

WTIO30 FMEE 090053

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 9/5/20242025

1.A MODERATE TROPICAL STORM 5 (DIKELEDI)

2.A POSITION 2025/01/09 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 15.0 S / 66.4 E

(FIFTEEN DECIMAL ZERO DEGREES SOUTH AND
SIXTY SIX DECIMAL FOUR DEGREES EAST)

MOVEMENT: WEST 19 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 1001 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: 0 SE: 345 SW: 345 NW: 0

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2025/01/09 12 UTC: 14.9 S / 62.9 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 100 SE: 325 SW: 305 NW: 0

34 KT NE: 75 SE: 120 SW: 175 NW: 0

24H: 2025/01/10 00 UTC: 14.8 S / 59.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 110 SE: 325 SW: 305 NW: 85

34 KT NE: 85 SE: 130 SW: 175 NW: 55

48 KT NE: 65 SE: 55 SW: 55 NW: 35

36H: 2025/01/10 12 UTC: 14.4 S / 56.0 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 120 SE: 315 SW: 305 NW: 95

34 KT NE: 95 SE: 140 SW: 175 NW: 65

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

48H: 2025/01/11 00 UTC: 13.7 S / 52.9 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 130 SE: 305 SW: 305 NW: 95

34 KT NE: 100 SE: 150 SW: 175 NW: 65

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

64 KT NE: 35 SE: 35 SW: 45 NW: 35

60H: 2025/01/11 12 UTC: 13.2 S / 50.7 E, VENT MAX= 070 KT, TROPICAL CYCLONE
28 KT NE: 140 SE: 305 SW: 305 NW: 95
34 KT NE: 110 SE: 155 SW: 175 NW: 65
48 KT NE: 65 SE: 65 SW: 75 NW: 45
64 KT NE: 35 SE: 35 SW: 45 NW: 35

72H: 2025/01/12 00 UTC: 13.8 S / 48.3 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM
28 KT NE: 150 SE: 295 SW: 305 NW: 85
34 KT NE: 120 SE: 165 SW: 175 NW: 0

2.B LONGER-RANGE OUTLOOK:

96H: 2025/01/13 00 UTC: 16.4 S / 44.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 165 SE: 285 SW: 305 NW: 110
34 KT NE: 140 SE: 185 SW: 175 NW: 75
48 KT NE: 65 SE: 75 SW: 85 NW: 55

120H: 2025/01/14 00 UTC: 19.7 S / 43.2 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 185 SE: 280 SW: 305 NW: 140
34 KT NE: 155 SE: 205 SW: 175 NW: 75
48 KT NE: 60 SE: 80 SW: 80 NW: 60

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

OVER THE LAST 6 HOURS, CONVECTION HAS EVOLVED LITTLE UP TO 21UTC, THEN CERTAINLY UNDER THE EFFECT OF CONVERGENCE IN THE NORTH-WESTERN SECTOR, CONVECTIVE ACTIVITY HAS GREATLY STRENGTHENED, LEAVING AN ESTIMATED CENTER IN A MUCH MORE PRESENT CONVECTIVE MASS. THE CURVED BAND CONFIGURATION IS THUS BETTER DEFINED, WITH A WINDING THAT NOW JUSTIFIES A CI OF 2.5+. SYSTEM 05 THUS PASSES THE MODERATE TROPICAL STORM THRESHOLD, WITH MAXIMUM WINDS ESTIMATED AT 35KT. UNFORTUNATELY, THERE IS NO SCATTEROMETER DATA TO VALIDATE THIS ESTIMATE MADE BY THE DVORAK ANALYSIS, AND THE F18 MICROWAVE PASS AT 2320UTC REMAINS DIFFICULT TO EXPLOIT. AT 00UTC, THE MAURITIAN METEOROLOGICAL SERVICE NAMED DIKELEDI.

