Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 14th March 2007

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

FORECAST DISCUSSION 14H00 EST 14th March 2007
Valid: 00Z 15th March 2007- 00Z 17th March 2007.

WARNING: TROPICAL CYCLONE 19S (INDLALA)

Position at 141200Z --- near 14.3S 51.5E
Movement past six hours - 245 degrees at 07 KTS
Present wind distribution: Max sustained winds - 115 KT, gusts 140 KT
Pressure at center 940 hPa

12 hrs forecasts position valid at 150000Z --- 15.0S 50.8E
Max sustained winds - 125 KT, gusts 150 KT

24 hrs forecast position valid at 151200Z --- 15.6S 50.2E
Max sustained winds - 105 KT, gusts 130 KT

36 hrs forecast position valid at 160000Z --- 16.4S 49.6E
Max sustained winds - 100 KT, gusts 125 KT

Extended Outlook:
48 hrs forecast position valid at 161200Z --- 17.3S 49.1E
Max sustained winds - 075 KT, gusts 090 KT

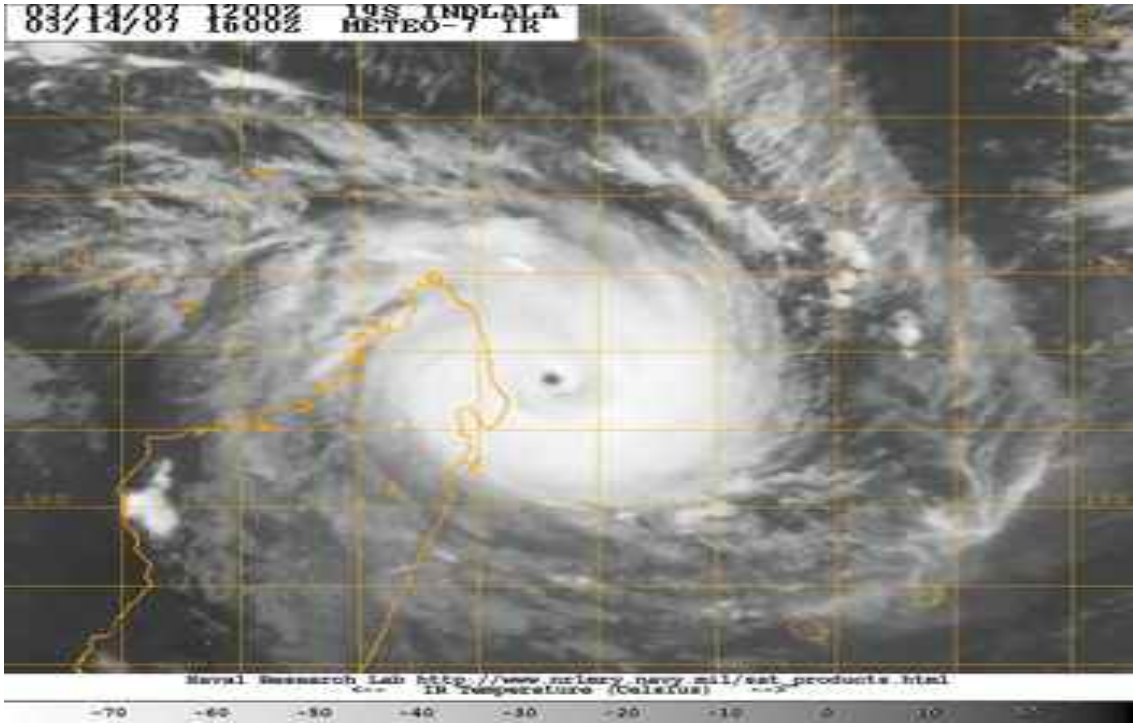
At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows a high pressure system with its center located at 18°S 58°E, causing divergence over most of the sub continent. A trough lying to the southwest of the sub continent is causing convergence over southwestern South Africa. At T+48 hrs, the anticyclonic flow prevails, over most of the sub continent and the high pressure system has now two cells, one centered at 13°S 24°E and another one at 17°S 58°E. The trough has shifted to the southeast of the sub continent, with its northwest axis lying at 29°S

28°E and its southeast axis lying at 60°S 52°E. At T+72 hrs, there is no significant change in the general flow pattern, except that the trough has shifted eastward.

