Forecast guidance for Severe Weather Forecasting Demonstration Project (SWFDP)

SHORT RANGE FORECAST DISCUSSION 14H00 EST 15th March 2007

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

FORECAST DISCUSSION 14H00 EST 15th March 2007
Valid: 00Z 16th March 2007- 00Z 18th March 2007.

WARNING: MODERATE TROPICAL STORM 19S (INDLALA)

Position at 151200Z --- near 15.2S 49.8E
Movement past six hours - 245 degrees at 04 KTS
Present wind distribution: Max sustained winds -085 KT, gusts 105 KT
Pressure at center 975 hPa

12 hrs forecasts position valid at 160000Z --- 15.7S 48.8E
Max sustained winds - 060 KT, gusts 075 KT

24 hrs forecast position valid at 161200Z --- 16.7S 47.7E
Max sustained winds - 035 KT, gusts 045 KT

36 hrs forecast position valid at 170000Z --- 17.8S 46.8E
Max sustained winds - 020 KT, gusts 030 KT

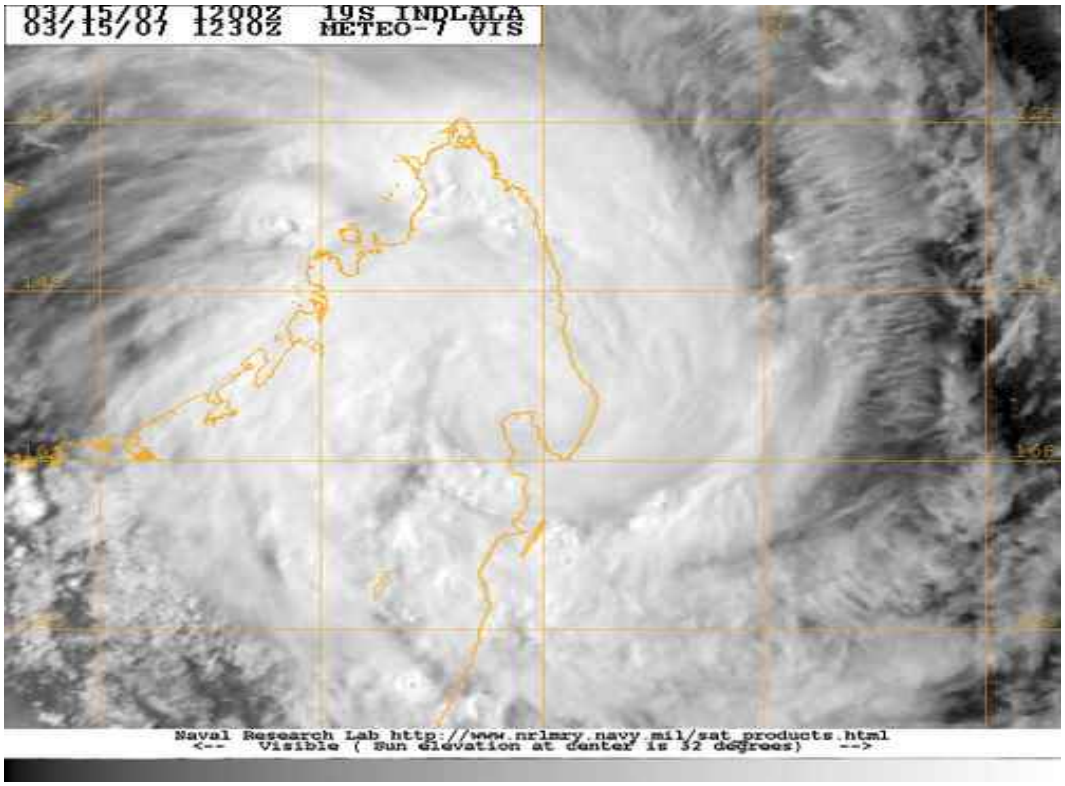
At T+24 hrs, the general flow pattern at 200hpa over Southern Africa (South of the Equator) shows a high pressure system with two cells centered at 16°S 56°E and 12°S 29°E, causing divergence over most parts of the sub continent. A trough lying to the southeast of the sub continent is causing convergence over southeastern South Africa. At T+48 hrs, anticyclonic flow prevails over the sub continent. The trough has shifted to the Mozambican Channel, causing convergence over the areas which are to the east of 35°E but south of 19°S. At T+72 hrs, there is no significant change in the general flow pattern, except that the trough over Mozambican Channel has shifted southward.

