

WTIO30 FMEE 141909

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 2/7/20222023

1.A INTENSE TROPICAL CYCLONE 7 (FREDDY)

2.A POSITION 2023/02/14 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 15.2 S / 89.0 E
(FIFTEEN DECIMAL TWO DEGREES SOUTH AND
EIGHTY NINE DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST 11 KT

3.A DVORAK ANALYSIS: 5.5/5.5/D 1.0/12 H

4.A CENTRAL PRESSURE: 956 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 95 KT
RADIUS OF MAXIMUM WINDS (RMW): 22 KM

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

28 KT NE: 110 SE: 120 SW: 325 NW: 175

34 KT NE: 95 SE: 95 SW: 165 NW: 110

48 KT NE: 35 SE: 65 SW: 60 NW: 75

64 KT NE: 30 SE: 35 SW: 35 NW: 45

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/02/15 06 UTC: 15.1 S / 86.6 E, VENT MAX= 100 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 140 SE: 215 SW: 260 NW: 155

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

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

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

24H: 2023/02/15 18 UTC: 15.0 S / 84.0 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 150 SE: 220 SW: 250 NW: 155

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

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

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

36H: 2023/02/16 06 UTC: 14.9 S / 81.4 E, VENT MAX= 100 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 155 SE: 240 SW: 250 NW: 155

34 KT NE: 110 SE: 130 SW: 165 NW: 110

48 KT NE: 65 SE: 75 SW: 75 NW: 75
64 KT NE: 45 SE: 55 SW: 55 NW: 45

48H: 2023/02/16 18 UTC: 14.9 S / 78.9 E, VENT MAX= 105 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 165 SE: 260 SW: 240 NW: 165
34 KT NE: 120 SE: 140 SW: 165 NW: 110
48 KT NE: 75 SE: 85 SW: 75 NW: 75
64 KT NE: 55 SE: 55 SW: 55 NW: 45

60H: 2023/02/17 06 UTC: 15.0 S / 76.4 E, VENT MAX= 100 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 175 SE: 270 SW: 270 NW: 175
34 KT NE: 120 SE: 150 SW: 175 NW: 120
48 KT NE: 75 SE: 85 SW: 75 NW: 85
64 KT NE: 55 SE: 55 SW: 55 NW: 55

72H: 2023/02/17 18 UTC: 15.3 S / 74.2 E, VENT MAX= 105 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 175 SE: 260 SW: 260 NW: 175
34 KT NE: 130 SE: 150 SW: 175 NW: 120
48 KT NE: 75 SE: 85 SW: 75 NW: 75
64 KT NE: 55 SE: 55 SW: 55 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2023/02/18 18 UTC: 15.3 S / 70.3 E, VENT MAX= 105 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 185 SE: 280 SW: 285 NW: 195
34 KT NE: 130 SE: 155 SW: 185 NW: 130
48 KT NE: 85 SE: 85 SW: 85 NW: 85
64 KT NE: 55 SE: 65 SW: 55 NW: 45

120H: 2023/02/19 18 UTC: 16.1 S / 65.8 E, VENT MAX= 110 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 195 SE: 315 SW: 305 NW: 185
34 KT NE: 140 SE: 175 SW: 205 NW: 130
48 KT NE: 70 SE: 90 SW: 90 NW: 70
64 KT NE: 60 SE: 60 SW: 60 NW: 40

2.C ADDITIONAL INFORMATION:

T=CI=5.5+

FOLLOWED BY THE RSMC OF REUNION FROM THE 12UTC, FREDDY PRESENTS AN EYE STRUCTURE WHICH HAS BEEN MAINTAINED DURING THE LAST 6 HOURS WITH VERY COLD CONVECTIVE TOPS BUT AN EYE WHICH CAN'T REALLY BREAK FREE. IN SUCH A CONFIGURATION, A DVORAK EYE ANALYSIS IS POSSIBLE AND ALLOWS TO ESTIMATE WINDS OF ABOUT 95KT, PLACING FREDDY AT THE STAGE OF AN INTENSE TROPICAL CYCLONE. THE DATA OF THE 1224UTC SAR SWATH ALLOWS TO VALIDATE THIS ESTIMATION AND TO CONSOLIDATE THE VALUES OF THE WIND EXTENSIONS.

NO CHANGE IN TERMS OF TRACK FORECAST, FREDDY SHOULD EVOLVE AT A REGULAR PACE IN A GENERAL WESTERLY DIRECTION, ALONG THE NORTHERN

EDGE OF THE SUBTROPICAL RIDGE. ON THIS POINT, THE GUIDELINES ARE IN GOOD AGREEMENT WITH LITTLE DISRUPTION UNTIL SUNDAY: A ZONAL TRACK BASED ON THE 15TH PARALLELEL, MAKING IT TRANSIT NORTH OF THE MASCAREIGNES. AT THESE TIMES, IT IS NECESSARY TO REMAIN CAUTIOUS BECAUSE OF THE UNCERTAINTY OF THE FORECASTS.

IN TERMS OF INTENSITY, FREDDY CURRENTLY HAS EXCELLENT ENVIRONMENTAL CONDITIONS OFFSET BY MODERATE NORTHEASTERLY SHEAR, BUT THIS IS COMPENSATED FOR BY THE WESTWARD MOVEMENT OF THE SYSTEM, WHICH DOES NOT REALLY SEEM TO BE A PROBLEM. FREDDY SHOULD INTENSIFY REGULARLY WITH A SHEAR THAT SHOULD STILL WEAKEN. IN THESE CONDITIONS, FREDDY WILL KEEP A MINIMAL THRESHOLD OF INTENSE TROPICAL CYCLONE INTERSPERSED WITH FLUCTUATIONS OF INTENSITY DUE TO THE IMPLEMENTATION OF CYCLES OF REPLACEMENT OF THE EYE WALL, WHICH CAN BRING IT TO THE THRESHOLD OF VERY INTENSE TROPICAL CYCLONE.

AT THIS STAGE, THERE IS NO DIRECT THREAT TO THE INHABITED LANDS OVER THE NEXT FIVE DAYS.