

WTIO30 FMEE 170013

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 4/11/20232024

1.A MODERATE TROPICAL STORM 11 (IALY)

2.A POSITION 2024/05/17 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 9.1 S / 51.9 E

(NINE DECIMAL ONE DEGREES SOUTH AND

FIFTY ONE DECIMAL NINE DEGREES EAST)

MOVEMENT: WEST 4 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 999 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 130 SE: 205 SW: 240 NW: 75

34 KT NE: 0 SE: 110 SW: 130 NW: 0

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

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2024/05/17 12 UTC: 9.0 S / 51.1 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

28 KT NE: 140 SE: 230 SW: 250 NW: 95

34 KT NE: 85 SE: 120 SW: 150 NW: 0

24H: 2024/05/18 00 UTC: 8.9 S / 50.2 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

28 KT NE: 150 SE: 250 SW: 260 NW: 95

34 KT NE: 95 SE: 130 SW: 150 NW: 0

36H: 2024/05/18 12 UTC: 9.2 S / 49.3 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 260 SW: 260 NW: 100

34 KT NE: 95 SE: 130 SW: 155 NW: 75

48 KT NE: 65 SE: 75 SW: 65 NW: 55

48H: 2024/05/19 00 UTC: 9.1 S / 48.6 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 280 SW: 270 NW: 100

34 KT NE: 100 SE: 140 SW: 155 NW: 75

48 KT NE: 65 SE: 75 SW: 75 NW: 55

60H: 2024/05/19 12 UTC: 8.8 S / 48.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 165 SE: 285 SW: 280 NW: 100
34 KT NE: 100 SE: 140 SW: 165 NW: 75
48 KT NE: 65 SE: 75 SW: 75 NW: 55

72H: 2024/05/20 00 UTC: 8.4 S / 48.5 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 175 SE: 305 SW: 280 NW: 110
34 KT NE: 110 SE: 150 SW: 165 NW: 75
48 KT NE: 65 SE: 75 SW: 85 NW: 55

2.B LONGER-RANGE OUTLOOK:

96H: 2024/05/21 00 UTC: 7.5 S / 48.9 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 185 SE: 335 SW: 285 NW: 120
34 KT NE: 120 SE: 155 SW: 175 NW: 0

120H: 2024/05/22 00 UTC: 5.7 S / 48.6 E, VENT MAX= 020 KT, DISSIPATING

2.C ADDITIONAL INFORMATION:

T=CI=2.5-

OVER THE PAST 6 HOURS, TROPICAL STORM IALY HAS GRADUALLY SHIFTED FROM A BAND CONFIGURATION TO A SHEARED PATTERN, WITH THE CENTER ESTIMATED TO BE AT THE NORTHEASTERN EDGE OF THE CONVECTION. AT 18Z, THE SHEAR ANALYZED WAS 22KT FROM THE NORTHEAST (CIMSS ANALYSIS). IN THE ABSENCE OF OTHER AVAILABLE DATA, IALY IS MAINTAINED AS A MODERATE TROPICAL STORM WITH MAXIMUM WINDS OF AROUND 40KT.

IN TERMS OF TRACK, LITTLE CHANGE. IALY IS MOVING WESTWARDS ALONG THE NORTHERN EDGE OF THE SUBTROPICAL RIDGE. THIS MOVEMENT IS LIKELY TO REMAIN SLOW DUE TO THE WEAKENING OF THIS RIDGE OVER THE NEXT FEW DAYS AND COMPETITION WITH A NEAR-EQUATORIAL RIDGE. THIS RIDGE, LOCATED TOWARDS SOMALIA, WILL BECOME ALL THE MORE INFLUENTIAL AS THE SYSTEM INTENSIFIES, WHICH COULD LEAD TO A QUASI-STATIONARY PHASE. THE FORECAST TRACK THUS PASSES CLOSE TO THE FARQUHAR ATOLL IN THE SHORT TERM, BEFORE BECOMING HIGHLY UNCERTAIN FROM THIS WEEKEND ONWARDS, AS ILLUSTRATED BY THE STRONG DISPERSION IN THE NUMERICAL GUIDANCE. ON SATURDAY, WITH THE RIDGE OF HIGH PRESSURE WEAKENING SLIGHTLY, THE SYSTEM COULD TEMPORARILY TURN SOUTHEAST BEFORE HEADING BACK NORTH. AT THE END OF THE WEEKEND OR BEGINNING OF NEXT WEEK, THE SYSTEM COULD TURN NORTH TO NORTHEAST UNDER THE COMBINED EFFECT OF THE NEAR-EQUATORIAL RIDGE AND A NEW SUBTROPICAL RIDGE OVER SOUTHERN AFRICA.

IN TERMS OF INTENSITY, ENVIRONMENTAL CONDITIONS ARE CURRENTLY MIXED BUT IMPROVING, WITH GOOD UPPER-LEVEL DIVERGENCE, WARM SURFACE WATERS CLOSE TO 29C, GOOD CONVERGENCE ON THE SYSTEM'S SOUTH SIDE, BUT MODERATE NORTHEASTERLY SHEAR AND POOR CONVERGENCE ON THE SYSTEM'S NORTH SIDE. WIND SHEAR SHOULD WEAKEN BY THE WEEKEND, ALLOWING FOR GRADUAL SYMMETRIZATION AND INTENSIFICATION POSSIBLY UP TO SEVERE TROPICAL STORM STAGE THIS WEEKEND. THE SPEED OF INTENSIFICATION REMAINS HIGHLY UNCERTAIN, HOWEVER, AND IS REFLECTED IN THE DISPERSION

BETWEEN NUMERICAL MODELS, DEPENDING ON THE SYSTEM'S ABILITY TO MAINTAIN A SUFFICIENTLY COMPACT AND SYMMETRICAL CENTER DESPITE POSSIBLE MID LEVEL DRY AIR DISRUPTION. THE POTENTIAL FOR INTENSIFICATION APPEARS TO BE GREATEST OVER THE WEEKEND, BUT COULD BE LIMITED BY THE PERSISTENCE OF A WEAK TO MODERATE SHEAR STRESS OR POSSIBLY BY MORE OR LESS UPWELLING DUE TO ITS QUASI-STATIONNARY MOTION. EARLY NEXT WEEK, NORTHEASTERLY SHEAR COULD INCREASE AGAIN AND BECOME MORE DISRUPTIVE AS THE SYSTEM MOVES IN ALMOST THE OPPOSITE DIRECTION OF THE SHEAR, LEADING TO MORE OR LESS RAPID WEAKENING BY TUESDAY.

IMPACTS ON INHABITED LAND OVER THE NEXT 72 HOURS :

OUTER SEYCHELLES ISLANDS (FARQUHAR ATOLL):

- RAINFALL TOTALS OF 150 TO 250 MM BY SUNDAY
- GALES LIKELY TODAY UP TO 18UTC.
- WAVES OF 4-5M UNTIL FRIDAY NIGHT.

MADAGASCAR (ANTSIRANANA PROVINCE) :

- RAINFALL TOTALS OF 100-150MM IN 24HRS ON SATURDAY OVER EASTERN ANTSIRANANA PROVINCE (SAVA REGION).
- POSSIBLE 4M WAVES ON THE NORTHEASTERN TIP OF MADAGASCAR TODAY.