shifted to 30°S 9°E, forcing the trough to lie over southwest of Namibia, southwest of Botswana with its axis stretching into southeast of South Africa. At T+72 Hrs the centre of the high pressure cell over the interior has moved to 18°S 32°E, and the centre of the high pressure cell over the Atlantic ocean has shifted to 21°S 29°W, and the trough is lying over Botswana stretching into southeast of South Africa.

At 500hpa a high pressure system is centered at about 16S 28E and a trough is moving over the western parts of S.A. & southern Namibia. Another weak trough can be seen exiting S.A. in the northeast which will cause precipitation over southern Madagascar. At T+48 a high pressure system from the west causes the trough to slide southeastwards affecting the southern part of S.A. with another trough over southern Mozambique stretching northwards to northern Angola. This trough is expected to continue drawing tropical moisture from the tropics which should cause a continuation of thunderstorm activity in a band moving from northern Angola southwards to central Mozambique. At T+72 a high pressure system west of S.A replaces the trough over the western interior with a trough moving over the NE part and extends up to central Angola. This will cause tropical storms to continue particularly over Mozambique where heavier falls are expected for most part of this week. A low develops over the central part of the Mozambique Channel and will be responsible for much of the rainfall over Madagascar where significant rains are also expected this week.

The UK-MET and ECMWF models handle the situation similar and no major discrepancies between these models and GFS.

At 850hPa the St Helena high pressure in the Atlantic ocean has its centre at 25°S 5°W and the Mascarine high pressure in the Indian ocean has its center is at 32°S 70°E. Between the St Helena high and the Mascarine high is a trough from the south, which is covering most parts of the sub continent. This implies that the general pattern over the sub continent is cyclonic flow. At T + 48 Hrs the St Helena high pressure cell has its centre at 25°S 18°E while the centre of the Mascarine high has shifted to 30°S 70°E and developed a bud-off high with its centre at 37°S 37°E, and is ridging into the eastern parts of the sub continent. A trough is confined to the southwestern parts of the sub continent. At T+72 Hrs the centre of the St Helena high has shifted to 32°S 8°W, while the position of the Mascarine high pressure system is maintained, but its but-off high has been replaced by trough from the south, lying over the western half of South Africa, most parts of Botswana, Namibia and Angola.
There is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

