

WTIO30 FMEE 140706

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 30/5/20242025

1.A SEVERE TROPICAL STORM 5 (DIKELEDI)

2.A POSITION 2025/01/14 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 16.8 S / 39.8 E

(SIXTEEN DECIMAL EIGHT DEGREES SOUTH AND
THIRTY NINE DECIMAL EIGHT DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-WEST 7 KT

3.A DVORAK ANALYSIS: 4.0/4.0/S 0.0/0 H

4.A CENTRAL PRESSURE: 990 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 85 SE: 120 SW: 85 NW: 85

34 KT NE: 30 SE: 55 SW: 55 NW: 55

48 KT NE: 0 SE: 35 SW: 40 NW: 35

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2025/01/14 18 UTC: 18.9 S / 40.1 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 220 SE: 195 SW: 120 NW: 130

34 KT NE: 130 SE: 110 SW: 95 NW: 85

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

64 KT NE: 35 SE: 30 SW: 30 NW: 30

24H: 2025/01/15 06 UTC: 21.4 S / 40.9 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 295 SE: 270 SW: 130 NW: 165

34 KT NE: 165 SE: 155 SW: 100 NW: 110

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

64 KT NE: 35 SE: 35 SW: 35 NW: 30

36H: 2025/01/15 18 UTC: 24.3 S / 41.9 E, VENT MAX= 110 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 250 SE: 195 SW: 130 NW: 185

34 KT NE: 130 SE: 100 SW: 100 NW: 120

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

64 KT NE: 30 SE: 35 SW: 35 NW: 35

48H: 2025/01/16 06 UTC: 27.1 S / 43.6 E, VENT MAX= 110 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 250 SE: 155 SW: 120 NW: 165

34 KT NE: 130 SE: 85 SW: 95 NW: 95

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

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

60H: 2025/01/16 18 UTC: 29.4 S / 46.6 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 240 SE: 150 SW: 120 NW: 155

34 KT NE: 120 SE: 85 SW: 95 NW: 85

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

64 KT NE: 35 SE: 35 SW: 35 NW: 30

72H: 2025/01/17 06 UTC: 31.4 S / 50.9 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 280 SE: 150 SW: 140 NW: 215

34 KT NE: 130 SE: 75 SW: 100 NW: 120

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

64 KT NE: 35 SE: 30 SW: 35 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2025/01/18 06 UTC: 32.3 S / 59.4 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 260 SE: 175 SW: 165 NW: 220

34 KT NE: 120 SE: 95 SW: 120 NW: 130

48 KT NE: 55 SE: 45 SW: 35 NW: 55

120H: 2025/01/19 06 UTC: 33.0 S / 65.0 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 175 SE: 130 SW: 0 NW: 150

34 KT NE: 75 SE: 85 SW: 0 NW: 65

2.C ADDITIONAL INFORMATION:

T=CI=4.0

IN THE LAST 3 HOURS, DIKELEDI TRANSITS AGAIN OVER THE SEA. THE CLOUD PATTERN HAS BEEN MAINTAINED WITH A CURVED BAND STRUCTURE MAINLY OVER LAND. A BAND DISSOCIATED FROM THE SYSTEM IS PRESENT IN THE EASTERN SECTOR WITHOUT BEING ASSOCIATED WITH DIKELEDI. IN THIS CONTEXT, A DVORAK ANALYSIS CAN AGAIN BE MADE WITH A T OF 4.0 FAIRLY CLOSE TO THE OBJECTIVE ANALYSES, LEAVING AN ESTIMATE OF MEAN MAXIMUM WINDS OF 55KT. DIKELEDI IS THEREFORE CLASSIFIED AS A STRONG TROPICAL STORM AT 06UTC. THERE IS A SLIGHT MISMATCH BETWEEN LOW-LEVEL AND UPPER-LEVEL CIRCULATION.

