

WTIO30 FMEE 120014

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 21/5/20242025

1.A MODERATE TROPICAL STORM 5 (DIKELEDI)

2.A POSITION 2025/01/12 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 13.2 S / 48.1 E
(THIRTEEN DECIMAL TWO DEGREES SOUTH AND
FORTY EIGHT DECIMAL ONE DEGREES EAST)
MOVEMENT: WEST-SOUTH-WEST 13 KT

3.A DVORAK ANALYSIS: 3.5/4.5/W 1.0/6 H

4.A CENTRAL PRESSURE: 998 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 45 KT
RADIUS OF MAXIMUM WINDS (RMW): 20 KM

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

28 KT NE: 150 SE: 130 SW: 185 NW: 150
34 KT NE: 95 SE: 45 SW: 120 NW: 95

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: 2025/01/12 12 UTC: 14.1 S / 45.7 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 140 SE: 195 SW: 150 NW: 130
34 KT NE: 95 SE: 110 SW: 120 NW: 85
48 KT NE: 45 SE: 45 SW: 0 NW: 35

24H: 2025/01/13 00 UTC: 15.0 S / 43.3 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 165 SW: 150 NW: 140
34 KT NE: 100 SE: 95 SW: 120 NW: 95
48 KT NE: 45 SE: 55 SW: 45 NW: 45
64 KT NE: 30 SE: 35 SW: 35 NW: 35

36H: 2025/01/13 12 UTC: 16.0 S / 41.5 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 185 SE: 155 SW: 130 NW: 140
34 KT NE: 110 SE: 85 SW: 100 NW: 85
48 KT NE: 45 SE: 55 SW: 45 NW: 35
64 KT NE: 30 SE: 35 SW: 30 NW: 30

48H: 2025/01/14 00 UTC: 17.1 S / 40.6 E, VENT MAX= 090 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 185 SE: 175 SW: 140 NW: 100

34 KT NE: 110 SE: 95 SW: 110 NW: 65
48 KT NE: 55 SE: 55 SW: 45 NW: 45
64 KT NE: 35 SE: 45 SW: 35 NW: 35

60H: 2025/01/14 12 UTC: 18.7 S / 40.3 E, VENT MAX= 100 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 230 SE: 185 SW: 150 NW: 165
34 KT NE: 140 SE: 100 SW: 120 NW: 100
48 KT NE: 55 SE: 55 SW: 45 NW: 45
64 KT NE: 45 SE: 45 SW: 35 NW: 35

72H: 2025/01/15 00 UTC: 20.8 S / 40.6 E, VENT MAX= 100 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 240 SE: 205 SW: 155 NW: 165
34 KT NE: 140 SE: 110 SW: 130 NW: 100
48 KT NE: 65 SE: 65 SW: 45 NW: 45
64 KT NE: 45 SE: 55 SW: 35 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2025/01/16 00 UTC: 24.9 S / 41.9 E, VENT MAX= 100 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 215 SE: 155 SW: 150 NW: 205
34 KT NE: 110 SE: 85 SW: 120 NW: 130
48 KT NE: 55 SE: 65 SW: 45 NW: 45
64 KT NE: 35 SE: 45 SW: 35 NW: 35

120H: 2025/01/17 00 UTC: 28.4 S / 45.6 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 270 SE: 220 SW: 220 NW: 270
34 KT NE: 130 SE: 130 SW: 140 NW: 130
48 KT NE: 60 SE: 60 SW: 60 NW: 60
64 KT NE: 50 SE: 50 SW: 50 NW: 50

2.C ADDITIONAL INFORMATION:

IN THE LAST 6 HOURS, DIKELEDI LANDED ON THE NORTHERN TIP OF MADAGASCAR AT AROUND 1630 UTC BETWEEN THE TOWNS OF ANTSIRANANA AND VOHEMAR, AND EMERGED CLOSE TO NOSY-BE A FEW HOURS LATER. THE PASSAGE OVER THE MALAGASY LANDMASS CONSIDERABLY REDUCED ITS INTENSITY AND DAMAGED ITS CONFIGURATION. IT IS ESTIMATED TO BE A MODERATE TROPICAL STORM WITH WINDS OF 45KT.

