

WTIO30 FMEE 080041

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 5/5/20242025

1.A TROPICAL DEPRESSION 5

2.A POSITION 2025/01/08 AT 0000 UTC:

WITHIN 40 NM RADIUS OF POINT 14.5 S / 74.9 E

(FOURTEEN DECIMAL FIVE DEGREES SOUTH AND
SEVENTY FOUR DECIMAL NINE DEGREES EAST)

MOVEMENT: WEST 17 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/6 H

4.A CENTRAL PRESSURE: 1000 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 0 SE: 220 SW: 220 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: 2025/01/08 12 UTC: 14.9 S / 70.1 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 0 SE: 220 SW: 260 NW: 0

34 KT NE: 0 SE: 100 SW: 0 NW: 0

24H: 2025/01/09 00 UTC: 15.4 S / 66.4 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 0 SE: 220 SW: 155 NW: 0

34 KT NE: 0 SE: 100 SW: 0 NW: 0

36H: 2025/01/09 12 UTC: 15.2 S / 62.8 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 95 SE: 175 SW: 215 NW: 95

34 KT NE: 0 SE: 95 SW: 95 NW: 0

48H: 2025/01/10 00 UTC: 15.0 S / 59.3 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 110 SE: 270 SW: 270 NW: 110

34 KT NE: 55 SE: 110 SW: 110 NW: 55

60H: 2025/01/10 12 UTC: 14.7 S / 56.2 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 130 SE: 185 SW: 185 NW: 130
34 KT NE: 85 SE: 100 SW: 100 NW: 85
48 KT NE: 45 SE: 45 SW: 45 NW: 45

72H: 2025/01/11 00 UTC: 14.2 S / 53.0 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 130 SE: 230 SW: 215 NW: 130
34 KT NE: 75 SE: 95 SW: 95 NW: 75
48 KT NE: 45 SE: 65 SW: 65 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2025/01/12 00 UTC: 14.0 S / 47.7 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 0 SE: 215 SW: 155 NW: 0
34 KT NE: 0 SE: 95 SW: 0 NW: 0

120H: 2025/01/13 00 UTC: 15.4 S / 43.8 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM
28 KT NE: 0 SE: 220 SW: 155 NW: 85
34 KT NE: 0 SE: 100 SW: 65 NW: 55
48 KT NE: 0 SE: 60 SW: 50 NW: 40

2.C ADDITIONAL INFORMATION:

T=CI=2.5

OVER THE PAST 6 HOURS, DEEP CONVECTION HAS DEVELOPED AND BEEN MAINTAINED AROUND THE CENTER. THE F-18 MICRO-WAVE IMAGE FROM 2330Z SHOWS THAT CIRCULATION IS BEGINNING TO ORGANIZE BUT IS STILL HINDERED BY DRY AIR INTRUSION INTO THE NORTHERN PART OF THE SYSTEM. A SUBJECTIVE DVORAK ANALYSIS RAISES THE T-NUMBER TO 2.5 AND CLASSIFIES THE SYSTEM AS A TROPICAL DEPRESSION WITH ESTIMATED WINDS OF 30KT.

LITTLE CHANGE IN TERMS OF FORECAST TRACK: IT IS FORECAST TO MOVE WESTWARD, GUIDED ALONG THE NORTHERN EDGE OF A SUBTROPICAL RIDGE CENTERED ON THE BASIN. THE GUIDANCE IS RELATIVELY WELL DEFINED, AS SHOWN BY THE CONSISTENCY BETWEEN THE VARIOUS MODELS. HOWEVER, IT SHOULD MOVE SLIGHTLY SLOWER THAN FORECAST IN PREVIOUS BULLETINS. ON THIS TRACK, THE SYSTEM SHOULD LAND NORTH OF MADAGASCAR ON SATURDAY, PASSING CLOSE TO SAINT-BRANDON AND TROMELIN ON FRIDAY. ON SUNDAY, IT SHOULD EMERGE INTO THE MOZAMBIQUE CHANNEL ON A SOUTH-WESTERLY TRAJECTORY. ALTHOUGH CONFIDENCE IN THE TRAJECTORY IS FAIRLY GOOD, IT SHOULD BE BORNE IN MIND THAT FORECAST UNCERTAINTY INCREASES OVER THE LONGER TERM.

IN TERMS OF INTENSITY FORECASTS, THE VARIOUS MODELS ARE QUITE DISPARATE. WITH THE PRESENCE OF DRY AIR AND RELATIVELY STRONG VERTICAL SHEAR AT PRESENT, THE SYSTEM IS STILL STRUGGLING TO ORGANIZE ITSELF. AS THE SHEAR DECREASES, THE SYSTEM SHOULD INTENSIFY MORE REGULARLY, REACHING THE MODERATE TROPICAL STORM THRESHOLD THIS WEDNESDAY. THEREAFTER, THE SYSTEM SHOULD REACH THE SEVERE TROPICAL STORM STAGE BEFORE MAKING LANDFALL OVER MADAGASCAR. ON EXITING THE MOZAMBIQUE CANAL, IT COULD REINTENSIFY AND PERSIST FOR SEVERAL MORE DAYS. 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 CMRS FORECAST OPTING FOR A HIGHER INTENSITY THAN THAT OF MOST MODELS.

IMPACTS ON INHABITED LAND OVER THE NEXT 72 HOURS :

SAINT BRANDON :

- GALE POSSIBLE OVERNIGHT THURSDAY TO FRIDAY.
- VERY ROUGH SEAS POSSIBLE WITH WAVES OF 4 TO 6M ON FRIDAY.
- RAINFALL LOCALLY UP TO 100MM IN 24H DURING THE EPISODE.
- IMPROVEMENT DURING THE DAY ON FRIDAY.

TROMELIN:

- GALE POSSIBLE ON FRIDAY.
- VERY HEAVY SEAS POSSIBLE WITH WAVES OF 4 TO 6M ON FRIDAY AND SATURDAY.
- RAINFALL LOCALLY UP TO 150MM IN 24H DURING THE EPISODE.
- IMPROVEMENT OVERNIGHT FRIDAY TO SATURDAY.