

WTIO30 FMEE 031242

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 9/2/20242025

1.A MODERATE TROPICAL STORM 2 (ANCHA)

2.A POSITION 2024/10/03 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 12.8 S / 71.0 E

(TWELVE DECIMAL EIGHT DEGREES SOUTH AND
SEVENTY ONE DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST 13 KT

3.A DVORAK ANALYSIS: 2.0/3.0/W 1.5/24 H

4.A CENTRAL PRESSURE: 997 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 150 SE: 230 SW: 205 NW: 85

34 KT NE: 0 SE: 150 SW: 130 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 500 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2024/10/04 00 UTC: 13.7 S / 69.3 E, VENT MAX= 030 KT, FILLING UP

28 KT NE: 0 SE: 205 SW: 165 NW: 0

24H: 2024/10/04 12 UTC: 14.6 S / 67.9 E, VENT MAX= 025 KT, FILLING UP

36H: 2024/10/05 00 UTC: 15.2 S / 67.0 E, VENT MAX= 025 KT, FILLING UP

48H: 2024/10/05 12 UTC: 15.7 S / 65.9 E, VENT MAX= 025 KT, FILLING UP

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

T=2.0 CI=3.0

THE COLLAPSE OF THE CONVECTIVE ACTIVITY STARTED SHORTLY BEFORE 06Z THIS
MORNING, CONTINUED THIS AFTERNOON WITH A FULLY EXPOSED LOW-LEVEL

VORTEX VISIBLE UNDER THE CIRRUS CANOPY (GOOD CONFIDENCE IN THE ANALYZED POSITION). IN THE ABSENCE OF RECENT OBJECTIVE DATA FROM DIFFUSIOMETERS OR RADIOMETERS (LATEST OCEANSAT AT 40 KT AT 0630Z), THE INTENSITY IS ESTIMATED FROM THE LATEST OBJECTIVE AND SUBJECTIVE SATELLITE ESTIMATES AVAILABLE (ADT AT 41 KT, AIDT AND DPRINT AT 30 KT - IN 10-MIN WIND, SUBJECTIVE DVORAK AT 30-40 KT DEPENDING ON THE AGENCIES).

WITH THE DECREASE IN INTENSITY, THE STEERING FLOW HAS DOWNWARD IN THE LOW LEVELS AND THE TRACK HAS SIGNIFICANTLY BEND WESTWARDS WITH SOME INCREASE IN THE FORWARD MOTION. HOWEVER WITH THE ARRIVAL OF A SIGNIFICANT WEAKNESS IN THE SUBTROPICAL RIDGE, THE SYSTEM SHOULD ONCE AGAIN CURVE TOWARDS THE SOUTHWEST AND SLOW DOWN GRADUALLY WITHIN A BAROMETRIC COL SITUATION AT THE END OF THE WEEK.

IN TERMS OF INTENSITY, THE CURRENT WEAKENING SEEMS TO BE LINKED TO AN INTRUSION OF DRY AIR INDUCED BY A STRENGTHENING OF THE MID-TROPOSPHERIC WESTERLY SHEAR. THE DROP IN OCEANIC POTENTIAL COULD ALSO HAVE STRENGTHENED THE IMPACT OF THE DRY AIR INTRUSION. THE SYSTEM SHOULD SOON EVOLVE INTO A FILLING-UP LOW WITHOUT ANY LONG-TERM ORGANIZED CONVECTIVE ACTIVITY. STRONG WINDS IN THE ORDER OF NEAR GALE FORCE WINDS ARE EXPECTED TO CONTINUE TOMORROW DUE TO THE GRADIENT EFFECT IN THE SOUTHERN SEMI-CIRCLE.

NO IMPACT EXPECTED ON INHABITED LANDS.