

WTIO30 FMEE 041233

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/8/20242025

1.A TROPICAL CYCLONE 8 (VINCE)

2.A POSITION 2025/02/04 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 18.0 S / 89.0 E

(EIGHTEEN DECIMAL ZERO DEGREES SOUTH AND
EIGHTY NINE DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: 4.5/5.0/W 0.5/6 H

4.A CENTRAL PRESSURE: 974 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 70 KT

RADIUS OF MAXIMUM WINDS (RMW): 17 KM

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

28 KT NE: 130 SE: 240 SW: 345 NW: 205

34 KT NE: 110 SE: 130 SW: 150 NW: 110

48 KT NE: 35 SE: 95 SW: 90 NW: 45

64 KT NE: 20 SE: 30 SW: 30 NW: 20

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 1400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2025/02/05 00 UTC: 18.8 S / 86.7 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 270 SW: 315 NW: 175

34 KT NE: 110 SE: 150 SW: 155 NW: 110

48 KT NE: 55 SE: 85 SW: 75 NW: 45

64 KT NE: 20 SE: 30 SW: 30 NW: 20

24H: 2025/02/05 12 UTC: 19.4 S / 84.5 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 270 SW: 305 NW: 175

34 KT NE: 110 SE: 150 SW: 155 NW: 110

48 KT NE: 55 SE: 85 SW: 75 NW: 55

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

36H: 2025/02/06 00 UTC: 19.8 S / 82.7 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 185 SE: 270 SW: 295 NW: 175

34 KT NE: 110 SE: 140 SW: 155 NW: 100

48 KT NE: 55 SE: 85 SW: 75 NW: 55

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

48H: 2025/02/06 12 UTC: 20.3 S / 80.7 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 185 SE: 285 SW: 295 NW: 175

34 KT NE: 110 SE: 155 SW: 155 NW: 95

48 KT NE: 55 SE: 85 SW: 75 NW: 65

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

60H: 2025/02/07 00 UTC: 20.7 S / 78.6 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 185 SE: 325 SW: 325 NW: 175

34 KT NE: 110 SE: 195 SW: 185 NW: 100

48 KT NE: 55 SE: 95 SW: 85 NW: 65

64 KT NE: 45 SE: 55 SW: 65 NW: 45

72H: 2025/02/07 12 UTC: 21.2 S / 76.2 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 205 SE: 345 SW: 350 NW: 185

34 KT NE: 130 SE: 205 SW: 195 NW: 110

48 KT NE: 65 SE: 100 SW: 85 NW: 75

64 KT NE: 55 SE: 55 SW: 65 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2025/02/08 12 UTC: 22.2 S / 72.0 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 220 SE: 370 SW: 360 NW: 205

34 KT NE: 130 SE: 215 SW: 205 NW: 120

48 KT NE: 85 SE: 100 SW: 95 NW: 75

64 KT NE: 55 SE: 75 SW: 75 NW: 65

120H: 2025/02/09 12 UTC: 23.2 S / 69.1 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 270 SE: 445 SW: 400 NW: 240

34 KT NE: 155 SE: 260 SW: 230 NW: 140

48 KT NE: 80 SE: 110 SW: 100 NW: 80

64 KT NE: 60 SE: 60 SW: 70 NW: 70

2.C ADDITIONAL INFORMATION:

OVER THE LAST SIX HOURS, VINCE'S CLOUD PATTERN HAS DETERIORATED, WITH THE EYE BECOMING LESS AND LESS VISIBLE IN CONVENTIONAL IMAGERY. THIS EVOLUTION IS PROBABLY THE CONSEQUENCE OF THE ONSET OF AN EYE WALL REPLACEMENT CYCLE LAST NIGHT, IN A NORTH-EASTERLY SHEARED AND DRY MID-TROPOSPHERE ENVIRONMENT. THE LATEST MICROWAVE IMAGES (1038Z SSMIS AND 0926Z GMI) STILL SHOW THE PRESENCE OF THE DOUBLE STRUCTURE, BUT WITH AN INNER EYEWALL CLEARLY OPEN IN THE SOUTHEASTERN QUADRANT. THE LATEST OBJECTIVE ESTIMATES (ADT, DPRINT, DMINT) FROM CIMSS AND PARTIAL DATA FROM THE AMSR2 PASS SUGGEST AN INTENSITY BETWEEN 65 AND 75KT. THE INTENSITY IS THEREFORE SET AT 70KT.

REGARDING ITS TRACK, VINCE IS EXPECTED TO MOVE WEST-SOUTHWESTWARD OVER THE NEXT 5 DAYS. ITS MOVEMENT IS DRIVEN BY THE SUBTROPICAL RIDGE THAT REMAINS TO ITS SOUTHEAST. BY THE END OF THE WEEK, THE RIDGE SHOULD SHIFT EAST OF VINCE, GRADUALLY SLOWING THE STEERING FLOW AND SHIFTING IT SOUTHWARDS. ALL GUIDANCE ARE IN AGREEMENT WITH THIS SCENARIO. SPREADING REMAINS PARTICULARLY LOW.

REGARDING ITS ENVIRONMENT, VINCE SHOULD BENEFIT FROM A FAIR OCEANIC POTENTIAL ALONG ITS TRACK (SST CLOSE TO 27C), BECOMING MORE IMPORTANT AT LONGER RANGE. THE CURRENT SHEAR THIS TUESDAY SHOULD EASE OVER THE NEXT 24 HOURS, WHILE THE UPPER LEVEL DIVERGENCE COULD STRENGTHEN. VINCE SHOULD THEREFORE EXPERIENCE A NEW STRENGTHENING PHASE ON WEDNESDAY AND THURSDAY. IT SHOULD SO REACH THE INTENSE TROPICAL CYCLONE STAGE. FROM FRIDAY ONWARDS, THE DEEP WESTERLY SHEAR IS EXPECTED TO GRADUALLY STRENGTHEN. THIS ENVIRONMENT, ALONG WITH THE POSSIBILITY OF A NEW EYEWALL REPLACEMENT CYCLE, SHOULD LIMIT VINCE'S INTENSITY BEYOND THIS POINT.

NO SIGNIFICANT IMPACT IS EXPECTED ON INHABITED LAND OVER THE NEXT 72 HOURS.