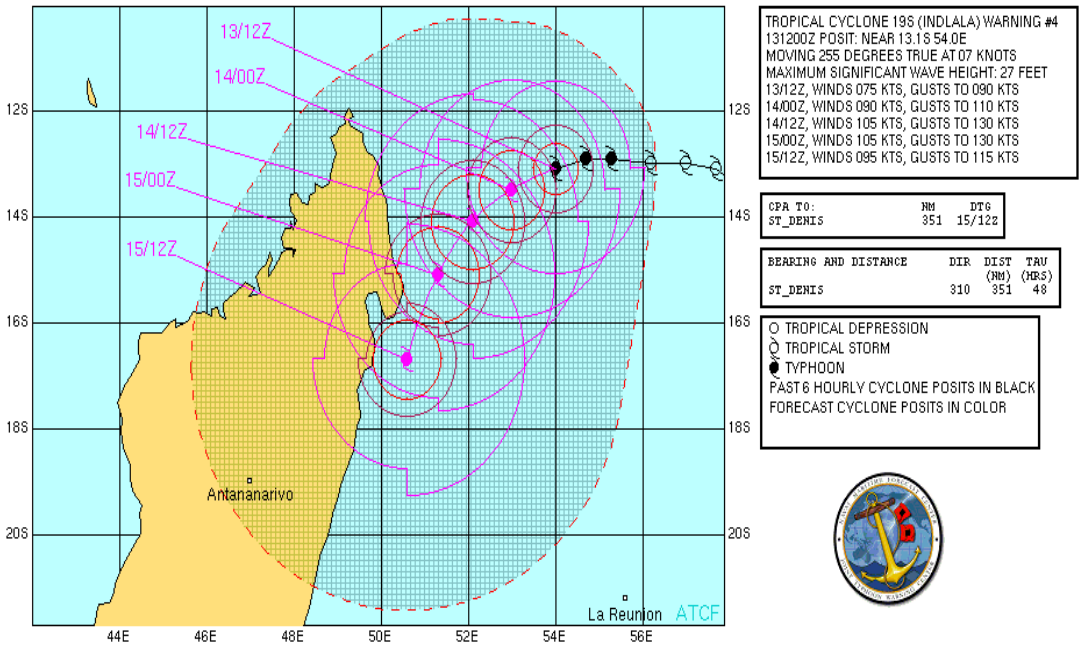
At 500hpa, there is a low (Tropical Cyclone Indlala) to the northeast of Madagascar (14°S 50°E). The Mascarene high has its center located at 5°S 55°E. There is a trough causing convergence over southern Madagascar. The St Helena high pressure system with two cells over the sub continent centered at 24°S 18°E and at 16°S 28°E, is causing divergence over most of the sub continent. The southwesterly flow is blocking the Tropical Cyclone Indlala. At T+48 hrs, the cyclonic circulation persists, due to the Topical Cyclone Indlala (16°S 49°E), over the extreme northeastern parts of Madagascar. There is a trough over the southeastern coast of the sub continent and another one over southern Madagascar, causing convergence over these areas. 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 30°E longitude but south of 20°S latitude is maintained. The low to the northwest of Madagascar has shifted southeastwards to 18°S 49°E. Divergence prevails over the rest of the sub continent.

At 850hPa, the Tropical cyclone (Indlala) is just to the northeastern Madagascar near 14°S 51°E. This low is lying between the two cells of the Mascarene high centered at 4°S 59°E and at 31°S 70°E. A bud-off high centered at 39°S 31°E, is throwing a ridge into the southeastern part of the sub continent. The St Helena high, has its center located at 32°S 8°W and is throwing a ridge over the western parts of the sub continent, except over central Angola where there is low causing convergence. Areas of the sub continent which are north of 12°S latitude are under convergence due to a trough. At T+48 hrs, the St Helena high shifts eastwards and has its center at 31°S 5°E. The low over the center of Angola and northeastern Madagascar prevails. There is another low just to the southeast of the sub continent, centered at 32°S 35°E. 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.

