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WTIO30 FMEE 160703
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/7/20202021
1.A TROPICAL DEPRESSION 7

2.A POSITION 2021/01/16 AT 0600 UTC:
WITHIN 20 NM RADIUS OF POINT 12.5 S / 66.3 E
(TWELVE DECIMAL FIVE DEGREES SOUTH AND
SIXTY SIX DECIMAL THREE DEGREES EAST)
MOVEMENT: SOUTH-WEST 5 KT

3.A DVORAK ANALYSIS: 1.5/1.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 998 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 0 SE: 0 SW: 250 NW: 195

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 800 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):
12H: 2021/01/16 18 UTC: 12.8 S / 64.5 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 0 SE: 0 SW: 250 NW: 195

24H: 2021/01/17 06 UTC: 13.0 S / 62.2 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 95 SE: 205 SW: 260 NW: 155
34 KT NE: 0 SE: 0 SW: 110 NW: 100

36H: 2021/01/17 18 UTC: 13.4 S / 59.8 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 220 SW: 295 NW: 155
34 KT NE: 95 SE: 120 SW: 130 NW: 100

48H: 2021/01/18 06 UTC: 13.9 S / 57.3 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 195 SE: 175 SW: 215 NW: 185
34 KT NE: 130 SE: 130 SW: 130 NW: 110

60H: 2021/01/18 18 UTC: 14.8 S / 54.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 195 SE: 175 SW: 215 NW: 185
34 KT NE: 130 SE: 130 SW: 130 NW: 110

48 KT NE: 35 SE: 55 SW: 75 NW: 35

72H: 2021/01/19 06 UTC: 15.6 S / 53.1 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 195 SE: 175 SW: 215 NW: 185
34 KT NE: 130 SE: 130 SW: 130 NW: 110
48 KT NE: 35 SE: 55 SW: 75 NW: 35

2.B LONGER-RANGE OUTLOOK:
96H: 2021/01/20 06 UTC: 16.5 S / 50.2 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM
28 KT NE: 195 SE: 175 SW: 215 NW: 185
34 KT NE: 130 SE: 130 SW: 130 NW: 110
48 KT NE: 35 SE: 75 SW: 75 NW: 35

120H: 2021/01/21 06 UTC: 17.5 S / 46.0 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

2.C ADDITIONAL INFORMATION:
T=CI=1.5+

DURING THE LAST 6 HOURS, THE CONFIGURATION OF THE SYSTEM HAS CHANGED LITTLE (SHEAR PATTERN WITH A CENTER LOCATED EAST OF THE MAIN CONVECTION). ALTHOUGH THE CLOUD TOPS HAVE TENDED TO WARM UP (DIURNAL CYCLE), THIS MORNING'S ASCAT DATA SHOWS THAT NEAR GALE FORCE WINDS HAVE EXTENDED THROUGHOUT THE WESTERN SEMICIRCLE, WITH A CENTER, ALTHOUGH STILL ELONGATED, TENDING TO GAIN IN DEFINITION. BASED ON THESE ELEMENTS THE SYSTEM IS NOW ANALYZED AS A TROPICAL DEPRESSION.

OVER THE WEEKEND, THE ENVIRONMENT OF THE SYSTEM WILL GRADUALLY BECOME MORE FAVORABLE FOR DEVELOPMENT, THE LOW LEVELS CONVERGENCE ON THE EQUATORIAL SIDE WILL IMPROVE. WITH THE APPROACH OF THE AXIS OF THE UPPER LEVELS RIDGE, THE SHEAR SHOULD PROGRESSIVELY WEAKEN AND THE DIVERGENCE IS EXPECTED TO STRENGTHEN IN THE NORTHWESTERN QUADRANT. AT THE BEGINNING OF THE WEEK, THE EASTERLY SHEAR SHOULD STRENGTHEN AGAIN, BUT THIS WILL BE ATTENUATED BY THE RAPID MOVEMENT OF THE SYSTEM IN THE DIRECTION OF THE SHEAR. FROM TUESDAY ONWARDS, THE UPPER LEVELS CONDITIONS BECOME MORE FAVORABLE FOR THE DEVELOPMENT OF THE SYSTEM.

THE SYSTEM IS EXPECTED TO CONTINUE IN A GENERAL WESTERLY DIRECTION UNDER THE INFLUENCE OF THE LOW TO MID SUBTROPICAL LOW RIDGE WHICH REMAINS SOUTH OF THE MASCARENES ISLANDS UNTIL MONDAY. AT THE END OF THIS PERIOD, A TROUGH IS EXPECTED TO NEAR THE SOUTH OF MADAGASCAR, AND CAUSES A WEAKNESS IN THE ANTICYCLONIC BELT. THE TRACK THEN TAKES AN INFLECTION IN A WEST-SOUTHWEST DIRECTION, CAUSING THE SYSTEM TO LAND ON THE EAST COAST OF MADAGASCAR.

IT IS TOO EARLY TO PINPOINT LOCATION AND INTENSITY AT LANDFALL BUT THERE IS AN INCREASING RISK OF STRONG WINDS, FLOODS AND STORM SURGE OVER SOME COASTAL AREAS OF EAST MADAGASCAR MAINLY BETWEEN SAMBAVA TO THE NORTH AND TAMATAVE TO THE SOUTH.