Direction Interrégionale de Météo-France pour l'Océan Indien
50 Boulevard du Chaudron
97490 Sainte-Clotilde
Tél : 0262 92 11 00

WTIO30 FMEE 301914
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 4/5/20232024
1.A TROPICAL DEPRESSION 5

2.A POSITION 2024/01/30 AT 1800 UTC:
WITHIN 20 NM RADIUS OF POINT 19.6 S / 65.6 E
(NINETEEN DECIMAL SIX DEGREES SOUTH AND
SIXTY FIVE DECIMAL SIX DEGREES EAST)
MOVEMENT: SOUTH-EAST 9 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/6 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: 185 SE: 110 SW: 55 NW: 130

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 500 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):
12H: 2024/01/31 06 UTC: 20.4 S / 65.9 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 205 SE: 165 SW: 140 NW: 150
34 KT NE: 100 SE: 130 SW: 95 NW: 95

24H: 2024/01/31 18 UTC: 20.2 S / 65.7 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 215 SE: 195 SW: 150 NW: 155
34 KT NE: 110 SE: 140 SW: 100 NW: 100

36H: 2024/02/01 06 UTC: 20.0 S / 66.4 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 230 SE: 220 SW: 155 NW: 165
34 KT NE: 130 SE: 150 SW: 100 NW: 100

48H: 2024/02/01 18 UTC: 20.6 S / 67.3 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 240 SE: 240 SW: 165 NW: 175
34 KT NE: 140 SE: 155 SW: 110 NW: 110

60H: 2024/02/02 06 UTC: 21.2 S / 68.5 E, VENT MAX= 035 KT, MODERATE TROPICAL

STORM
28 KT NE: 260 SE: 270 SW: 175 NW: 185
34 KT NE: 150 SE: 175 SW: 120 NW: 120

72H: 2024/02/02 18 UTC: 22.6 S / 70.3 E, VENT MAX= 040 KT, POST-TROPICAL DEPRESSION
28 KT NE: 270 SE: 295 SW: 185 NW: 195
34 KT NE: 165 SE: 185 SW: 120 NW: 120

2.B LONGER-RANGE OUTLOOK:
96H: 2024/02/03 18 UTC: 30.1 S / 75.7 E, VENT MAX= 040 KT, POST-TROPICAL DEPRESSION
28 KT NE: 295 SE: 345 SW: 195 NW: 220
34 KT NE: 185 SE: 205 SW: 140 NW: 140

120H: 2024/02/04 18 UTC: 37.4 S / 80.7 E, VENT MAX= 045 KT, POST-TROPICAL DEPRESSION
28 KT NE: 325 SE: 400 SW: 215 NW: 240
34 KT NE: 215 SE: 230 SW: 150 NW: 150

2.C ADDITIONAL INFORMATION:
T=CI=2.5

OVER THE PAST 6 HOURS, CONVECTIVE ACTIVITY HAS INCREASED IN THE EASTERN SECTOR OF THE SYSTEM. CLOUD TOPS HAVE FURTHER COOLED BUT REMAIN AT A DISTANCE FROM THE CENTER, DEFINING A SHEARED CONFIGURATION. THIS GIVES A DVORAK ANAYLSE OF 2.5. THE LAST MICROWAVE PASS AT 1428UTC SHOWS A WEAK LOW-LEVEL CIRCULATION TO THE WEST OF THE CONVECTIVE ACTIVITY, CERTAINLY DUE TO A LACK OF POWER IN THE SOUTHERN PART, LINKED TO THE DISTANT PRESENCE OF ANGGREK. IN THE ABSENCE OF EXPLOITABLE ASCAT SWATH, WINDS ESTIMATED BY DVORAK ANALYSIS LEAVE SYSTEM 05-20232024 AT TROPICAL DEPRESSION STAGE AT 30KT.