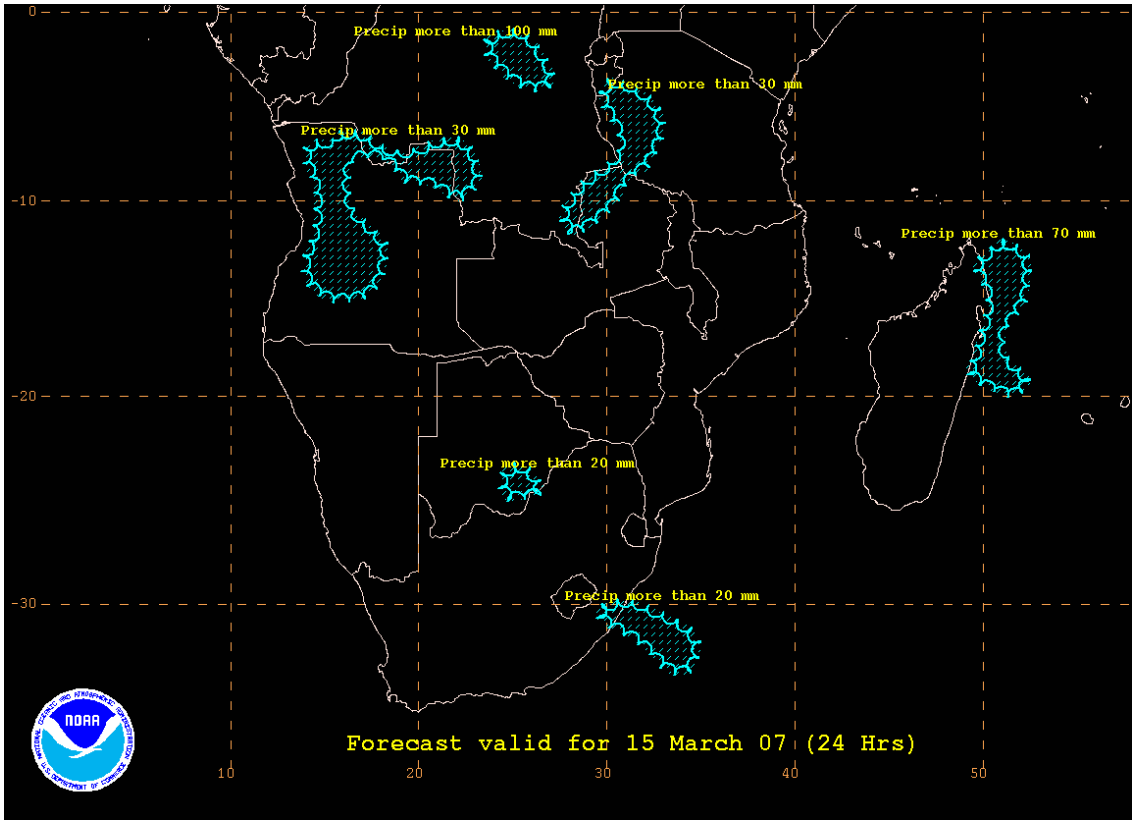
SATELLITE IMAGERY OF THE MODERATE TROPICAL CYCLONE INDLALA



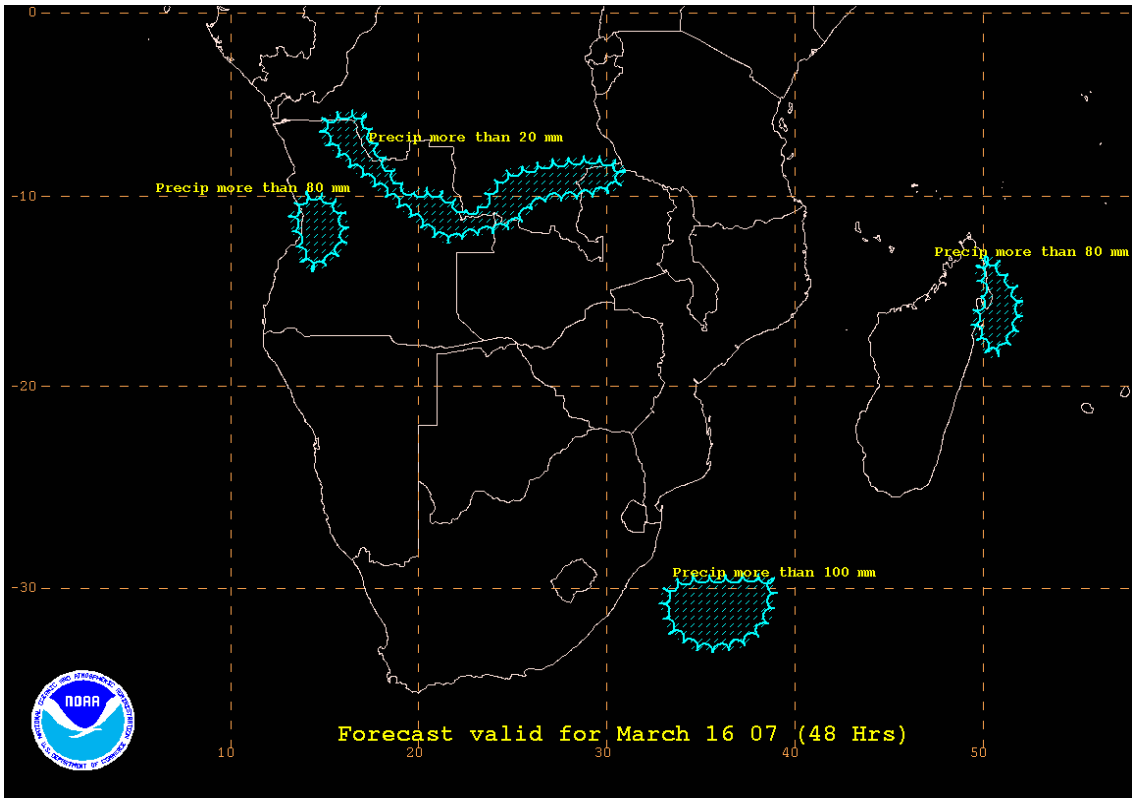
TROPICAL CYCLONE INDLALA TRACK AS ISSUED BY JTWC



