

WTIO30 FMEE 151841

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/7/20202021

1.A ZONE OF DISTURBED WEATHER 7

2.A POSITION 2021/01/15 AT 1800 UTC:

WITHIN 30 NM RADIUS OF POINT 11.9 S / 67.6 E
(ELEVEN DECIMAL NINE DEGREES SOUTH AND
SIXTY SEVEN DECIMAL SIX DEGREES EAST)

MOVEMENT: WEST 10 KT

3.A DVORAK ANALYSIS: 1.5/1.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 1001 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: 280 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/01/16 06 UTC: 12.0 S / 65.8 E, VENT MAX= 030 KT, TROPICAL DISTURBANCE
28 KT NE: 35 SE: 175 SW: 335 NW: 30

24H: 2021/01/16 18 UTC: 12.2 S / 64.1 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 45 SE: 175 SW: 335 NW: 20

36H: 2021/01/17 06 UTC: 12.5 S / 61.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 45 SE: 175 SW: 335 NW: 20

48H: 2021/01/17 18 UTC: 12.7 S / 59.8 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 110 SE: 175 SW: 335 NW: 100

34 KT NE: 100 SE: 130 SW: 85 NW: 95

60H: 2021/01/18 06 UTC: 13.2 S / 57.7 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 120 SE: 175 SW: 335 NW: 100

34 KT NE: 110 SE: 130 SW: 85 NW: 95

72H: 2021/01/18 18 UTC: 13.9 S / 55.5 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 130 SE: 175 SW: 335 NW: 110
34 KT NE: 120 SE: 140 SW: 85 NW: 100

2.B LONGER-RANGE OUTLOOK:

96H: 2021/01/19 18 UTC: 15.7 S / 51.8 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 150 SE: 175 SW: 335 NW: 110
34 KT NE: 140 SE: 155 SW: 85 NW: 100

120H: 2021/01/20 18 UTC: 16.5 S / 48.1 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
28 KT NE: 85 SE: 175 SW: 335 NW: 10

2.C ADDITIONAL INFORMATION:

T=CI=1.5.

IN THE LAST 6 HOURS, THE SYSTEM PRESENTED A SHEARED STRUCTURE, WITH A CENTER EXPOSED AT THE NORTHEAST EDGE OF THE CONVECTION. ACCORDING TO DATA FROM CIMMS AT 15UTC THE SYSTEM UNDERGOES A NORTHEASTERLY VERTICAL WIND SHEAR OF 25KT. THE LAST ASCAT-B DATA AT 16H40UTC SHOW NEAR GALE FORCE WINDS AWAY FROM THE CENTER IN THE SOUTHWEST QUADRANT.

OVER THE WEEKEND, THE ENVIRONMENT OF THE SYSTEM WILL GRADUALLY BECOME MORE FAVORABLE FOR DEVELOPMENT, THE CONVERGENCE OF LOW LAYERS ON THE EQUATORIAL SIDE WILL IMPROVE. WITH THE APPROACH OF THE AXIS OF THE ALTITUDE RIDGE, THE SHEAR SHOULD PROGRESSIVELY WEAKEN AND THE ALTITUDE DIVERGENCE IS EXPECTED TO STRENGTHEN IN THE NORTHWEST QUADRANT.

AT THE BEGINNING OF THE WEEK, THE EASTERN 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 ALTITUDE 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 SUBTROPICAL LOW TROPOSPHERIC RIDGE WHICH REMAINS SOUTH OF THE MASCARENE ISLANDS AND THE SYSTEM UNTIL MONDAY. AT THE END OF THIS PERIOD, A THALWEG RISES OVER THE SOUTH OF MADAGASCAR, AND CAUSES A WEAKNESS IN THE ANTICYCLONIC BELT. THE TRAJECTORY THEN TAKES AN INFLECTION IN A WEST-SOUTHWEST DIRECTION, CAUSING THE SYSTEM TO LAND ON THE EAST COAST OF MADAGASCAR.