



Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 13th March 2007

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

FORECAST DISCUSSION 14H00 EST 13th March 2007

Valid: 00Z 14th March 2007- 00Z 16th March 2007.

WARNING: TROPICAL CYCLONE 19S (INDLALA)

Position at 131200Z --- near 13.1S 54.0E

Movement past six hours - 255 degrees at 07 KTS

Present wind distribution: Max sustained winds - 075 KT, gusts 090 KT

12 hrs forecasts position valid at 140000Z --- 13.5S 53.0E

Max sustained winds - 090 KT, gusts 110 KT

24 hrs forecast position valid at 141200Z --- 14.1S 52.1E

Max sustained winds - 105 KT, gusts 130 KT

36 hrs forecast position valid at 150000Z ---15.1S 51.3E

Max sustained winds - 105 KT, gusts 130 KT

Extended Outlook: 16.7S 50.6E

48 hrs forecast position valid at 151200Z --- 16.7S 50.6E

Max sustained winds - 095 KT, gusts 115 KT

At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows a high pressure system with two cells centered at 13°S 2°E and at 18°S 57°E, causing divergence over most of the sub continent. A trough is causing convergence over areas of the sub continent which are east of 25°E longitude but south of 22°S latitude. Another high pressure system with its center located at 28°S 24°E is causing divergence over the southwestern parts of the sub continent. At T+48 hrs, there is a trough to the southwest of the sub continent, with its northwest axis lying at 38°S 18°E and its southeast axis lying at 60°S 62°E causing convergence over these areas.

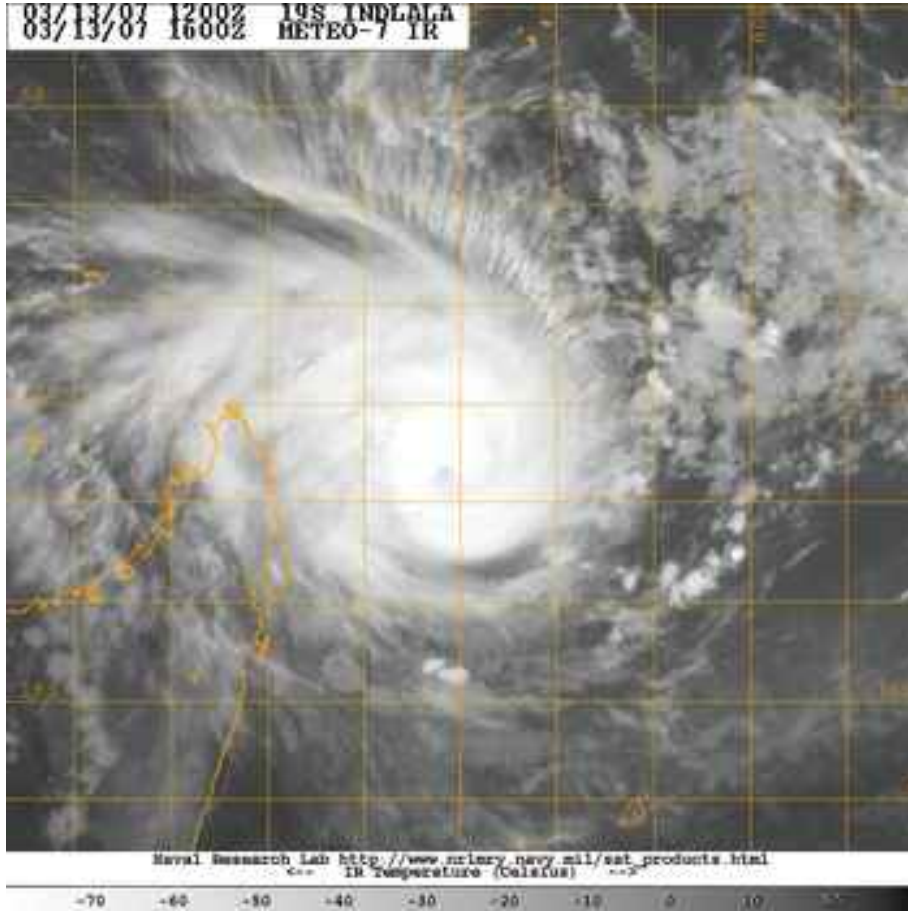
Anticyclonic flow prevails over the rest of the sub continent. At T+72 hrs, the trough has shifted eastward, causing convergence over the southeastern areas of South Africa. There is no significant change in the general flow pattern elsewhere, except that the high to the northeast of Madagascar has slightly shifted eastward.

