

WTIO30 FMEE 260629

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/7/20212022

1.A INTENSE TROPICAL CYCLONE 7 (VERNON)

2.A POSITION 2022/02/26 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 14.7 S / 89.4 E

(FOURTEEN DECIMAL SEVEN DEGREES SOUTH AND
EIGHTY NINE DECIMAL FOUR DEGREES EAST)

MOVEMENT: WEST 13 KT

3.A DVORAK ANALYSIS: 6.0/6.0/S 0.0/6 H

4.A CENTRAL PRESSURE: 950 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 105 KT

RADIUS OF MAXIMUM WINDS (RMW): 11 KM

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

28 KT NE: 150 SE: 295 SW: 240 NW: 150

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

48 KT NE: 35 SE: 45 SW: 50 NW: 35

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 200 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/02/26 18 UTC: 14.0 S / 88.4 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 220 SE: 165 SW: 85 NW: 220

34 KT NE: 150 SE: 55 SW: 55 NW: 165

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

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

24H: 2022/02/27 06 UTC: 12.9 S / 88.3 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 140 SE: 335 SW: 150 NW: 195

34 KT NE: 100 SE: 165 SW: 85 NW: 140

48 KT NE: 45 SE: 85 SW: 65 NW: 65

64 KT NE: 35 SE: 35 SW: 0 NW: 30

36H: 2022/02/27 18 UTC: 13.9 S / 88.2 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 175 SE: 240 SW: 240 NW: 130

34 KT NE: 120 SE: 110 SW: 130 NW: 95

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

64 KT NE: 30 SE: 45 SW: 30 NW: 30

48H: 2022/02/28 06 UTC: 14.5 S / 87.4 E, VENT MAX= 065 KT, TROPICAL CYCLONE
28 KT NE: 155 SE: 270 SW: 205 NW: 140
34 KT NE: 110 SE: 130 SW: 100 NW: 95
48 KT NE: 55 SE: 45 SW: 55 NW: 35
64 KT NE: 35 SE: 30 SW: 35 NW: 30

60H: 2022/02/28 18 UTC: 15.3 S / 86.9 E, VENT MAX= 070 KT, TROPICAL CYCLONE
28 KT NE: 185 SE: 370 SW: 215 NW: 205
34 KT NE: 120 SE: 195 SW: 110 NW: 140
48 KT NE: 65 SE: 65 SW: 65 NW: 65
64 KT NE: 35 SE: 45 SW: 35 NW: 30

72H: 2022/03/01 06 UTC: 17.0 S / 86.4 E, VENT MAX= 075 KT, TROPICAL CYCLONE
28 KT NE: 220 SE: 405 SW: 260 NW: 205
34 KT NE: 140 SE: 230 SW: 150 NW: 140
48 KT NE: 75 SE: 65 SW: 75 NW: 85
64 KT NE: 55 SE: 55 SW: 55 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2022/03/02 06 UTC: 20.8 S / 84.8 E, VENT MAX= 070 KT, TROPICAL CYCLONE
28 KT NE: 285 SE: 480 SW: 315 NW: 240
34 KT NE: 165 SE: 285 SW: 185 NW: 155
48 KT NE: 85 SE: 85 SW: 85 NW: 95
64 KT NE: 45 SE: 65 SW: 65 NW: 55

120H: 2022/03/03 06 UTC: 25.2 S / 82.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 295 SE: 405 SW: 270 NW: 230
34 KT NE: 155 SE: 260 SW: 195 NW: 150
48 KT NE: 80 SE: 70 SW: 70 NW: 90

2.C ADDITIONAL INFORMATION:

