

WTIO30 FMEE 260636

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 21/4/20222023

1.A INTENSE TROPICAL CYCLONE 4 (DARIAN)

2.A POSITION 2022/12/26 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 16.7 S / 85.0 E

(SIXTEEN DECIMAL SEVEN DEGREES SOUTH AND
EIGHTY FIVE DECIMAL ZERO DEGREES EAST)

MOVEMENT: SOUTH 2 KT

3.A DVORAK ANALYSIS: 5.5/5.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 954 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 90 KT

RADIUS OF MAXIMUM WINDS (RMW): 21

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

28 KT NE: 295 SE: 445 SW: 405 NW: 295

34 KT NE: 185 SE: 240 SW: 260 NW: 205

48 KT NE: 130 SE: 155 SW: 160 NW: 140

64 KT NE: 85 SE: 100 SW: 100 NW: 95

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 1200 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/12/26 18 UTC: 17.3 S / 84.3 E, VENT MAX= 090 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 280 SE: 425 SW: 360 NW: 250

34 KT NE: 175 SE: 220 SW: 220 NW: 130

48 KT NE: 85 SE: 110 SW: 95 NW: 85

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

24H: 2022/12/27 06 UTC: 18.0 S / 82.7 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 285 SE: 445 SW: 380 NW: 250

34 KT NE: 175 SE: 220 SW: 230 NW: 140

48 KT NE: 95 SE: 110 SW: 95 NW: 85

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

36H: 2022/12/27 18 UTC: 19.3 S / 80.4 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 295 SE: 455 SW: 400 NW: 250

34 KT NE: 185 SE: 230 SW: 240 NW: 140

48 KT NE: 95 SE: 110 SW: 100 NW: 85

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

48H: 2022/12/28 06 UTC: 21.0 S / 77.5 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM
28 KT NE: 305 SE: 470 SW: 415 NW: 250
34 KT NE: 185 SE: 240 SW: 250 NW: 140
48 KT NE: 100 SE: 120 SW: 100 NW: 85

60H: 2022/12/28 18 UTC: 22.5 S / 74.6 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 315 SE: 490 SW: 425 NW: 250
34 KT NE: 195 SE: 240 SW: 260 NW: 150
48 KT NE: 100 SE: 120 SW: 110 NW: 95

72H: 2022/12/29 06 UTC: 24.1 S / 72.0 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 325 SE: 500 SW: 445 NW: 250
34 KT NE: 195 SE: 250 SW: 270 NW: 150
48 KT NE: 110 SE: 130 SW: 110 NW: 95

2.B LONGER-RANGE OUTLOOK:

96H: 2022/12/30 06 UTC: 27.7 S / 68.8 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 345 SE: 535 SW: 480 NW: 250
34 KT NE: 205 SE: 260 SW: 285 NW: 155

120H: 2022/12/31 06 UTC: 31.6 S / 68.1 E, VENT MAX= 040 KT, POST-TROPICAL DEPRESSION

28 KT NE: 360 SE: 565 SW: 510 NW: 250
34 KT NE: 215 SE: 270 SW: 315 NW: 165

2.C ADDITIONAL INFORMATION:

T=CI=5.5

DURING THE LAST SIX HOURS, DARIAN'S EYE PATTERN HAS IMPROVED. THE INTENSITY IS RAISED TO 90KT MAINLY BASED ON SUBJECTIVE DVORAK ANALYSIS GIVING A DT UP TO 5.5, THUS REMAINING SLIGHTLY BELOW THE SATCON ESTIMATE.

DARIAN HAS SLOWED ITS SOUTHWARD MOTION AND IS NOW ABOUT TO TURN SOUTHWESTWARDS DUE TO A NEWLY BUILDING SUBTROPICAL RIDGE WHICH WILL GRADUALLY START TO TAKE HOLD OF THE STEERING FLOW. ITS SOUTHWESTERLY MOTION WILL THEN ACCELERATE STARTING TOMORROW. FROM SATURDAY ONWARDS, THE SYSTEM SHOULD MOVE SOUTH OF 30S WHILE BEING ATTRACTED BY A MID-LATITUDE TROUGH ON A TRACK TURNING SOUTH THEN SOUTHEAST.

ENVIRONMENTAL CONDITIONS HAVE IMPROVED SLIGHTLY SINCE LAST NIGHT THANKS TO DECREASING WIND SHEAR. WHILE STILL OVER QUITE WARM SST TODAY, DARIAN COULD THUS REMAIN AT OR NEAR INTENSE TROPICAL CYCLONE STAGE THIS MONDAY. FROM TOMORROW TUESDAY, STRENGTHENING NORTHERLY SHEAR AND DECREASING OCEANIC POTENTIAL (SST DROPPING BELOW 26C) SHOULD LEAD TO STEADY WEAKENING. ON SATURDAY, WHILE PASSING SOUTH OF 30S, DARIAN SHOULD START ITS EXTRATROPICALIZATION AHEAD OF AN UPPER TROUGH AND THUS BECOME POST-TROPICAL.