At 500hpa, there is a low to the northeast of Madagascar ($12^{\circ}\text{S } 51^{\circ}\text{E}$), lying between the two cells of the Mascarene high located at $8^{\circ}\text{S } 61^{\circ}\text{E}$, and another one which is lying at $26^{\circ}\text{S } 53^{\circ}\text{E}$ and is ridging into Madagascar. A trough is causing convergence over areas of the sub continent which are east of 23°E longitude but south of 19°S latitude. The St Helena high pressure system with two cells centered at $25^{\circ}\text{S } 19^{\circ}\text{W}$ and at $28^{\circ}\text{S } 11^{\circ}\text{E}$, is causing divergence over the western parts of the sub continent. There is a low over northeastern Angola, causing convergence. The slight high pressure system over Zambia counterbalances the Tropical Cyclone Indlala. At T+48 hrs, the low to the northeast of Angola has slightly filled up, and over the extreme northeastern parts of Madagascar the cyclonic circulation is persistent, due to the Tropical Cyclone Indlala ($14^{\circ}\text{S } 49^{\circ}\text{E}$). Elsewhere there is no significant change in the general flow pattern. At T+72 hrs, there is a trough over the Atlantic Ocean approaching the southwestern coast of the sub continent. The convergence over areas of the sub continent which are east of 23°E longitude but south of 19°S latitude is maintained. The low to the northwest of Madagascar has shifted southeastwards to $18^{\circ}\text{S } 50^{\circ}\text{E}$. Divergence prevails over the rest of the sub continent.

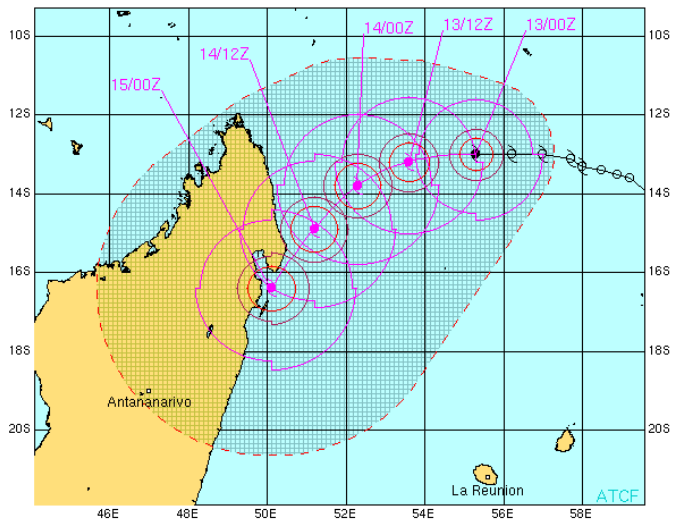
At 850hPa, the Tropical cyclone (Indlala), is just to the northeastern Madagascar near $12^{\circ}\text{S } 52^{\circ}\text{E}$. This low is lying between the two cells of the Mascarene high centered at $4^{\circ}\text{S } 70^{\circ}\text{E}$ and the another at $33^{\circ}\text{S } 72^{\circ}\text{E}$, throwing a ridge into all areas of the sub continent that are south of 10°S latitude and east of 20°E longitude. There is low centered at $29^{\circ}\text{S } 25^{\circ}\text{E}$, just over South Africa. Areas of the sub continent which are north of 12°S latitude are under convergence due to a trough. The St Helena high, has its center located at $32^{\circ}\text{S } 10^{\circ}\text{W}$ and it is throwing a ridge over the western parts of the sub continent. At T+48 hrs, the St Helena high shifts eastwards and has its center at $32^{\circ}\text{S } 5^{\circ}\text{E}$, and it is extending a ridge into western parts of the sub continent, but there is a low over the coast of Angola. Over the extreme northeastern parts of Madagascar cyclonic circulation prevails. Anticyclonic flow is maintained elsewhere. At T+72 hrs there is no significant change in the general flow pattern except over southern Uganda, where there is a low causing convergence.

Generally there is a resemblance in the patterns of UK- Met, ECMWF and GFS models.

