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METEO FRANCE
Toujours un temps d'avance

WTIO30 FMEE 161308

RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 10/6/20142015

1.A SEVERE TROPICAL STORM 6 (CHEDZA)

2.A POSITION 2015/01/16 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 19.9 S / 43.9 E

(NINETEEN DECIMAL NINE DEGREES SOUTH AND FORTY THREE DECIMAL NINE DEGREES EAST)

MOVEMENT : EAST-SOUTH-EAST 8 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/6 H

4.A CENTRAL PRESSURE: 975 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT

RADIUS OF MAXIMUM WINDS (RMW) :56 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):

28 KT NE: 280 SE: 190 SW: 220 NW: 300

34 KT NE: 170 SE: 130 SW: 170 NW: 200

48 KT NE: 100 SE: 80 SW: 100 NW: 110

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 1200 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2015/01/17 00 UTC: 20.6 S / 45.2 E, MAX WIND=030 KT, INLAND

24H: 2015/01/17 12 UTC: 21.6 S / 48.6 E, MAX WIND=030 KT, TROPICAL DEPRESSION

36H: 2015/01/18 00 UTC: 22.0 S / 50.8 E, MAX WIND=035 KT, TROPICAL DEPRESSION

48H: 2015/01/18 12 UTC: 22.3 S / 51.9 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

60H: 2015/01/19 00 UTC: 22.9 S / 52.7 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

72H: 2015/01/19 12 UTC: 23.3 S / 53.1 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2015/01/20 12 UTC: 24.7 S / 53.9 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

120H: 2015/01/21 12 UTC: 26.2 S / 55.3 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

2.C ADDITIONAL INFORMATIONS:

T=CI=3.5

THE CLOUD PATTERN OF CHEDZA HAS IMPROVED OVER THE LAST 6 HOURS BUT THE IMMINENT LANDFALL IS LIKELY TO STOP FURTHER SIGNIFICANT INTENSIFICATION. THE CURRENT POSITION IS BASED ON GEOSTAT FIX WITH AN EVIDENT CENTER. THE CURRENT INTENSITY (VMAX, PMIN) IS BASED ON OBS FROM MORONDAVA AT 12Z (10 MIN WINDS AT 54 KT AND MSLP AT 980.7 HPA) THAT WAS ALSO HELPFUL TO ASSESS THE RADIUS OF MAX WINDS.

LANDFALL IS EXPECTED WITHIN A FEW HOURS BETWEEN BELO AND MORONDAVA. NUMERICAL STORM SURGE SIMULATIONS GIVE AS RESULTS : 1M50 TO 2M WITHIN THE AREA NORTH OF THE TRACK BETWEEN MAINTIRANO AND BELO. NOTE THAT THIS STORM SURGE FORECAST IS TO TAKE WITH CAUTION AND DOES NOT TAKE IN ACCOUNT THE ADDITIONAL SUBMERSION EFFECTS DUE TO THE CYCLONIC SWELL AND ASTRONOMIC TIDE.

MOST OF THE AVAILABLE NWP MODELS SUGGEST THAT THE LOW LEVEL CIRCULATION COULD RE-DEVELOP AS THE SYSTEM GET BACK OVERSEA ON THE SOUTH-EAST OF MADAGASCAR ON SATURDAY. ENVIRONMENTAL CONDITIONS ARE EXPECTED TO BE MARGINAL BY THAT TIME WITH A MODERATE WEST-NORTH-WESTERLY VERTICAL WINDSHEAR HOWEVER WEAKENING ON SUNDAY AND IN THE SAME DIRECTION THAN THE SYSTEM'S MOTION, BUT IN A VERY GOOD LOW LEVEL CONVERGENCE ENVIRONMENT OVER FAVORABLE HEAT OCEANIC CONTENTS AND SUSTAINED BY AN EFFICIENT POLEWARD UPPER-LEVEL OUTFLOW. FROM TUESDAY AND BEYOND, A RISING WINDSHEAR SHOULD PREVENT SIGNIFICANT INTENSIFICATION. SURPRISINGLY, MOST NWP GUIDANCE CONTINUE TO STRENGTHEN THE SYSTEM BY THAT TIME.

UNTIL SUNDAY, THE SYSTEM IS EXPECTED TO MOVE GENERALLY EASTWARDS ON THE SOUTHERN EDGE OF THE NEAR EQUATORIAL RIDGE. ON AND AFTER MONDAY, A MID-LEVEL TROUGH ARRIVES IN THE SOUTH AND CHEDZA IN THEN EXPECTED TO RECURVE SOUTH-SOUTH-EASTWARDS. HOWEVER THE LATEST ENSEMBLE FORECAST SHOW SOME SIGNIFICANT SPREAD OF THE TRACK WHEN THE SYSTEM WILL EVOLVE TO THE SOUTHWEST OF THE MASCAREIGNES.