

WTIO30 FMEE 311240

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/5/20202021

1.A TROPICAL DISTURBANCE 5

2.A POSITION 2020/12/31 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 13.8 S / 83.7 E

(THIRTEEN DECIMAL EIGHT DEGREES SOUTH AND
EIGHTY THREE DECIMAL SEVEN DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 5 KT

3.A DVORAK ANALYSIS: 2.0/2.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 1000 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT

RADIUS OF MAXIMUM WINDS (RMW): 111 KM

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

28 KT NE: 0 SE: 110 SW: 220 NW: 220

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/01/01 00 UTC: 13.8 S / 82.8 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 10 SE: 120 SW: 120 NW: 55

24H: 2021/01/01 12 UTC: 14.0 S / 81.5 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 45 SE: 140 SW: 140 NW: 75

34 KT NE: 35 SE: 85 SW: 45 NW: 65

36H: 2021/01/02 00 UTC: 14.4 S / 79.7 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 45 SE: 175 SW: 155 NW: 85

34 KT NE: 35 SE: 45 SW: 85 NW: 65

48H: 2021/01/02 12 UTC: 14.9 S / 78.3 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 75 SE: 195 SW: 175 NW: 75

34 KT NE: 65 SE: 75 SW: 75 NW: 65

60H: 2021/01/03 00 UTC: 15.5 S / 77.4 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 95 SE: 150 SW: 205 NW: 100

34 KT NE: 85 SE: 65 SW: 100 NW: 75

72H: 2021/01/03 12 UTC: 15.1 S / 77.3 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 120 SE: 45 SW: 100 NW: 140

34 KT NE: 110 SE: 10 SW: 20 NW: 95

2.B LONGER-RANGE OUTLOOK:

96H: 2021/01/04 12 UTC: 16.9 S / 77.7 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 45 SE: 175 SW: 175 NW: 85

34 KT NE: 35 SE: 110 SW: 110 NW: 65

120H: 2021/01/05 12 UTC: 19.6 S / 74.6 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 45 SE: 165 SW: 205 NW: 75

34 KT NE: 35 SE: 155 SW: 95 NW: 65

2.C ADDITIONAL INFORMATION:

T=CI=2.0

THE SHEAR HAS REMAINED VERY PRESENT IN THE 05 SYSTEM. THUS DURING THE LAST 6 HOURS, CONVECTIVE ACTIVITY HAS BEEN MAINTAINED IN THE WESTERN PART OF THE SYSTEM, REVEALING THE CENTER OF THE CIRCULATION RATHER WIDE BUT LESS ELONGATED. BECAUSE OF THE BEGINNING OF THE CONSOLIDATION OF THE CIRCULATION, THE SYSTEM CAN BE CLASSIFIED AS A TROPICAL DISTURBANCE WITH HOWEVER A DVORAK ANALYSIS WHICH REMAINS WELL BELOW THE WIND VALUES OF 30KT MEASURED BY THE ASCENT DATA.

THE TROPICAL DISTURBANCE IS NOW MOVING SLOWLY IN A GENERAL WESTERLY DIRECTION ON THE NORTHERN SIDE OF THE SUBTROPICAL HIGH PRESSURE SYSTEM. THE SYSTEM WILL KEEP THIS WESTERLY TRAJECTORY UNTIL SATURDAY WITH A TENDENCY TO ACCELERATE. THEREAFTER, THE SYSTEM SHOULD INTERACT WITH THE SYSTEM 06 FURTHER WEST. IN THESE CONDITIONS, A FUJIWHARA EFFECT SHOULD OCCUR LEAVING A LARGE UNCERTAINTY IN THE TRACK FORECAST OF THE SYSTEM 05 FOR THE WEEKEND WITH A VERY FLUCTUATING TRACK IN DIRECTION AND SPEED (LOOP OR REVERSAL).

DURING THIS WESTWARD TRACK, THE 05 SYSTEM REMAINS ON THE EDGE OF A STRONG SHEAR WHICH WILL HOWEVER PROGRESSIVELY WEAKEN. THUS IN TERMS OF INTENSITY FORECAST, DURING THE 36-42H, THE WIND SHEAR AND THE DRY AIR INTRUSIONS ASSOCIATED IN THE MIDDLE TROPOSPHERE SHOULD LIMIT ITS INTENSIFICATION. THEREAFTER, A MORE HUMID ENVIRONMENT ACCOMPANIED BY AN INCREASE IN SOUTHWARD DIVERGENCE SHOULD BE ASSOCIATED WITH AN INTENSIFICATION PHASE UP TO THE TROPICAL STORM STAGE, OR EVEN TEMPORARILY TO THE STAGE OF A STRONG TROPICAL STORM DURING THE WEEKEND.

THE NEW GUIDELINES SUGGEST THAT SYSTEM 05 WILL EVENTUALLY OVERTAKE SYSTEM 06. HOWEVER, CONFIDENCE IS LOW THROUGHOUT THIS PART OF THE FORECAST, AS THE TWO SYSTEMS INTERACT WITH EACH OTHER.