At 500hpa, there is a Tropical Cyclone Indlala to the northeast of Madagascar (18°S 49°E). The Mascarene high has two cells centered at 5°S 49°E and at 20°S 58°E, and is ridging into the northeastern parts of the sub continent. There is a trough causing convergence over southeastern South Africa. The St Helena high pressure system with two cells centered at 25°S 19°E and at 22^{o}S 8^{o}W, is causing divergence over the rest of the sub continent. The bud-off low to the southwestern Madagascar is causing convergence over these areas. At T+48 hrs, the Tropical Cyclone Indlala (21°S 48°E), has shifted south-southeastward slightly weakening. The trough over the southeastern coast of the sub continent has shifted eastward and there is another trough to the southwestern of the sub continent. Elsewhere there is no significant change in the general flow pattern. At T+72 hrs, the trough over the southwestern coast of the sub continent has filled up as the St Helena high pressure system shifts southeastward. The convergence over areas of the sub continent which are to the east of 30°E longitude but south of 22°S latitude is maintained. The central portion of Namibia is under a low which is causing convergence. The tropical cyclone Indlala has shifted further east of Madagascar reducing its influence over this area. Divergence prevails over the rest of the sub continent.

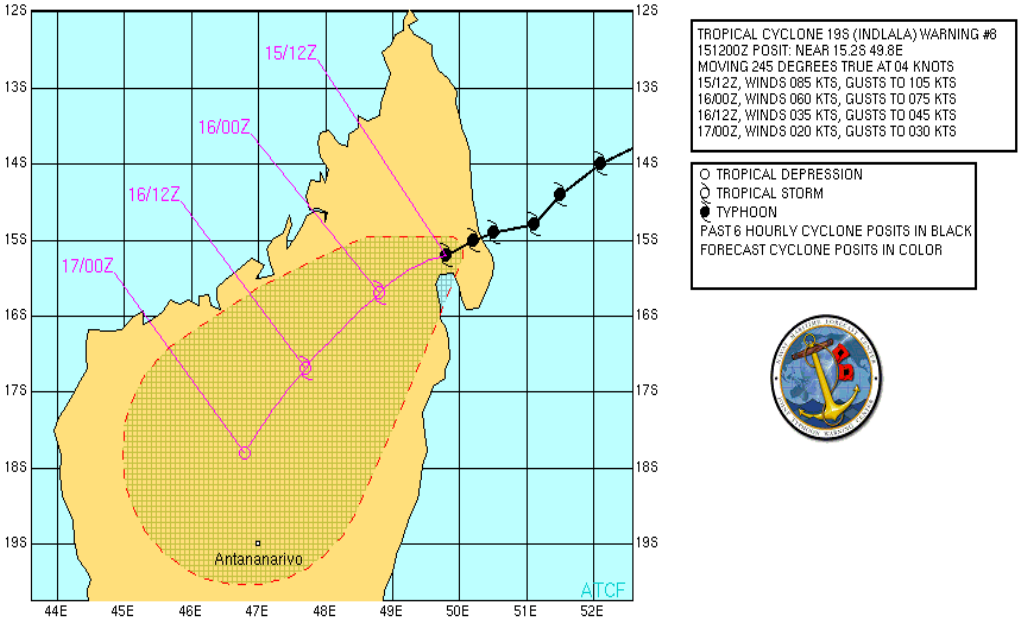
At 850hPa, the Tropical cyclone (Indlala) is over the northeastern Madagascar near 16°S 48°E. This low, lying between the two cells of the Mascarene high centered at 8°S 51°E and at 35°S 51°E, is causing convergence over the southeastern part of the sub continent (areas which are to the east of 30°E longitude but south of 11°S latitude). The St Helena high, has its center located at 32°S 15°W and is throwing a ridge over the western parts of the sub continent, except over southern Angola where there is low causing convergence. Areas of the sub continent which are north of 16°S latitude are under convergence due to a trough. At T+48 hrs, the St Helena high shifts southeastwards, but the low over Angola still exists except that it has shifted westwards. The low over central Madagascar has shifted southeastward. There is another low just to the southeast of the sub continent, centered at 33°S 36°E. Anticyclonic flow is maintained elsewhere. At T+72 hrs, the St Helena high shifts southeastwards causing divergence over most of the subcontinent, except over Angola and Botswana where there is a low. The tropical cyclone Indlala is still causing some showers over the eastern coast of Madagascar.

