

WTIO30 FMEE 170637 RSMC / TROPICAL CYCLONE CENTER / LA REUNION TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 42/5/20242025 1.A POST-TROPICAL DEPRESSION 5 (DIKELEDI)

2.A POSITION 2025/01/17 AT 0600 UTC: WITHIN 20 NM RADIUS OF POINT 33.8 S / 54.6 E (THIRTY THREE DECIMAL EIGHT DEGREES SOUTH AND FIFTY FOUR DECIMAL SIX DEGREES EAST) MOVEMENT: EAST-SOUTH-EAST 27 KT

3.A DVORAK ANALYSIS: NIL 4.A CENTRAL PRESSURE: 983 HPA 5.A MAX AVERAGE WIND SPEED (10 MN): 60 KT RADIUS OF MAXIMUM WINDS (RMW): 74 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM): 28 KT NE: 295 SE: 165 SW: 140 NW: 270

34 KT NE: 215 SE: 120 SW: 110 NW: 165 48 KT NE: 130 SE: 0 SW: 0 NW: 120

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 500 KM 8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2025/01/17 18 UTC: 34.7 S / 61.5 E, VENT MAX= 050 KT, POST-TROPICAL

DEPRESSION

28 KT NE: 285 SE: 165 SW: 205 NW: 270 34 KT NE: 195 SE: 100 SW: 95 NW: 150 48 KT NE: 85 SE: 0 SW: 0 NW: 75

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24H: 2025/01/18 06 UTC: 34.6 S / 67.7 E, VENT MAX= 040 KT, EXTRATROPICAL

**DEPRESSION** 

28 KT NE: 270 SE: 0 SW: 205 NW: 270 34 KT NE: 165 SE: 0 SW: 85 NW: 120

36H: 2025/01/18 18 UTC: 34.1 S / 73.8 E, VENT MAX= 030 KT, EXTRATROPICAL

**DEPRESSION** 

28 KT NE: 155 SE: 0 SW: 150 NW: 165

48H: 2025/01/19 06 UTC: 34.1 S / 78.6 E, VENT MAX= 030 KT, EXTRATROPICAL

**DEPRESSION** 

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

60H: 2025/01/19 18 UTC: 34.1 S / 80.7 E, VENT MAX= 025 KT, EXTRATROPICAL

## **DEPRESSION**

72H: 2025/01/20 06 UTC: 34.1 S / 82.5 E, VENT MAX= 025 KT, EXTRATROPICAL DEPRESSION

2.B LONGER-RANGE OUTLOOK: NIL

## 2.C ADDITIONAL INFORMATION:

OVER THE PAST 6 HOURS, CONVECTIVE ACTIVITY HAS CONTINUED TO DRIFT AWAY FROM THE CENTER, WITH WESTERLY SHEAR EXCEEDING 30KT ACCORDING TO CIMSS. THE CENTER IS PARTIALLY VISIBLE ON SATELLITE IMAGES. CLOUD TOPS CONTINUED TO WARM AS SST DROPPED BELOW 23C. 0229Z SMOS DATA AND 0442Z CALIBRATED ASCAT DATA GAVE 65KT AND 60KT RESPECTIVELY. IN LINE WITH THESE ASSESSMENTS, DIKELEDI IS ANALYZED AS A POST-TROPICAL DEPRESSION 60KT AT 6Z.

THE SYSTEM'S MOVEMENT IS DRIVEN BY A RAPID WEST-NORTH-WESTERLY THEN WESTERLY FLOW, ALONGSIDE A MID-LATITUDE TROUGH TO THE SOUTH AND A SUBTROPICAL RIDGE TO THE NORTHEAST THEN NORTH. THE RSMC FORECAST IS A COMPROMISE BETWEEN THE LATEST IFS AND GFS RUNS.

THE WEAKENING AND COLLAPSE OF THE SYSTEM WILL CONTINUE OVER THE NEXT FEW DAYS UNDER THE EFFECT OF SHEAR AND THE DROP IN OCEANIC POTENTIAL AT A LATITUDE CLOSE TO 35S. THE INCREASE IN WESTERLY SHEAR WILL ACCENTUATE MID-TROPOSPHERIC DRY AIR INTRUSIONS INTO THE INNER CORE THIS FRIDAY. AT THE SAME TIME, THE OCEANIC POTENTIAL WILL CONTINUE TO DECREASE, WITH SSTS BELOW 23C, WHICH WILL STRONGLY DAMPEN CONVECTION. DIKELEDI SHOULD THEREFORE BECOME AN EXTRATROPICAL SYSTEM TOMORROW SATURDAY, AND CONTINUE TO WEAKEN THEREAFTER. THE SYSTEM SHOULD FILL BY SUNDAY OR MONDAY WITHIN A WEAK SURFACE TROUGH.

THE SYSTEM NO LONGER POSES ANY THREAT TO INHABITED LAND