

WTIO30 FMEE 130651

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 26/5/20242025

1.A TROPICAL CYCLONE 5 (DIKELEDI)

2.A POSITION 2025/01/13 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 15.2 S / 41.5 E
(FIFTEEN DECIMAL TWO DEGREES SOUTH AND
FORTY ONE DECIMAL FIVE DEGREES EAST)

MOVEMENT: SOUTH-WEST 9 KT

3.A DVORAK ANALYSIS: 4.5/4.5/D 0.5/6 H

4.A CENTRAL PRESSURE: 979 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 65 KT
RADIUS OF MAXIMUM WINDS (RMW): 17 KM

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

28 KT NE: 100 SE: 100 SW: 95 NW: 120

34 KT NE: 75 SE: 45 SW: 45 NW: 85

48 KT NE: 55 SE: 35 SW: 40 NW: 55

64 KT NE: 30 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2025/01/13 18 UTC: 15.9 S / 40.5 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 130 SE: 150 SW: 155 NW: 110

34 KT NE: 85 SE: 95 SW: 95 NW: 75

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

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

24H: 2025/01/14 06 UTC: 17.3 S / 39.8 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 140 SE: 165 SW: 155 NW: 120

34 KT NE: 85 SE: 100 SW: 100 NW: 75

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

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

36H: 2025/01/14 18 UTC: 19.1 S / 40.0 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 150 SE: 185 SW: 165 NW: 130

34 KT NE: 95 SE: 110 SW: 100 NW: 85

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

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

48H: 2025/01/15 06 UTC: 21.4 S / 40.4 E, VENT MAX= 105 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 155 SE: 215 SW: 165 NW: 140

34 KT NE: 100 SE: 120 SW: 110 NW: 85

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

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

60H: 2025/01/15 18 UTC: 24.2 S / 41.3 E, VENT MAX= 115 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 175 SE: 230 SW: 175 NW: 140

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

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

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

72H: 2025/01/16 06 UTC: 26.5 S / 42.9 E, VENT MAX= 115 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 185 SE: 250 SW: 175 NW: 150

34 KT NE: 120 SE: 140 SW: 110 NW: 95

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

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

2.B LONGER-RANGE OUTLOOK:

96H: 2025/01/17 06 UTC: 30.9 S / 48.5 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 205 SE: 295 SW: 185 NW: 165

34 KT NE: 130 SE: 155 SW: 120 NW: 110

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

64 KT NE: 65 SE: 55 SW: 55 NW: 55

120H: 2025/01/18 06 UTC: 33.5 S / 57.0 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 230 SE: 335 SW: 195 NW: 175

34 KT NE: 150 SE: 175 SW: 130 NW: 120

48 KT NE: 70 SE: 70 SW: 80 NW: 70

64 KT NE: 60 SE: 60 SW: 60 NW: 60

2.C ADDITIONAL INFORMATION:

T=CI=4.5-

OVER THE PAST 6 HOURS, CONVECTIVE ACTIVITY HAS CONTINUED NORTH OF THE LOW-LEVEL CENTER, AS SHOWN BY THE MICROWAVE PASS SSMIS-F17 AT 0338Z. THE LATTER SHOWS A WELL-FORMED EYE AT 85GHZ, SHOWING SOLID INTERNAL ORGANIZATION, WITH CONVECTION MUCH MORE INTENSE IN THE NORTHERN SEMICIRCLE. THE INTENSITY ESTIMATE IS BASED ON THIS ANALYSIS, AND ON A BLEND OF OBJECTIVE AND SUBJECTIVE GUIDANCE, PUTTING DIKEDELI AT THE MINIMUM STAGE OF A TROPICAL CYCLONE. HOWEVER, THIS VALUE APPEARS TO BE SLIGHTLY OVERESTIMATED IN VIEW OF THE ASCAT-B PASS AT 0559Z, WHICH FELL SHORTLY AFTER ANALISIS TIME. IN FACT, THE ASCAT GAVE A DEBIASED MAXIMUM INTENSITY CLOSER TO 60KT. THIS INFORMATION (POSITION / WIND EXTENSIONS / INTENSITY) WILL BE UPDATED SHORTLY IN THE BESTRACK TRACK.