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

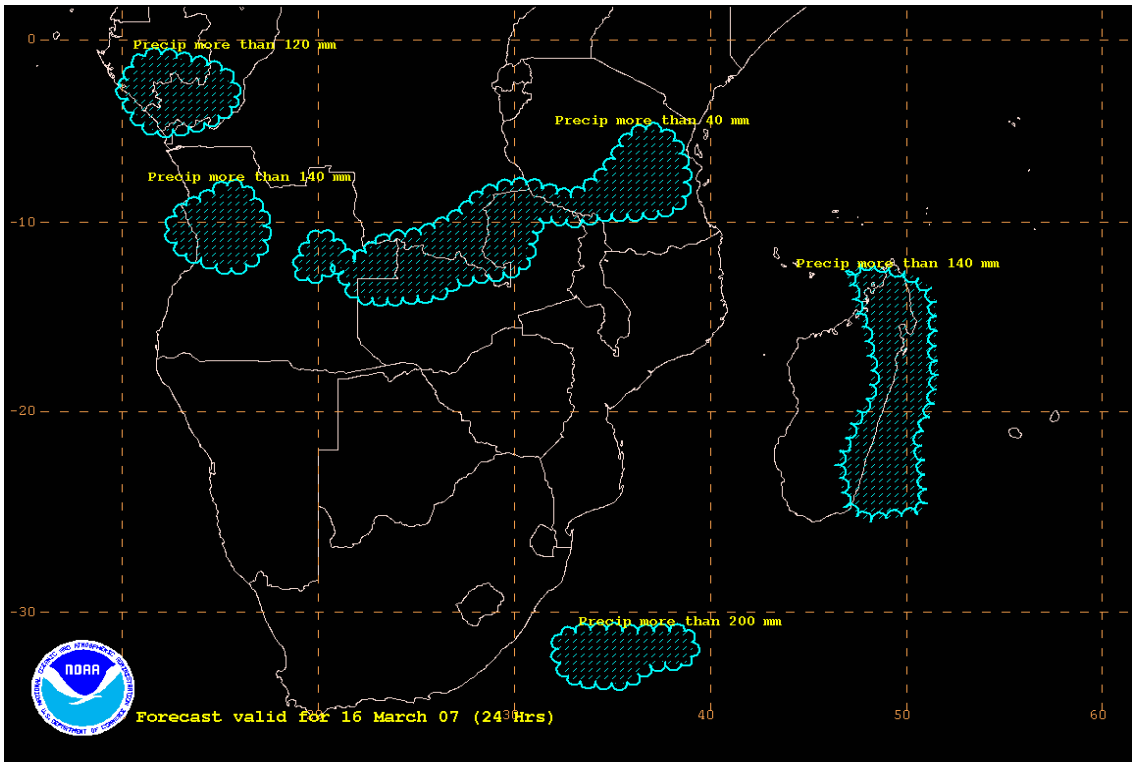
SATELLITE IMAGERY OF THE MODERATE TROPICAL STORM INDLALA



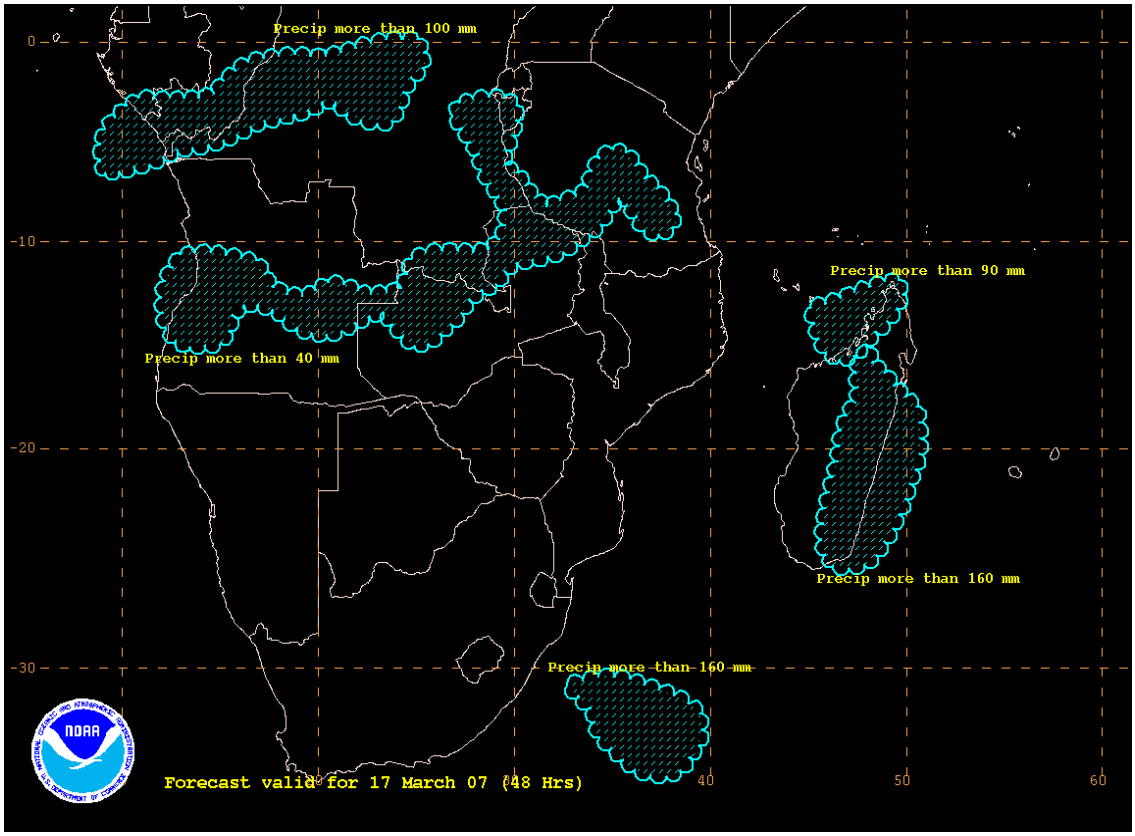