**SATELLITE IMAGERY OF THE MODERATE TROPICAL CYCLONE
INDLALA**



TROPICAL CYCLONE INDLADA TRACK AS ISSUED BY JTWC



TROPICAL CYCLONE 196 (INDLALA) WARNING #3
 130000Z POSIT: NEAR 13.0S 55.3E
 MOVING 270 DEGREES TRUE AT 09 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 25 FEET
 13/00Z, WINDS 070 KTS, GUSTS TO 085 KTS
 13/12Z, WINDS 085 KTS, GUSTS TO 105 KTS
 14/00Z, WINDS 095 KTS, GUSTS TO 115 KTS
 14/12Z, WINDS 100 KTS, GUSTS TO 125 KTS
 15/00Z, WINDS 105 KTS, GUSTS TO 130 KTS

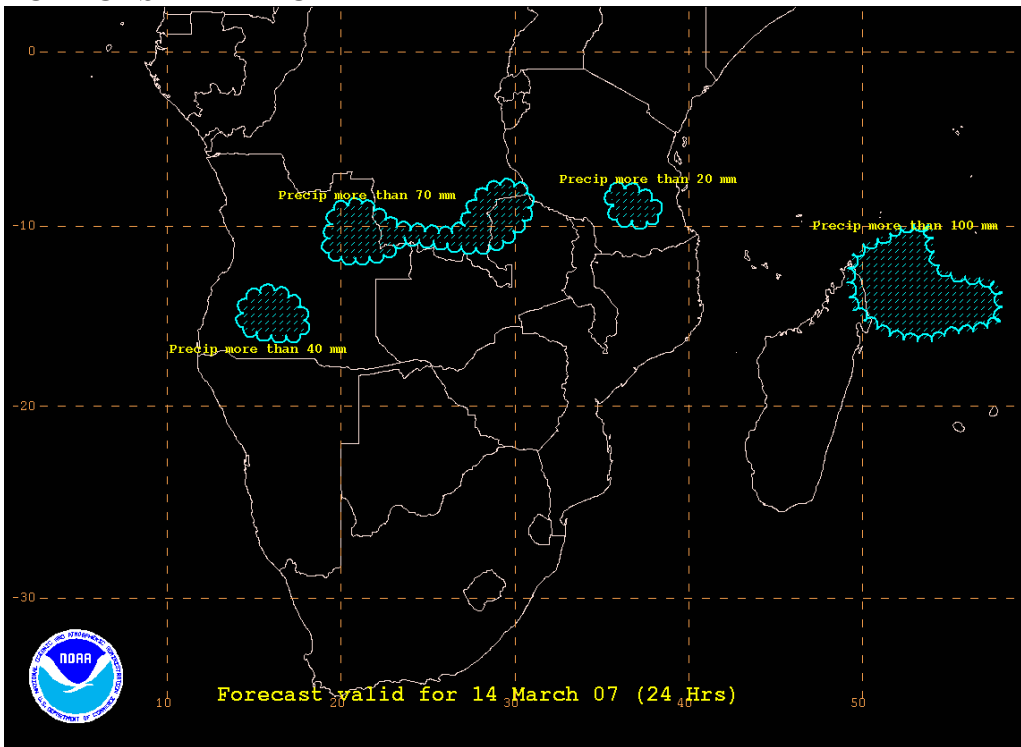
| | | |
|----------|-----|--------|
| CPA TO: | NM | DTG |
| ST_DENIS | 304 | 15/00Z |

| BEARING AND DISTANCE | DIR | DIST (NM) | TRV (HRS) |
|----------------------|-----|-----------|-----------|
| ST_DENIS | 309 | 385 | 48 |