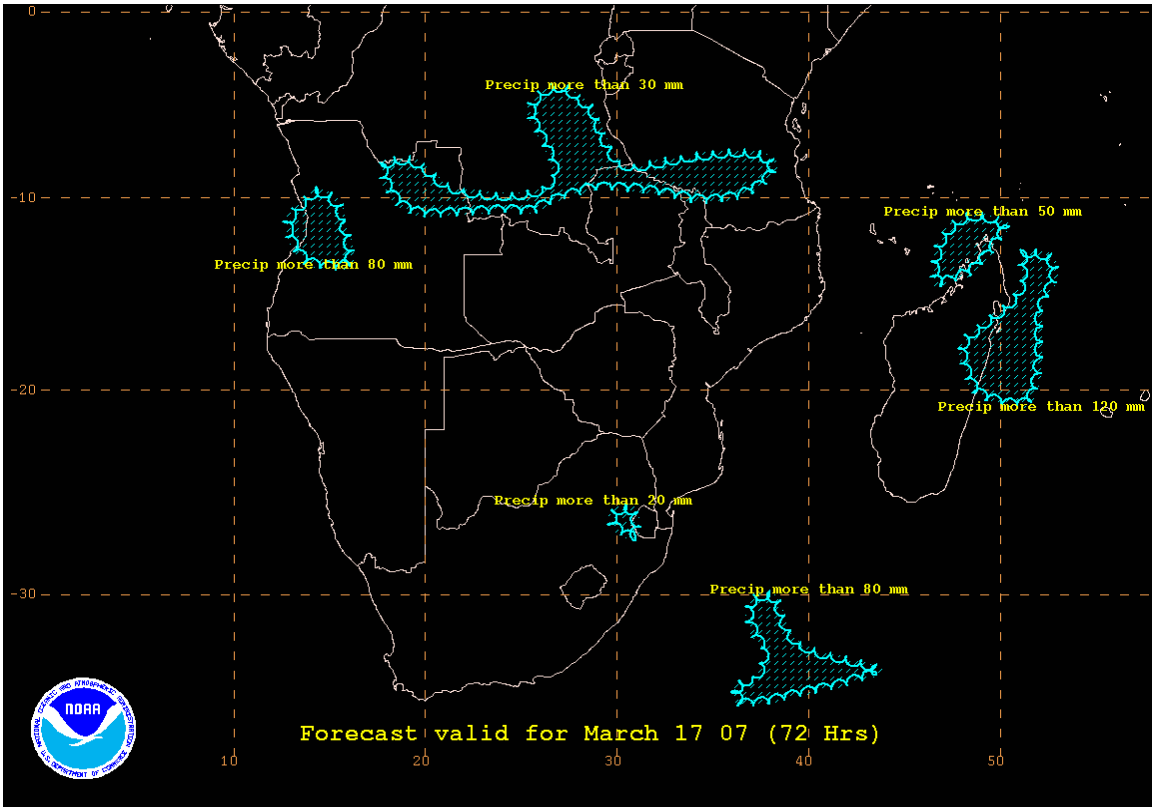
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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