T=CI=6.0+

INITIALLY TRACKED BY THE PERTH CENTER, THE TROPICAL CYCLONE VERNON (NAMED ACCORDING TO THE AUSTRALIAN BASIN) ENTERED THE SOUTH-WEST INDIAN OCEAN BASIN A LITTLE BEFORE 0400UTC. AT 00UTC, THE PERTH CENTER LOCATED IT AT 14.8S/90.9E WITH A DVORAK ANALYSIS OF 6.0, THAT IS TO SAY ESTIMATED AVERAGE WINDS OF ABOUT 100KT. DURING THE LAST 6 HOURS, THE CLOUD PATTERN HAS CHANGED LITTLE LEAVING A 6 HOUR AVERAGE DVORAK ANALYSIS OF 6.0+ OR AVERAGE WINDS IN THE 105KT RANGE. THE SIZE OF THE EYE ALLOWS TO ESTIMATE MAXIMUM WIND RADIUS OF ABOUT 6MN (ABOUT 12KM) DEFINING A SMALL-SCALE SYSTEM. WE WILL NOTE THE PRESENCE OF A TROPICAL DEPRESSION IN THE NORTH (WHICH BY EFFECT OF FUJIWARA MOVED ON THE AUSTRALIAN BASIN SHORTLY AFTER 03UTC) AND PRESENTING WINDS OF 35KT IN THE NORTHERN PART AND MORE APPRECIABLY 40KT IN THE NORTHEAST QUADRANT ACCORDING TO THE 0258UTC ASCAT SWATH. THIS SECOND SYSTEM WILL NOT BE FOLLOWED BY SPECIFIC WARNINGS ISSUED BY THE RSMC OF THE REUNION.

IN TERMS OF TRACK, THE INFLUENCE OF THE SUBTROPICAL RIDGE LOCATED WELL TO THE SOUTH IS WEAKENING AND LEAVING A GROWING PLACE TO A FUJIWARA EFFECT WITH THE SYSTEM LOCATED MORE NORTH OF VERNON. DUE TO THE

PRESENCE OF THIS SYSTEM, THE TRACK WILL PRESENT A LOOP TOWARDS THE NORTH PUTTING IT BACK ON A SOUTH-SOUTH-WESTERN TRACK WITHIN 48 HOURS. THEREAFTER, VERNON IS GUIDED TOWARDS THE SOUTH-SOUTHWEST BY THE HIGH GEOPOTENTIALS OF ALTITUDE FORCING LOCATED AT THE EAST OF THE SYSTEM AND THE TROUGH CIRCULATING MORE IN THE SOUTH. THIS TRACK WILL CONTINUE, TAKING VERNON TOWARDS THE 25S BY THURSDAY.

IN TERMS OF INTENSITY, THE INTERACTION BETWEEN THE TWO SYSTEMS WILL INDUCE A MUTUAL DISCOMFORT BUT WHICH WILL BE LESS MARKED FOR VERNON. THE SYSTEM IN THE NORTH ENTERING THE AUSTRALIAN BASIN WILL BE IN A ZONE OF INCREASING SHEAR AND A LACK OF CONVERGENCE OF LOW LAYERS IN THE SOUTHERN PART. IN CONTRAST, THE SHEAR OVER VERNON IS ALSO PRESENT BUT LESS SEVERE WHILE THE LOW LEVEL SUPPLY OVER THE NORTHERN PART IS ALMOST NON-EXISTENT LIMITING GREATLY THE MAINTENANCE OF THE INTENSITY OF VERNON. IN THESE CONDITIONS, THE INTENSITY OF VERNON WILL DECREASE DURING THE NEXT 48 HOURS LEAVING A TROPICAL CLYCLONE (OR EVEN LESS) WELL WEAKENED AT THE END OF ITS INTERACTION AND ITS LOOPING TRACK. THE OCEANIC POTENTIAL IS PRESENT FOR THE MOMENT BUT WILL DECREASE WELL DURING THE LOOP CONTRIBUTING TO ATTENUATE THE INTENSITY OF VERNON. THEREAFTER, ALTHOUGH THE DRY AIR REMAINS AT A GOOD DISTANCE IN THE NORTHERN PART, THE WIND SHEAR IS MORE PRESENT ON THE SOUTHERN PART AND ALLOWS ONLY A MODERATE REINTENSIFICATION UNTIL TUESDAY. CONTINUING ITS DESCENT TOWARDS THE SOUTHERN LATITUDES, THE WIND SHEAR AND THE INTRUSION OF DRY AIR BY THE NORTH WILL BEGIN THE WEAKENING OF THE SYSTEM TO LEAD IT TO THE STAGE OF STRONG TROPICAL STORM BY THURSDAY.

IN TERMS OF IMPACTS, THIS SYSTEM REMAINS FAR FROM INHABITED LANDS.