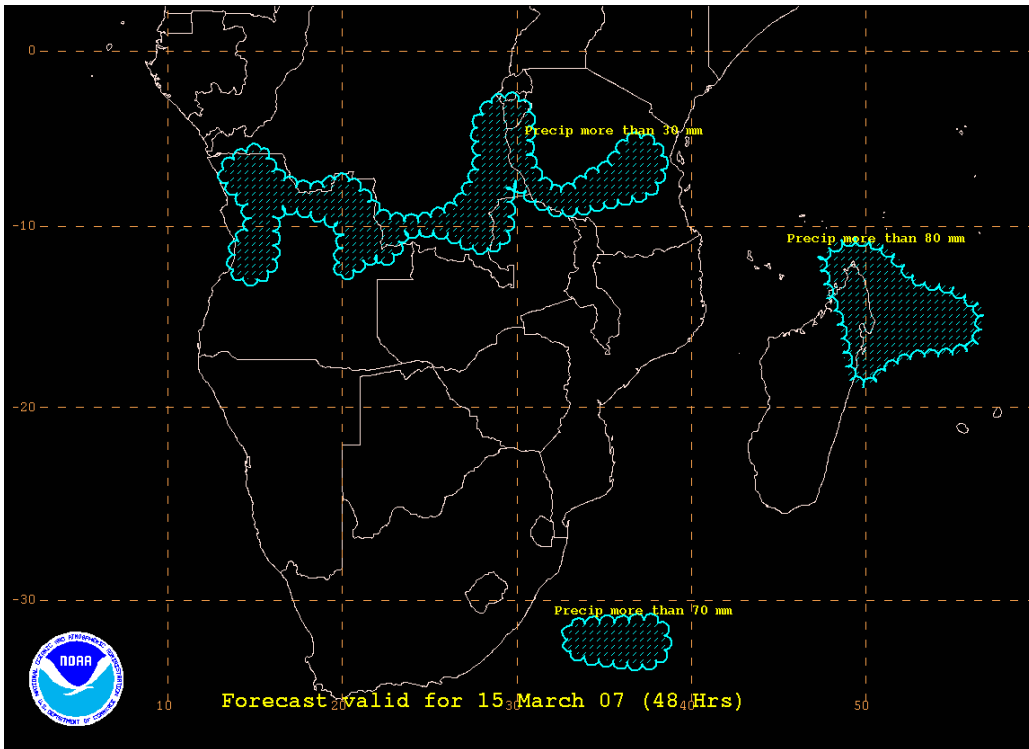
○ TROPICAL DEPRESSION
 ○ TROPICAL STORM
 ● TYPHOON
 FAST 6 HOURLY CYCLONE POSITS IN BLACK
 FORECAST CYCLONE POSITS IN COLOR



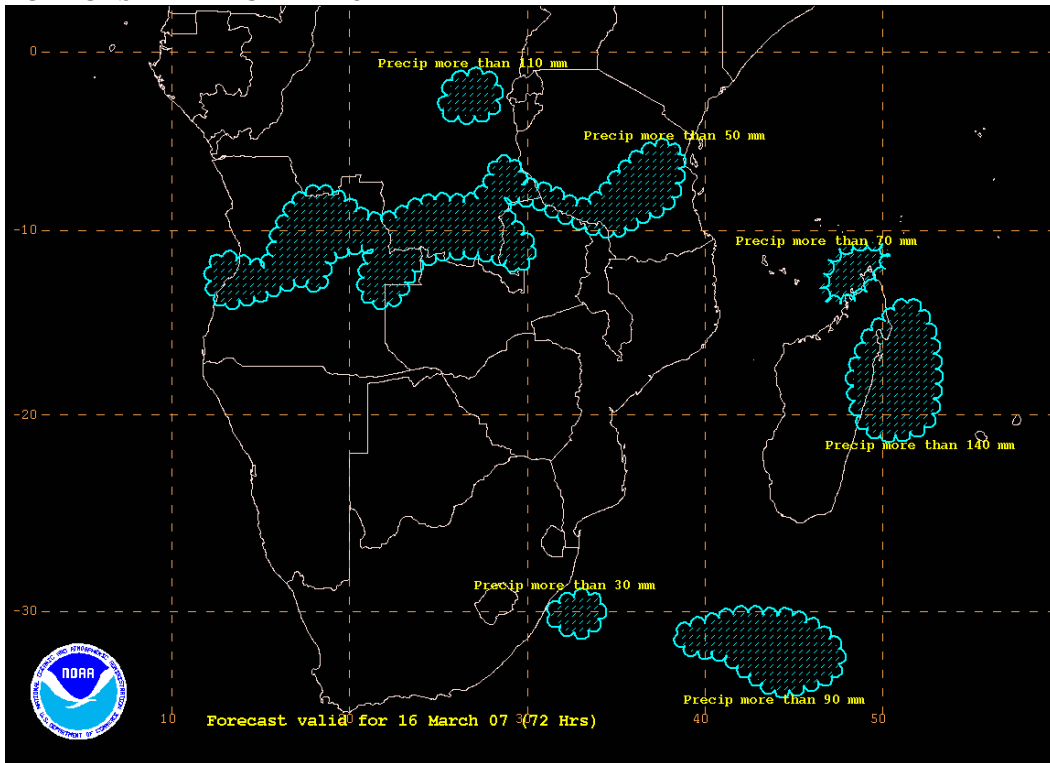
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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