

WTIO30 FMEE 301225

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 37/4/20222023

1.A POST-TROPICAL DEPRESSION 4 (EX-DARIAN)

2.A POSITION 2022/12/30 AT 1200 UTC:

WITHIN 10 NM RADIUS OF POINT 28.2 S / 69.1 E

(TWENTY EIGHT DECIMAL TWO DEGREES SOUTH AND
SIXTY NINE DECIMAL ONE DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 991 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 45 KT

RADIUS OF MAXIMUM WINDS (RMW): 93 KM

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

28 KT NE: 510 SE: 535 SW: 530 NW: 285

34 KT NE: 350 SE: 350 SW: 350 NW: 215

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1013 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/12/31 00 UTC: 30.5 S / 67.9 E, VENT MAX= 045 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 380 SE: 455 SW: 315 NW: 185

34 KT NE: 175 SE: 305 SW: 220 NW: 100

24H: 2022/12/31 12 UTC: 32.9 S / 68.2 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 370 SE: 400 SW: 325 NW: 0

34 KT NE: 155 SE: 280 SW: 155 NW: 0

36H: 2023/01/01 00 UTC: 35.0 S / 69.4 E, VENT MAX= 040 KT, EXTRATROPICAL
DEPRESSION

28 KT NE: 370 SE: 335 SW: 175 NW: 185

34 KT NE: 155 SE: 260 SW: 150 NW: 75

48H: 2023/01/01 12 UTC: 37.2 S / 72.5 E, VENT MAX= 040 KT, EXTRATROPICAL
DEPRESSION

28 KT NE: 425 SE: 295 SW: 175 NW: 215

34 KT NE: 185 SE: 240 SW: 150 NW: 110

60H: 2023/01/02 00 UTC: 39.5 S / 77.6 E, VENT MAX= 035 KT, EXTRATROPICAL

DEPRESSION

28 KT NE: 490 SE: 295 SW: 175 NW: 205

34 KT NE: 220 SE: 250 SW: 150 NW: 65

72H: 2023/01/02 12 UTC: 42.3 S / 83.6 E, VENT MAX= 035 KT, EXTRATROPICAL
DEPRESSION

28 KT NE: 520 SE: 280 SW: 165 NW: 95

34 KT NE: 230 SE: 250 SW: 140 NW: 0

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

DURING THE LAST 6 HOURS, THE SYSTEM HAS EVOLVED LITTLE IN ITS STRUCTURE. CONVECTION IS STILL WEAK, AND MAINLY PRESENT IN THE SOUTHERN SEMICIRCLE.

SATELLITE IMAGERY CONTINUES TO SHOW A LOW-LEVEL CENTER AND THE NORTHERN SEMICIRCLE OF THE CIRCULATION EXPOSED.

THE SAR AND SMOS PASSES OF 00H48UTC AND 01H46UTC, GIVE MAXIMUM WINDS CLOSE TO 50KT (1 MINUTE) LOCATED IN THE SOUTHERN SEMICIRCLE.

THE SYSTEM IS STARTING ITS EXTRA-TROPICAL TRANSITION, AND IS CLASSIFIED AS A POST-TROPICAL SYSTEM WITH WINDS OF 45KT.

LITTLE CHANGE IN TERMS OF TRACK FORECAST: DARIAN WILL CONTINUE TO MOVE SOUTHWESTWARD UNTIL SATURDAY AS THE WESTERN EDGE OF THE SUBTROPICAL RIDGE WEAKENS.

FROM SATURDAY ONWARDS, IT SHOULD BEGIN A SOUTHEASTWARD TURN ALONG THE EDGE OF A MID-LATITUDE TROUGH APPROACHING FROM THE WEST, SHOWING A CLEAR ACCELERATION. ON THIS TRACK, EX-DARIAN SHOULD PASS AT ABOUT 130 KM, SOUTHWEST OF AMSTERDAM ISLAND DURING THE NIGHT OF JANUARY 01 TO 2.

DESPITE A DECREASING OCEANIC POTENTIAL (AROUND 25°C) AND THE PRESENCE OF DRY AIR TO THE NORTH OF THE SYSTEM, EX-DARIAN WILL SLOWLY WEAKEN, TAKING ADVANTAGE OF THE PERSISTENCE OF A GOOD ALTITUDE DIVERGENCE TO THE SOUTH. THEN, DURING THIS WEEKEND, BY GRADIENT EFFECT, WITH A MORE MARKED ASYMMETRY OF WINDS, THE PROGRESSIVE INTERACTION WITH A MID-LATITUDE TROUGH, WILL DEFINITELY LEAD THE SYSTEM TO LOSE ITS TROPICAL CHARACTERISTICS.

THIS IS THE LAST MONITORING BULLETIN FOR THIS SYSTEM. IT WILL BE FOLLOWED BY THE FQIO20 FMEE BULLETIN.