

WTIO30 FMEE 060707

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/2/20222023

1.A TROPICAL DEPRESSION 2

2.A POSITION 2022/10/06 AT 0600 UTC:

WITHIN 30 NM RADIUS OF POINT 9.5 S / 86.5 E

(NINE DECIMAL FIVE DEGREES SOUTH AND

EIGHTY SIX DECIMAL FIVE DEGREES EAST)

MOVEMENT: SOUTH-WEST 3 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 1000 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 0 SE: 465 SW: 370 NW: 185

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/10/06 18 UTC: 10.0 S / 86.0 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 0 SE: 370 SW: 240 NW: 0

24H: 2022/10/07 06 UTC: 10.7 S / 85.5 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 0 SE: 370 SW: 240 NW: 0

36H: 2022/10/07 18 UTC: 11.9 S / 85.0 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 150 SE: 350 SW: 240 NW: 110

48H: 2022/10/08 06 UTC: 13.5 S / 85.4 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 150 SE: 455 SW: 240 NW: 110

34 KT NE: 0 SE: 110 SW: 110 NW: 0

60H: 2022/10/08 18 UTC: 15.0 S / 85.9 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 165 SE: 185 SW: 280 NW: 130

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

72H: 2022/10/09 06 UTC: 15.9 S / 86.2 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 150 SE: 150 SW: 280 NW: 220

34 KT NE: 0 SE: 0 SW: 185 NW: 150

2.B LONGER-RANGE OUTLOOK:

96H: 2022/10/10 06 UTC: 15.8 S / 85.0 E, VENT MAX= 035 KT, POST-TROPICAL DEPRESSION

28 KT NE: 0 SE: 465 SW: 370 NW: 0

34 KT NE: 0 SE: 280 SW: 185 NW: 0

120H: 2022/10/11 06 UTC: 15.2 S / 82.7 E, VENT MAX= 025 KT, REMNANT LOW

2.C ADDITIONAL INFORMATION:

T=CI=2.5-

DURING THE LAST 24 HOURS AND ESPECIALLY AT THE END OF THE NIGHT, THE CONVECTIVE ACTIVITY STRENGTHENED IN THE WESTERN SEMICIRCLE. THIS MORNING, THE CORE OF THE CIRCULATION APPEARS EXPOSED ON SATELLITE IMAGES UNDER THE EFFECT OF A STRONG NORTH-EASTERLY SHEAR. 0351Z ASCAT PASS AND 0426Z GMI MICROWAVE DATA CONFIRM THIS STRUCTURE. THE MAXIMUM WINDS EXCEED 30KT ESPECIALLY IN THE WESTERN SEMICIRCLE.

SINCE THE END OF THE NIGHT, THE SYSTEM 02 HAS BEEN MOVING VERY SLOWLY TOWARDS THE SOUTH-WEST BECAUSE OF CONTRADICTORY LOW-LEVEL STEERING FLOWS WITH THE EQUATORIAL WESTERLY TO THE NORTH AND AN EAST-NORTHEASTERLY FLOW ON THE SOUTHERN SIDE. IN THE NEXT 48 HOURS, THE LATTER SHOULD STRENGTHEN AND SHIFT TO THE NORTHEAST WITH THE TRANSIT OF A BAROMETRIC COL TO THE SOUTH, WHILE THE SYSTEM WILL BE MORE AND MORE DISTANT FROM THE EQUATORIAL WESTERLY. IT SHOULD THUS SLIGHTLY ACCELERATE SOUTHWARD THEN SOUTH-SOUTHEASTWARD. AT THE END OF THE PERIOD, A NEW HIGH-PRESSURE CELL WILL APPROACH FROM THE SOUTHWEST AND WILL FAVOR THE RENEWAL OF A WESTWARD TRACK.

THE ENVIRONMENTAL CONDITIONS REMAIN FOR THE MOMENT RATHER UNFAVORABLE TO A NOTABLE INTENSIFICATION WITH THE STRONG SHEAR. THE LOW-LEVEL CONVERGENCE ON THE EQUATORIAL SIDE SHOULD EVEN WEAKEN TOMORROW. ON SATURDAY, ITS ACCELERATION AND THE STRENGTHENING OF THE UPPER LEVEL DIVERGENCE COULD ON THE OTHER HAND ALLOW THE DEEPENING TO THE MODERATE TROPICAL STORM STAGE. HOWEVER THIS FAVORABLE WINDOW SHOULD NOT LAST. FROM SUNDAY ONWARDS, AHEAD OF A TROUGH IN THE MID-TROPOSPHERE, THE NORTH-WESTERLY SHEAR SHOULD STRENGTHEN AND ALTER THE SYSTEM STRUCTURE. IT COULD THEN LOSE SOME OF ITS TROPICAL CHARACTERISTICS. AT THE BEGINNING OF NEXT WEEK IN A DRY ENVIRONMENT IN THE MIDDLE TROPOSPHERE, THE SYSTEM SHOULD START TO FILL UP.