

WTIO30 FMEE 111825

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/2/20232024

1.A ZONE OF DISTURBED WEATHER 2

2.A POSITION 2024/01/11 AT 1800 UTC:

WITHIN 60 NM RADIUS OF POINT 11.3 S / 60.0 E

(ELEVEN DECIMAL THREE DEGREES SOUTH AND  
SIXTY DECIMAL ZERO DEGREES EAST)

MOVEMENT: SOUTH 9 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 1006 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 25 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

NIL

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: SHALLOW

1.B FORECASTS (WINDS RADII IN KM):

12H: 2024/01/12 06 UTC: 13.0 S / 59.3 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 140 SE: 165 SW: 220 NW: 95

24H: 2024/01/12 18 UTC: 14.3 S / 57.8 E, VENT MAX= 035 KT, MODERATE TROPICAL  
STORM

28 KT NE: 150 SE: 195 SW: 220 NW: 100

34 KT NE: 75 SE: 120 SW: 140 NW: 65

36H: 2024/01/13 06 UTC: 15.7 S / 56.5 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 150 SE: 215 SW: 220 NW: 110

34 KT NE: 85 SE: 130 SW: 140 NW: 75

48H: 2024/01/13 18 UTC: 17.2 S / 55.6 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 230 SW: 220 NW: 120

34 KT NE: 95 SE: 130 SW: 140 NW: 75

48 KT NE: 65 SE: 45 SW: 45 NW: 45

60H: 2024/01/14 06 UTC: 18.2 S / 55.4 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 260 SW: 220 NW: 130

34 KT NE: 95 SE: 140 SW: 140 NW: 85

48 KT NE: 65 SE: 55 SW: 55 NW: 45

64 KT NE: 35 SE: 35 SW: 35 NW: 35

72H: 2024/01/14 18 UTC: 19.0 S / 56.1 E, VENT MAX= 080 KT, TROPICAL CYCLONE  
28 KT NE: 175 SE: 280 SW: 220 NW: 140  
34 KT NE: 100 SE: 150 SW: 140 NW: 85  
48 KT NE: 65 SE: 55 SW: 55 NW: 55  
64 KT NE: 45 SE: 45 SW: 45 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2024/01/15 18 UTC: 20.6 S / 57.6 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE  
28 KT NE: 195 SE: 325 SW: 220 NW: 155  
34 KT NE: 120 SE: 155 SW: 140 NW: 95  
48 KT NE: 65 SE: 55 SW: 65 NW: 55  
64 KT NE: 45 SE: 45 SW: 45 NW: 45

120H: 2024/01/16 18 UTC: 23.3 S / 61.4 E, VENT MAX= 080 KT, TROPICAL CYCLONE  
28 KT NE: 215 SE: 370 SW: 220 NW: 175  
34 KT NE: 130 SE: 175 SW: 140 NW: 95  
48 KT NE: 60 SE: 60 SW: 60 NW: 60  
64 KT NE: 60 SE: 60 SW: 60 NW: 50

2.C ADDITIONAL INFORMATION:

T=CI=NIL

A TECHNICAL INCIDENT LED TO AN UNTIMELY INCREASE IN THE ADVISORY NUMEROTATION. RSMC LA REUNION APOLOGIZES FOR ANY INCONVENIENCE CAUSED.

OVER THE LAST 6 HOURS, CONVECTIVE ACTIVITY ASSOCIATED WITH ZONE OF DISTURBED WEATHER 02 HAS BECOME SLIGHTLY MORE CONCENTRATED NEAR THE ESTIMATED CENTER, PARTICULARLY IN THE WESTERN SECTOR OF THE CIRCULATION. THE 1706UTC ASCAT SWATH ON THE EASTERN PART OF THE SYSTEM SHOWS WINDS OF AROUND 30KT, BUT CONTAMINATED BY PRECIPITATING ACTIVITY. AN ESTIMATE OF 25KT CAN THEREFORE BE MADE FOR THE EASTERN PART OF THE CIRCULATION, IN THE ABSENCE OF A DVORAK ANALYSIS THAT IS STILL TOO EARLY, WITH THE STRUCTURE OF THIS CIRCULATION STILL FAIRLY WIDE.