THE RIDGE OF MID-TROPOSPHERE LOCATED OVER THE BASIN DEFINES THE STEERING FLOW AT DIKELEDI, IMPOSING A SOUTHERLY DIRECTION ON ITS WESTERN EDGE. ON WEDNESDAY, THE SYSTEM COULD APPROACH THE MALAGASY COAST, GUIDED BY THE UPPER-LEVEL NORTHWESTERLY FLOW SET UP BY THE MID-TROPOSPHERE SUBTROPICAL RIDGE AND A TROUGH TO THE SOUTH. THE VAST MAJORITY OF MODELS HAVE THE SYSTEM TRANSITING OVER THE SEA, AND FOR THE MOMENT DO NOT ANTICIPATE ANY POSSIBLE LANDFALL ON THE SOUTHERN

TIP OF MADAGASCAR. THE DISPERSION OF THE MODELS TRANSLATES INTO DISPLACEMENT SPEEDS THAT MODIFY THE CHRONOLOGY BY +/- 6 HOURS. THE RSMC FORECAST IS A COMPROMISE BETWEEN THE DIFFERENT GUIDANCE AVAILABLE AND, IN THIS CONTEXT, DIKELEDI SHOULD EVACUATE TOWARDS MORE SOUTHERLY LATITUDES BY THURSDAY DURING THE DAY, NO LONGER PRESENTING A DANGER TO INHABITED LAND.

IN TERMS OF INTENSITY, DIKELEDI WILL EMERGE FROM THE SEA WITH A STRONG OCEANIC POTENTIAL, COUPLED WITH GOOD ENVIRONMENTAL CONDITIONS AND NOTABLY A WEAKENING ALTITUDE CONSTRAINT. IT SHOULD THEN GRADUALLY INTENSIFY OVER TIME, WITH MORE OR LESS MARKED PHASES OF INTENSIFICATION (EFFECT OF A POSSIBLE REPLACEMENT OF THE EYEWALL), TO PROBABLY REACH THE STAGE OF AN INTENSE TROPICAL CYCLONE TOMORROW. THEREAFTER, AS IT PLUNGES TOWARDS SOUTHERN LATITUDES, DIKELEDI SHOULD GRADUALLY TAKE ON AN ASYMMETRICAL STRUCTURE, WEAKENING STEADILY BUT RETAINING ITS TROPICAL CHARACTERISTICS OVER THE CURRENT 120-HOUR FORECAST PERIOD.

IMPACTS ON INHABITED LAND OVER THE NEXT 72 HOURS :

MOZAMBIQUE (NAMPULA / ZAMBEZIA PROVINCE COASTLINE):

- STORM FORCE UNTIL TUESDAY MORNING.
- RAINFALL TOTALS OF 100-150MM IN 24H, RISING TO 200-250MM LOCALLY ALONG THE COAST.
- WAVES OF 4 TO 6M UNTIL TUESDAY MORNING. SURGE OF AROUND 1M50 TO 2M SOUTH OF THE POINT OF IMPACT, BETWEEN THE TOWNS OF QUINGA AND NORTHERN ANGOCHE.

JUAN DE NOVA TUESDAY:

- CUMULATIVE RAINFALL OF 100MM IN 24H, LINKED TO PRECIPITATING BANDS DISSOCIATED FROM THE SYSTEM
- VERY POOR SEA STATE WITH AVERAGE WAVES OVER 4M AND MAXIMUM WAVES UP TO 8M.

EUROPA FROM WEDNESDAY :

- GALE TO STORM LIKELY
- TOTAL OF 100-150MM IN 24H
- VERY BAD SEA STATE WITH AVERAGE WAVES OVER 4M AND MAXIMUM WAVES UP TO 8M.

SOUTH-WEST MADAGASCAR (TOLIARA PROVINCE) - FROM WEDNESDAY:

- GALE FORCE WINDS LIKELY
- VERY POOR SEA STATE WITH AVERAGE WAVES OVER 4M AND MAXIMUM WAVES UP TO 8M.
- RESIDENTS ARE INVITED TO FOLLOW THE EVOLUTION OF THE SYSTEM.