TROPICAL DEPRESSION 05-20232024 IS EXPECTED TO MOVE SOUTH-EASTWARDS IN THE SHORT TERM, DUE TO ITS LOCATION TO THE WEST OF A RIDGE OF HIGH PRESSURE GENERATING A LIGHT NORTH-WESTERLY FLOW. ITS MOVEMENT SHOULD BECOME TEMPORARILY CHAOTIC AND SLOWER BETWEEN WEDNESDAY AND THURSDAY, IN A BAROMETRIC NECK BETWEEN TWO RIDGES. FROM LATE THURSDAY ONWARDS, MOST MODELS SUGGEST A CLEAR RESUMPTION OF SOUTHEASTERLY MOVEMENT, LINKED TO THE PASSAGE OF A MID-TROPOSPHERE TROUGH TO THE SOUTH OF THE SYSTEM. THE RSMC TRACK FORECAST IS BASED ON A COMPRESSION BETWEEN THE BEST GUIDANCE AVAILABLE, WHOSE SPREAD IS STILL SIGNIFICANT. THIS LEADS TO A HIGH DEGREE OF UNCERTAINTY IN THE SYSTEM'S TRACK, DUE TO AN ERRATIC TRAJECTORY IN THE SHORT TERM AND UNCERTAINTY IN THE SPEED OF MOVEMENT AT 48-HOUR INTERVALS.

ENVIRONMENTAL CONDITIONS ARE RELATIVELY MIXED OVER THE NEXT 12 TO 18 HOURS, AND ARE CURRENTLY SUBJECT TO A NUMBER OF UNCERTAINTIES, NOTABLY CONCERNING THE QUALITY OF THE LOW-LEVEL CONVERGENCE AND THE PRESENCE OF MODERATE MID-TROPOSPHERE SHEAR. IT SEEMS THAT THE LOW-LEVEL CIRCULATION IS STILL STRUGGLING TO CONSOLIDATE, BUT IF THE DEPRESSION CENTER MANAGES TO POSITION ITSELF BELOW THE ZONE OF ACTIVE

CONVECTION, A MORE OR LESS RAPID DEVELOPMENT OF THE SYSTEM IS POSSIBLE OVER THE NEXT 12 TO 18 HOURS. FROM WEDNESDAY, THE SLOWING OF THE SYSTEM COMBINED WITH AN INCREASE IN WESTERLY SHEAR COULD INJECT DRY AIR OVER THE CORE AND WEAKEN IT BY THURSDAY. THEREAFTER, THE SYSTEM COULD BE TAKEN OVER BY A MID-LATITUDE TROUGH AND GRADUALLY LOSE ITS TROPICAL CHARACTERISTICS, RESULTING IN INCREASED INTENSITY TOWARDS THE END OF ITS LIFE.

IMPACTS ON INHABITED LANDS IN THE NEXT 72 HOURS:

- RODRIGUES: ACCORDING TO THE MOST LIKELY SCENARIO, THE SYSTEM COULD TRANSIT EAST OF RODRIGUES AT TROPICAL STORM STAGE WITH A CENTER REMAINING MORE THAN 200 KM FROM THE ISLAND.
- GIVEN THE SMALL SIZE OF THE SYSTEM, THE AREA OF STRONG WINDS AND HEAVY RAIN SHOULD THEREFORE REMAIN FAR AWAY FROM RODRIGUES. ONLY SOME SQUALLS AND ROUGH SEAS SHOULD AFFECT THE ISLAND IN THE SYSTEM'S PERIPHERY. NEVERTHELESS, GIVEN THE UNCERTAINTY ABOUT THE EXACT TRACK, A CLOSER PASSAGE IS NOT COMPLETELY RULED OUT.
- RESIDENTS OF RODRIGUES ARE INVITED TO FOLLOW THE EVOLUTION OF FORECASTS AND TO COMPLY WITH THE RECOMMENDATIONS OF LOCAL AUTHORITIES.

- NO PARTICULAR IMPACTS EXPECTED FOR MAURITIUS AND REUNION ISLAND.