

WTIO30 FMEE 050718

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/10/20202021

1.A TROPICAL DEPRESSION 10

2.A POSITION 2021/02/05 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 12.6 S / 81.3 E

(TWELVE DECIMAL SIX DEGREES SOUTH AND
EIGHTY ONE DECIMAL THREE DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 3 KT

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

4.A CENTRAL PRESSURE: 1002 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 56 KM

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

28 KT NE: 0 SE: 0 SW: 185 NW: 150

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/05 18 UTC: 13.1 S / 81.5 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 45 SE: 155 SW: 285 NW: 165

34 KT NE: 35 SE: 95 SW: 95 NW: 75

24H: 2021/02/06 06 UTC: 13.4 S / 81.8 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 55 SE: 155 SW: 285 NW: 150

34 KT NE: 45 SE: 100 SW: 100 NW: 75

36H: 2021/02/06 18 UTC: 13.8 S / 82.0 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 65 SE: 155 SW: 285 NW: 140

34 KT NE: 55 SE: 110 SW: 110 NW: 75

48H: 2021/02/07 06 UTC: 14.1 S / 82.3 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 75 SE: 155 SW: 285 NW: 130

34 KT NE: 65 SE: 120 SW: 120 NW: 75

60H: 2021/02/07 18 UTC: 14.3 S / 83.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 85 SE: 155 SW: 285 NW: 110
34 KT NE: 75 SE: 120 SW: 130 NW: 75
48 KT NE: 65 SE: 100 SW: 35 NW: 55

72H: 2021/02/08 06 UTC: 14.3 S / 84.0 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 95 SE: 155 SW: 285 NW: 100
34 KT NE: 85 SE: 130 SW: 140 NW: 75
48 KT NE: 75 SE: 100 SW: 35 NW: 65

2.B LONGER-RANGE OUTLOOK:

96H: 2021/02/09 06 UTC: 14.6 S / 86.3 E, VENT MAX= 065 KT, TROPICAL CYCLONE
28 KT NE: 120 SE: 155 SW: 285 NW: 95
34 KT NE: 110 SE: 150 SW: 155 NW: 85
48 KT NE: 85 SE: 110 SW: 65 NW: 75
64 KT NE: 55 SE: 45 SW: 55 NW: 55

120H: 2021/02/10 06 UTC: 15.7 S / 88.0 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 140 SE: 165 SW: 285 NW: 85
34 KT NE: 130 SE: 155 SW: 175 NW: 75

2.C ADDITIONAL INFORMATION:

T=CI=2.0+

FOLLOWED YESTERDAY THROUGH THE BULLETIN FOR CYCLONIC ACTIVITY ISSUED BY THE RSMC, CIRCULATION HAS INCREASED AND SO HAS THE ASSOCIATED CONVECTIVE ACTIVITY OVER THE PAST 24 HOURS. THUS, THE RSMC IS TAKING OVER THE MONITORING OF SYSTEM 10. THE DVORAK ANALYSIS IS LIMITED TO 2.0 DUE TO THE 24-HOUR MONITORING CONSTRAINTS BUT THE LAST ASCAT SWATHS OF 0332UTC ALLOW TO NOTE WINDS OF 30KT IN THE NORTHWEST SEMICIRCLE, LOCALLY PRESENTING VALUES OF 35KT UNDER CONVECTION. FOLLOWING THESE REMARKS, SYSTEM 10 IS CLASSIFIED AS A TROPICAL DEPRESSION AT 30KT WITH A CENTRAL DENSE OVERCAST PATTERN, WITH A CENTER LOCATED IN THE SOUTHEASTERN PART OF THE CONVECTION, WHICH EVOLVES PROGRESSIVELY IN A CURVED BAND.

IN TERMS OF TRACK FORECASTING, SYSTEM 10 IS UNDER THE OPPOSITE INFLUENCE OF TWO ACTION CENTERS: THE SUB-TROPICAL RIDGE IN THE SOUTH-SOUTHWESTERN PART OF THE SYSTEM AND THE EQUATORIAL RIDGE LOCATED IN THE IMMEDIATE NORTH OF THE SYSTEM. UNDER THIS INFLUENCE, THE TRACK WILL BE RATHER ERRATIC OR SLOW IN THE GLOBAL SOUTH-SOUTHEAST DIRECTION DURING THE 36 HOURS. THEREAFTER, WITH THE SHIFT AND WEAKENING OF THE SUBTROPICAL RIDGE, SYSTEM 10 WILL TAKE A TRACK TOWARDS THE WEST AND THEN SOUTH-WEST MORE FRANKLY AS IT ACCELERATES. THERE IS A CERTAIN DIVERGENCE BETWEEN THE GUIDELINES FOR THE LONGEST PERIODS OF TIME WHICH IS RELATED TO THE SYSTEM'S INTENSITY FORECAST. THIS UNCERTAINTY RESULTS IN A RATHER WIDE ZONE WITH A TIME SPAN OF 4 TO 5 DAYS.

AS FAR AS THE INTENSITY FORECAST IS CONCERNED, SYSTEM 10 IS CURRENTLY UNDER CONDITIONS OF MODERATE WIND SHEAR WHICH SHOULD WEAKEN OVER THE NEXT 24 HOURS AND A WELL-DEFINED WET SUPPLY IN ITS NORTHERN PART.

UNDER THESE CONDITIONS, SYSTEM 10 SHOULD BE ABLE TO INTENSIFY STEADILY OVER THE NEXT 3 TO 4 DAYS, BRINGING IT TO THE THRESHOLD OF A TROPICAL CYCLONE. THEREAFTER, THE MORE SOUTHERLY ALTITUDE DYNAMICS SHOULD INDUCE AN INCREASE IN SHEAR AND THE BEGINNING OF DRY AIR INTRUSION, WHICH WILL LIMIT THE INTENSITY OF THE SYSTEM. AS WITH THE TRACK FORECAST, THERE WILL BE A CERTAIN DIVERGENCE BETWEEN THE DIFFERENT GUIDELINES. THE PRESENT INTENSITY FORECAST IS THEREFORE RATHER UNCERTAIN AT 4 TO 5 DAYS.

THIS SYSTEM DOES NOT PRESENT ANY PARTICULAR RISK FOR INHABITED LANDS.