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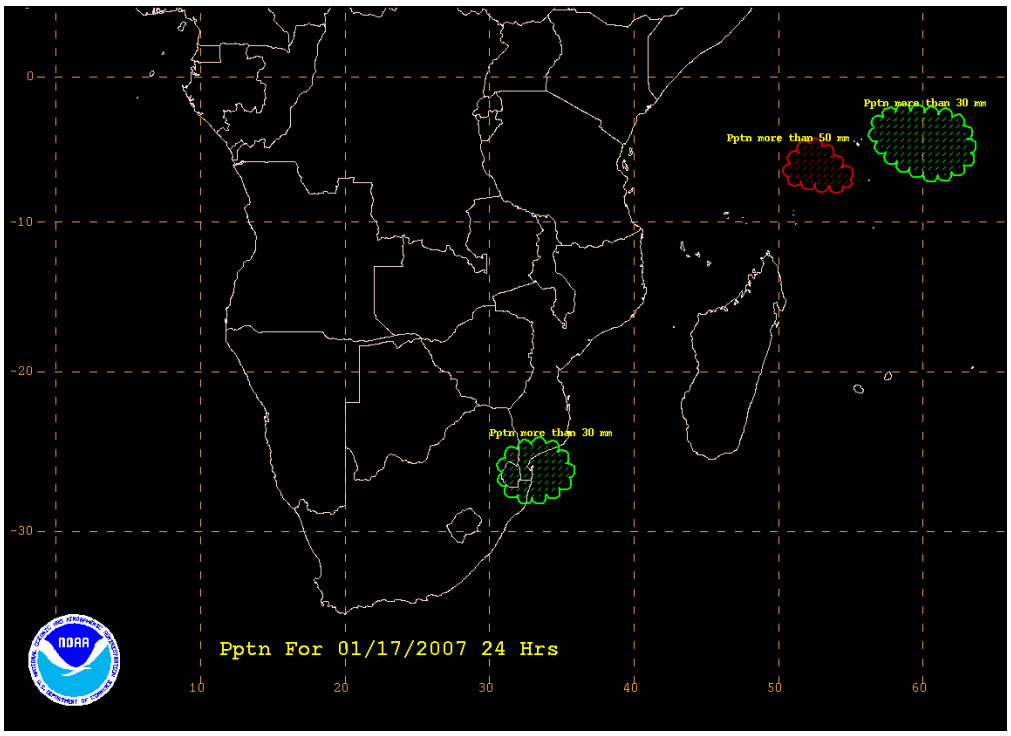
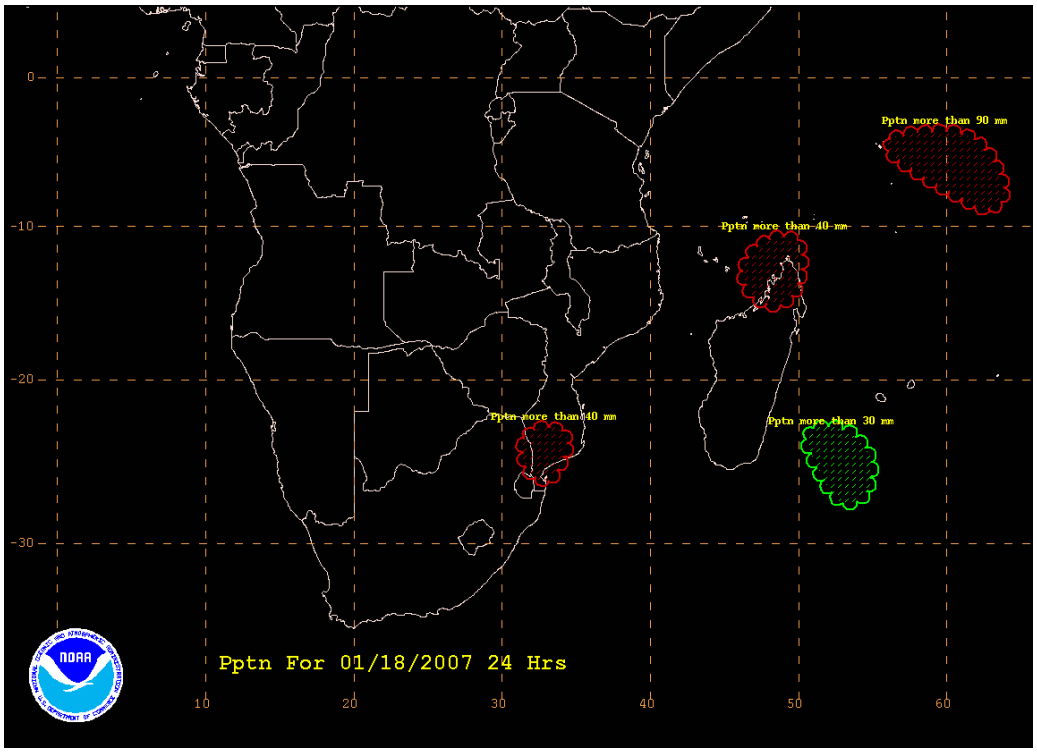
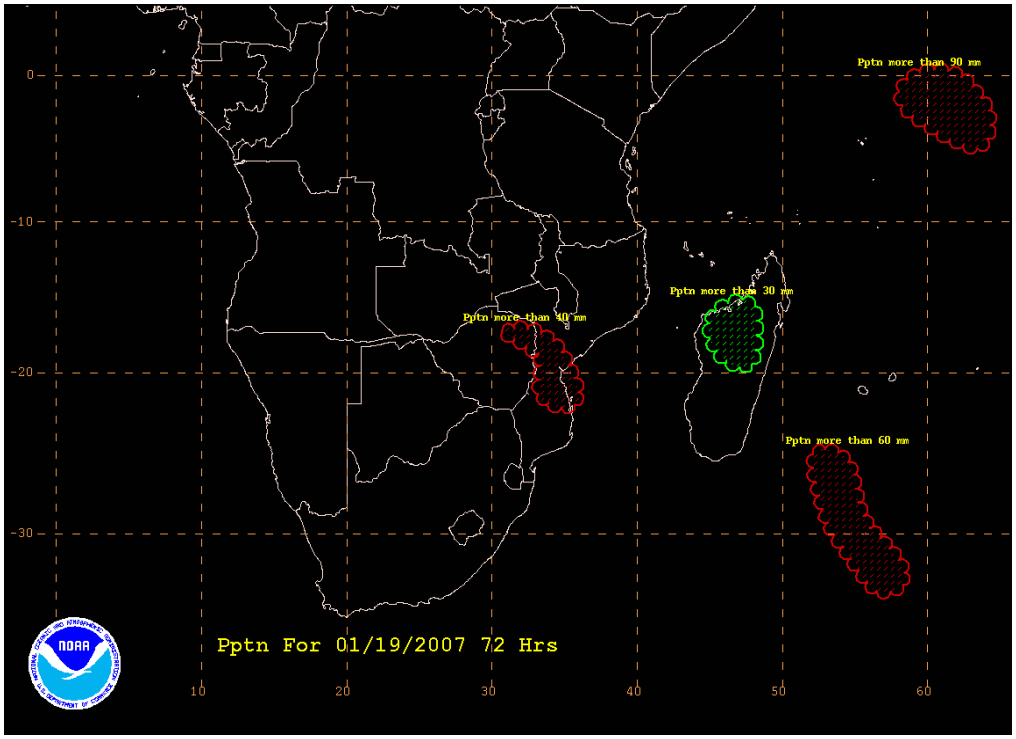
**FORECAST MAP FOR DAY1**



## FORECAST MAP FOR DAY2




## FORECAST FOR DAY 3


Pptn more than 90 mm
Pptn more than 30 mm
Pptn more than 40 mm
Pptn more than 60 mm
Pptn For 01/19/2007 72 Hrs
0
-10
-20
-30
10
20
30
40
50
60