LITTLE CHANGE IN FORECAST TRACK OVER THE NEXT 72 HOURS. THE SYSTEM IS FORECAST TO MOVE WESTWARDS, GUIDED ALONG THE NORTHERN EDGE OF A SUBTROPICAL RIDGE CENTERED ON THE BASIN. ON THIS SLIGHTLY MORE NORTHERLY TRACK THAN BEFORE, THE SYSTEM SHOULD PASS NORTH OF SAINT-BRANDON AND TROMELIN BY THURSDAY/FRIDAY. THE MODELS ARE IN FAIRLY GOOD AGREEMENT ON THIS TRAJECTORY RIGHT UP TO THE LANDFALL SCHEDULED FOR LATE SATURDAY, ALTHOUGH THERE IS A SLIGHT TENDENCY FOR THE SYSTEM TO SLOW DOWN BEFORE THE LANDFALL. UNCERTAINTY OVER THE TRACK IS THEREFORE GROWING FROM THESE 72-HOUR INTERVALS. THE RSMC FORECAST SUGGESTS THAT IT WILL RE-EMERGE IN THE MOZAMBIQUE CHANNEL ON SUNDAY, CURVING ITS TRACK TO THE SOUTH-WEST AS A RESULT OF THE RETREAT OF THE RIDGE OF HIGH PRESSURE OVER THE BASIN. AT THESE TIMES, CONFIDENCE IN THE TRACK IS REDUCED BY UNCERTAINTY OVER THE EXTENT OF THE RIDGE'S EASTWARD RETREAT, RESULTING IN GREATER VARIABILITY IN THE

RUNS FOR SOME MODELS. THE RSMC FORECAST IS BASED ON A COMPROMISE BETWEEN THE BEST GUIDANCES, BUT OPTING FOR A TRACK THAT TAKES THE SYSTEM CLOSER TO THE MALAGASY COAST THAN PREVIOUSLY.

IN TERMS OF INTENSITY FORECASTS, THERE IS NO OVERALL CONSENSUS. ON THE WHOLE, THE RSMC INTENSITY FORECAST REMAINS SLIGHTLY HIGHER THAN THE MAJORITY OF GUIDELINES. ENVIRONMENTAL CONDITIONS SHOULD GRADUALLY IMPROVE OVER THE NEXT FEW HOURS (WITH DRY AMBIENT AIR NEAR THE CENTER, WHICH IS CURRENTLY FADING), ALLOWING A PHASE OF REGULAR INTENSIFICATION TO SET IN OVER THE NEXT 24-36 HOURS. INTENSIFICATION WILL THEN BECOME MORE MARKED, ENABLING THE SYSTEM TO REACH THE TROPICAL CYCLONE THRESHOLD ON FRIDAY AND REACH THE EAST COAST OF THE PROVINCE OF ANTSIRANANA AT A MATURE STAGE LATE SATURDAY. THE SYSTEM IS EXPECTED TO MOVE INLAND, WEAKENING, BUT RETAINING ITS TROPICAL CHARACTERISTICS, BEFORE EXITING INTO THE MOZAMBIQUE CHANNEL ON SUNDAY. BACK IN WARM WATERS IN FAVORABLE CONDITIONS, BUT RELATIVELY CLOSE TO THE MALAGASY COAST, THE SYSTEM SHOULD INTENSIFY AGAIN, BUT GRADUALLY. HOWEVER, THERE IS CONSIDERABLE UNCERTAINTY AS TO THE MAXIMUM INTENSIFICATION OF THE SYSTEM, AS THERE IS NO CONSENSUS BETWEEN THE VARIOUS MODELS, WITH THE CURRENT RSMC FORECAST OPTING FOR A HIGHER INTENSITY THAN MOST OF THE LATEST MODELS. IN THE CASE OF A LONGER TRANSIT OVER LAND, THE INTENSITY OF THE SYSTEM WOULD BE MUCH LOWER.

IMPACTS ON INHABITED LAND OVER THE NEXT 72 HOURS :

SAINT BRANDON :

- GALE FORCE WIND PROBABLE THURSDAY NIGHT TO FRIDAY.
- VERY ROUGH SEAS PROBABLE WITH WAVES OF 4 TO 6M BETWEEN THURSDAY AND FRIDAY.
- IMPROVEMENT DURING THE DAY ON FRIDAY.

TROMELIN :

- GALE FORCE WINDS PROBABLE ON FRIDAY.
- VERY ROUGH SEAS PROBABLE WITH WAVES 4 TO 6M FRIDAY AND SATURDAY.
- IMPROVEMENT OVERNIGHT FRIDAY TO SATURDAY.

MADAGASCAR - ANTSIRANANA AND MAHAJANGA PROVINCES

- GALE FORCE WINDS LIKELY SATURDAY, STORM FORCE WINDS AND HURRICANE POSSIBLE NEAR THE CENTER MAINLY OVER ANTSIRANANA PROVINCE.
- VERY HEAVY SEAS SATURDAY AFTERNOON AND EVENING, WITH WAVES BETWEEN 4 AND 6 METRES BETWEEN CAP D'AMBRE AND CAP EST.
- HEAVY RAIN POSSIBLE FROM SATURDAY ALONG THE EAST COAST OF ANTSIRANANA PROVINCE AND CONTINUING ON SUNDAY OVER MAHAJANGA PROVINCE.