IN TERMS OF TRACK, LITTLE HAS CHANGED. WITH A WEAK SUBTROPICAL RIDGE OVER THE MOZAMBIQUE CHANNEL, THE SYSTEM IS SET TO GRADUALLY TILT ITS TRACK TO THE WEST-SOUTH-WEST AND THEN SOUTH-WEST OVER THE NEXT 48 HOURS. IT WILL THEN TURN SOUTH AND THEN SOUTHEAST ON TUESDAY. THE MODELS ARE HIGHLY DISPERSED FROM MONDAY ONWARDS. IN FACT, DEPENDING ON THE INFLUENCE OF THE TROUGH OVER SOUTHERN AFRICA, DIKELEDI'S TRACK COULD IMPACT THE MOZAMBIQUE COAST OVER THE PROVINCE OF NAMPULA ON MONDAY, OR PASS MUCH FURTHER INTO THE CENTER THE CHANNEL. SIMILARLY, IN THE LONGER TERM, THE PREFERRED SCENARIO REMAINS A PASSAGE TO THE SOUTH OF MADAGASCAR, BUT A SCENARIO PASSING OVER THE SOUTHERN TIP OF GRANDE TERRE CANNOT BE RULED OUT. THE RSMC FORECAST IS A COMPROMISE BETWEEN THE DIFFERENT GUIDANCE AVAILABLE, MOVING CLOSER TO THE AROME

SCENARIO WITH A TURN MORE TOWARDS THE CENTER OF THE CHANNEL.

IN TERMS OF INTENSITY, DIKELEDI WEAKENED CONSIDERABLY FOLLOWING ITS PASSAGE OVER MADAGASCAR. NOW BACK OVER THE WATERS OF THE MOZAMBIQUE CHANNEL, THE SYSTEM WILL BE CIRCULATING IN VERY WARM WATERS AND A HUMID ENVIRONMENT, ENABLING IT TO RESTRUCTURE RAPIDLY. HOWEVER, THE WIND SHEAR WILL INITIALLY LIMIT ITS INTENSIFICATION A LITTLE THIS MORNING, BUT DIKELEDI WILL RAPIDLY INTENSIFY AS IT DIMINISHES OVERNIGHT. THERE IS STILL CONSIDERABLE UNCERTAINTY ABOUT THE INTENSITY OF THE SYSTEM, AS THIS WILL DEPEND ON ITS FINAL TRACK. IN FACT, WITH A CENTRAL TRACK LIKE THE ONE PROPOSED BY THE RSMC, THERE ARE FEW OBSTACLES TO THE INTENSIFICATION OF DIKELEDI UP TO THE STAGE OF AN INTENSE TROPICAL CYCLONE (LOW SHEAR, EXCELLENT ALTITUDE DIVERGENCE, EXCEPTIONAL OCEANIC HEAT CONTENT). HOWEVER, IF THERE IS INTERACTION WITH AFRICAN COASTS, INTENSIFICATION WILL BE SLOWER. IN ADDITION, A POSSIBLE REPLACEMENT OF THE EYEWALL DURING ITS MATURE PHASE COULD CAUSE ITS INTENSITY TO FLUCTUATE.

IMPACTS ON INHABITED LAND IN THE NEXT 72 HOURS :

MADAGASCAR:

- GALE STILL IN PROGRESS OVER WESTERN ANTSIRANANA PROVINCE, DISSIPATING IN THE NEXT FEW HOURS. GALE EXTENDING TO CAPE SAINT-ANDRE ALONG MAHAJANGA PROVINCE UNTIL THIS EVENING, THEN POSSIBLE EXTENSION NEXT WEEK SOUTH OF CAPE SAINT-ANDRE ON MONDAY AND TUESDAY.
- HEAVY RAINS UNDERWAY OVER ANTSIRANANA PROVINCE. ADDITIONAL ACCUMULATIONS OF 100MM POSSIBLE BEFORE AN IMPROVEMENT DURING THE DAY. HEAVY RAINS ALONG THE COAST OF MAHAJANGA PROVINCE POSSIBLE TODAY. 100MM CUMULATIVE RAINFALL POSSIBLE DURING THE DAY.

MAYOTTE :

- GALE FORCE WINDS POSSIBLE OVER THE SOUTH OF THE ISLAND IN THE NEXT FEW HOURS.
- HEAVY RAIN UNTIL THE END OF THE DAY UNDER THE PERIPHERAL BANDS. TOTAL RAINFALL OVER 100-150 MM IN 12 HOURS POSSIBLE.

COMOROS :

- HEAVY RAIN TODAY AROUND THE SYSTEM. CUMULUS CLOSE TO 100 MM IN 24H LOCALLY, 150-200 MM ON EXPOSED RELIEF.

MOZAMBIQUE (COAST OF NAMPULA PROVINCE):

- GALE FORCE WINDS POSSIBLE DURING THE DAY ON MONDAY AND INTO THE FOLLOWING NIGHT. REDUCED RISK OF STORM-FORCE WINDS ON MONDAY AFTERNOON AND EVENING.
- HEAVY RAIN POSSIBLE FROM MONDAY. 100-200 MM IN 24H POSSIBLE LOCALLY ALONG THE COAST.
- WAVES OF UP TO 4 METRES POSSIBLE DURING THE DAY ON MONDAY AND UNTIL TUESDAY MORNING.