MODERATE TROPICAL STORM INDLALA TRACK AS ISSUED BY JTWC



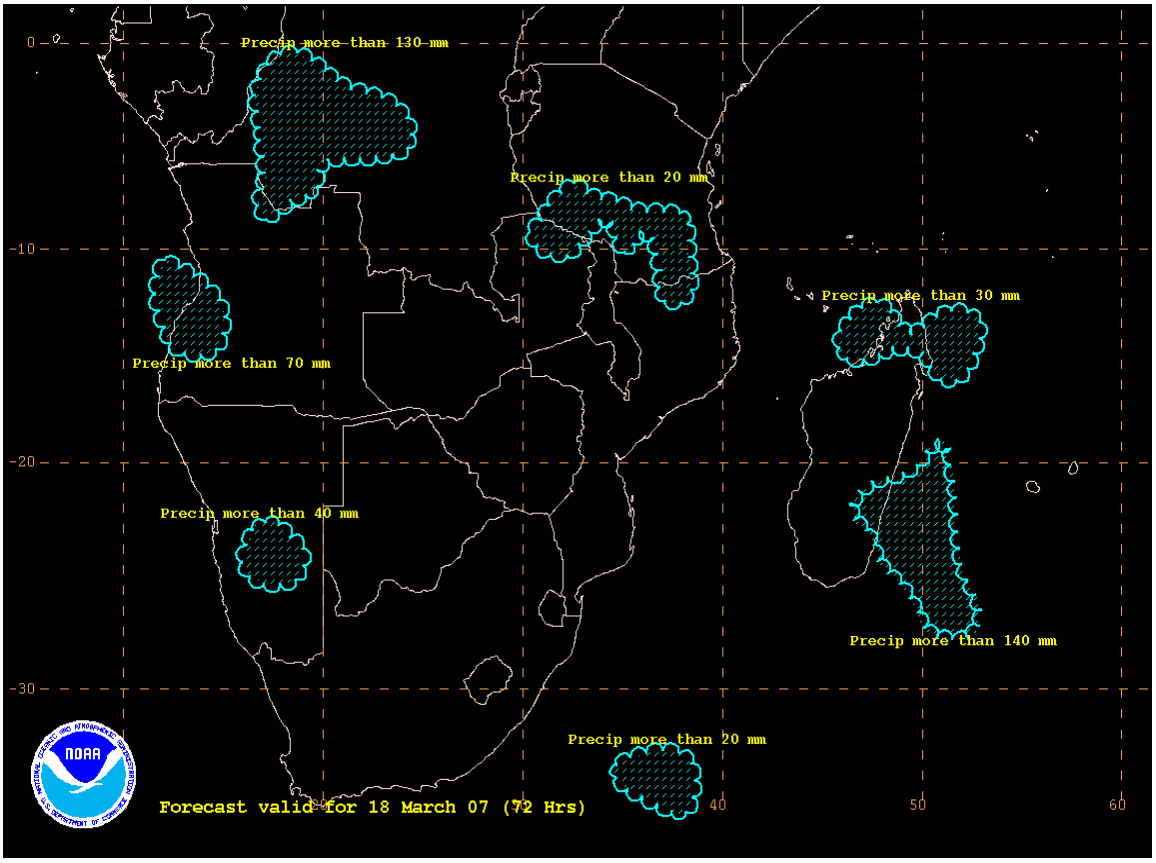
FORECAST MAP FOR DAY 1



FORECAST FOR DAY 2



FORECAST MAP FOR DAY 3



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