IN TERMS OF TRACK, THE SYSTEM IS EXPECTED TO APPROACH THE MOZAMBICAN COAST TODAY ON A WEST-SOUTH-WEST TRACK. THE CURRENT FORECAST DOES

NOT FORESEE A LANDFALL OVER THE PROVINCE OF NAMPULA, BUT THIS OPTION IS NOT TOTALLY EXCLUDED, GIVEN THE DISPERSION OF GUIDANCE AT +12/18H. FROM TUESDAY, DIKEDELI SHOULD CURVE ITS TRACK TEMPORARILY TO THE SOUTH AND THEN TO THE SOUTH-SOUTHEAST, CARRIED BY THE NORTHERLY FLOW ALONG THE WESTERN EDGE OF THE RIDGE OF HIGH PRESSURE OVER THE BASIN. FROM WEDNESDAY/THURSDAY, THE SYSTEM COULD APPROACH THE MALAGASY COAST, GUIDED BY THE UPPER-LEVEL NORTHWESTERLY FLOW SET UP BY THE MID SUBTROPICAL RIDGE AND A DISTANT UPPER TROUGH TO THE SOUTH. GUIDANCE REMAINS WIDELY DISPERSED AT THESE SCALES, BUT THE VAST MAJORITY OF ENSEMBLE MEMBERS ARE FORECASTING THE SYSTEM TO TRANSIT THROUGH THE CHANNEL, AND ARE NOT CURRENTLY FORECASTING ANY LANDFALL ON THE SOUTHERN TIP OF MADAGASCAR. THE RSMC FORECAST IS A COMPROMISE BETWEEN THE DIFFERENT GUIDANCE AVAILABLE.

IN TERMS OF INTENSITY, WITH VERY GOOD OCEAN HEAT POTENTIAL DESPITE PERSISTENT MODERATE UPPER VWS, DIKEDELI SHOULD BENEFIT FROM FAVORABLE CONDITIONS TO CONTINUE INTENSIFYING AS THE DAYS GO BY. HOWEVER, THE OHC IS SET TO DECREASE PROGRESSIVELY FROM TOMORROW ONWARDS, ALTHOUGH ATMOSPHERIC CONDITIONS ARE EXPECTED TO IMPROVE SIGNIFICANTLY, WHICH COULD BRING IT TO THE STAGE OF AN INTENSE TROPICAL CYCLONE. HOWEVER, IF IT INTERACTS WITH THE AFRICAN COAST, INTENSIFICATION WILL BE SLOWER. IN ADDITION, A POSSIBLE EYEWALL REPLACEMENT CYCLE DURING ITS MATURE PHASE COULD CAUSE ITS INTENSITY TO FLUCTUATE.

IMPACTS ON INHABITED LAND OVER THE NEXT 72 HOURS :

NORTHWEST MADAGASCAR:

- HEAVY RAINS STILL EXPECTED LOCALLY ALONG THE COAST OF MAHAJANGA AND ANTISRANANA PROVINCES, OF THE ORDER OF 100-150 MM (LOC 150-200 MM OVER THE RELIEF)

MOZAMBIQUE (COAST OF NAMPULA PROVINCE):

- RISK OF STORM FORCE WIND OR EVEN HURRICANE-FORCE WINDS POSSIBLE FROM MONDAY TO TUESDAY MORNING.
- HEAVY TO LOCALLY TORRENTIAL RAIN MONDAY TO TUESDAY. CUMULATIVE RAINFALL OF 100-150MM IN 24 HOURS, OR 200-300MM LOCALLY ALONG THE COAST.
- WAVES OF 4 TO 6 METRES POSSIBLE ON MONDAY AND UNTIL TUESDAY MORNING.

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

- WAVES OF 4 TO 6 METRES POSSIBLE

JUAN DE NOVA MONDAY AND TUESDAY:

- HEAVY RAINS - 100MM IN 24 HOURS.
- WAVES OF 4M POSSIBLE.

EUROPA FROM WEDNESDAY :

- GALE TO STORM POSSIBLE, HURRICANE FORCE WINDS NOT EXCLUDED.
- HEAVY RAIN (100-150MM CUMULATIVE).
- WAVES OF 4 TO 6 METERS POSSIBLE.