IN THE SHORT TERM, THE ESTIMATED MOVEMENT OF THE DISTURBED ZONE'S CENTER WILL BE FAIRLY UNCERTAIN WHILE THE VORTEX CONSOLIDATES. HOWEVER, LOCATED ON THE EASTERN EDGE OF A RIDGE OF HIGH PRESSURE CLOSE TO THE EQUATOR, WHICH WILL IMPART A GENERAL SOUTHERLY FLOW, A GENERALLY MERIDIAN TRACK IS EXPECTED. ON FRIDAY, THE TRACK WILL VEER FURTHER SOUTH-WEST TOWARDS THE MASCAREIGNES, AS THE MID-TROPOSPHERE RIDGE CONSOLIDATES FURTHER EAST. AS THE RIDGE SLIDES FURTHER AND FURTHER TO THE NORTHEAST OF THE METEOR, IT SHOULD BEGIN TO TURN SOUTHEAST FROM SUNDAY ONWARDS. ACCORDING TO THE CURRENT RSMC FORECAST, THE SYSTEM SHOULD EVOLVE OVER THE NORTHERN MASCAREIGNES BETWEEN SUNDAY EVENING AND MONDAY MORNING. THIS TIMETABLE WILL BE CLOSELY LINKED TO THE WEAKNESS OF THE RIDGE OF HIGH PRESSURE FURTHER SOUTH, WHICH COULD DELAY THE TURN AND SLOW DOWN THE MOVEMENT OF

THE SYSTEM. THE RSMC FORECAST IS BASED ON A COMPROMISE BETWEEN THE BEST AVAILABLE MODELS, WHOSE DISPERSION REMAINS SIGNIFICANT AT THESE TIMES, LEADING TO UNCERTAINTY OVER THE DISTANCES OF PASSAGE NEAR THE MASCAREIGNES ISLANDS ON MONDAY AND LATER.

WITH NO CHANGE ON SHORT TIME SCALES, THE LOW IS CURRENTLY EVOLVING IN TROPICAL LATITUDES MARKED BY VERY WARM WATERS WITH HIGH ENERGY POTENTIAL. THE SYSTEM BENEFITS FROM GOOD LOW-LEVEL CONVERGENCE ON THE EQUATORIAL COAST, THANKS TO A DYNAMIC MONSOON FLOW. THE ALIZE, TO THE SOUTH OF THE SYSTEM, IS STRUGGLING TO CONVERGE, BUT OVER THE NEXT 24/36 HOURS, WITH THE CONSOLIDATION OF THE MASCAREIGNES ANTICYCLONE TO THE SOUTH, LOW-LEVEL VORTICITY SHOULD INCREASE SIGNIFICANTLY. FROM SATURDAY ONWARDS, ENVIRONMENTAL CONDITIONS WILL BE VERY FAVORABLE FOR SUSTAINED INTENSIFICATION OVER THE NEXT FEW DAYS. THE SYSTEM IS THEREFORE EXPECTED TO REACH THE MODERATE TROPICAL STORM STAGE DURING THE NIGHT OF FRIDAY TO SATURDAY. AS IT APPROACHES THE MASCAREIGNES ARCHIPELAGO (REUNION - MAURITIUS), THE SYSTEM IS SET TO CONTINUE INTENSIFYING, PROBABLY REACHING THE STAGE OF INTENSE TROPICAL CYCLONE, WITH PHASES OF FLUCTUATING INTENSITY.

EXPECTED IMPACTS OVER THE NEXT 72 HOURS:

- WAVES OF THE ORDER OF 4 METERS ARE EXPECTED NORTH OF THE MASCAREIGNES ON SUNDAY, GROWING TO 6 METERS AS THE SYSTEM PASSES OVER THE WEEKEND AND THEN RAPIDLY SUBSIDING. THE HIGHEST WAVES MAY REACH TWICE THESE HEIGHTS.
- HEAVY RAIN CONCENTRATED AROUND THE SYSTEM (COMPACT) SLIDING BETWEEN AGALEGA AND THE SOUTH OF TROMELIN, OF THE ORDER OF 100 TO 200 MM OVER THE NEXT 72 HOURS.
- GRADUAL DETERIORATION IN WEATHER CONDITIONS OVER THE MASCAREIGNES, WITH GALE WINDS FROM SUNDAY AFTERNOON. THE RAINS ASSOCIATED WITH THE SYSTEM COULD BEGIN TO AFFECT MAURITIUS AND REUNION BY LATE SATURDAY.