

WTIO30 FMEE 220048

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 2/1/20212022

1.A TROPICAL DISTURBANCE 1

2.A POSITION 2022/01/22 AT 0000 UTC:

WITHIN 30 NM RADIUS OF POINT 18.2 S / 53.1 E

(EIGHTEEN DECIMAL TWO DEGREES SOUTH AND  
FIFTY THREE DECIMAL ONE DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 16 KT

3.A DVORAK ANALYSIS: 2.0/2.0/D 0.5/24 H

4.A CENTRAL PRESSURE: 1002 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 25 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

NIL

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: NIL

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/01/22 12 UTC: 17.6 S / 49.4 E, VENT MAX= 030 KT, TROPICAL DEPRESSION  
28 KT NE: 0 SE: 250 SW: 195 NW: 0

24H: 2022/01/23 00 UTC: 16.3 S / 47.0 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

36H: 2022/01/23 12 UTC: 15.4 S / 45.7 E, VENT MAX= 025 KT, ZONE OF DISTURBED  
WEATHER

48H: 2022/01/24 00 UTC: 14.9 S / 44.1 E, VENT MAX= 030 KT, TROPICAL DEPRESSION  
28 KT NE: 100 SE: 250 SW: 195 NW: 0

60H: 2022/01/24 12 UTC: 14.9 S / 42.3 E, VENT MAX= 035 KT, MODERATE TROPICAL  
STORM

28 KT NE: 130 SE: 250 SW: 195 NW: 0

34 KT NE: 100 SE: 120 SW: 130 NW: 0

72H: 2022/01/25 00 UTC: 15.3 S / 40.4 E, VENT MAX= 035 KT, MODERATE TROPICAL  
STORM

28 KT NE: 140 SE: 250 SW: 195 NW: 0

34 KT NE: 110 SE: 120 SW: 130 NW: 0

2.B LONGER-RANGE OUTLOOK:

96H: 2022/01/26 00 UTC: 16.7 S / 38.1 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 165 SE: 250 SW: 195 NW: 0

34 KT NE: 0 SE: 120 SW: 130 NW: 0

120H: 2022/01/27 00 UTC: 18.1 S / 36.5 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 205 SE: 250 SW: 195 NW: 0

34 KT NE: 0 SE: 120 SW: 130 NW: 0

2.C ADDITIONAL INFORMATION:

T=CI=2.0

THE CONVECTIVE ACTIVITY OF THIS SYSTEM, AFTER HAVING FLUCTUATED A LOT DURING THE EVENING AND THE FIRST PART OF THE NIGHT, IS EXPERIENCING A RENEWED ACTIVITY AT THE END OF THE NIGHT. COMPARED TO 24 HOURS AGO, THE CLOUD PATTERN HAS IMPROVED WITH INTENSE CONVECTION WITH PERIPHERAL BANDS SHOWING CURVATURE VISIBLE AT THE EDGE OF THE SCOPE OF THE COLORADO RADAR. THE SEQUENCE OF AMSR2 AND GPM IMAGERS AROUND 22Z-23Z SHOWS A CENTER STILL QUITE ILL-DEFINED AND ELONGATED ALTHOUGH A LITTLE BETTER DEFINED THAN BEFORE. FOR LACK OF MORE OBJECTIVE DATA TO ESTIMATE THE INTENSITY OF THE SYSTEM, THE INTENSITY ANALYSIS IS BASED ON THE DVORAK METHOD.

THE ENVIRONMENT OF THIS SYSTEM REMAINS COMPLEX WITH THE PRESENCE OF A SECONDARY POLE OF VORTICITY WHICH IS BEING FORMED TO THE NORTHEAST OF THE PRESENT SYSTEM, BETWEEN AGALEGA AND TROMELIN, WITHIN A VAST LOW PRESSURE AREA PRESENT TO THE EAST OF MADAGASCAR.

IN TERMS OF TRACKS, THIS SMALL SYSTEM IS STILL GRAVITATING IN THE SHORT TERM IN THE CLOCKWISE DIRECTION WITHIN THE LARGE DEPRESSION AREA. ITS TRAJECTORY WILL THUS TURN WEST-NORTHWEST DURING SATURDAY BEFORE TOUCHING THE EAST COAST OF MADAGASCAR. ON SUNDAY DURING THE DAY, THE SECONDARY MINIMUM ASSOCIATED WITH THIS LARGE LOW-PRESSURE AREA IS ALSO EXPECTED TO MOVE INLAND BETWEEN ANTALAHA AND SAINTE-MARIE ISLAND.

ON SUNDAY DURING THE DAY, THIS LARGE LOW PRESSURE AREA SHOULD EMERGE OVER THE NORTH OF THE CHANNEL AND THEN MOVE TOWARDS THE MOZAMBICAN COASTS IN A LOW TO MID EASTERLY STEERING FLOW THEN TURNING NORTHEASTERLY. THE CONFIDENCE IN THE TRACK PREDICTION, ALTHOUGH INCREASING (SLIGHTLY MORE CONVERGENT SOLUTIONS OF THE MODELS), REMAINS LOW.

IN TERMS OF INTENSITY, THE POSSIBILITIES OF SHORT TERM DEVELOPMENT ARE ESSENTIALLY THWARTED BY THE ORIGINAL LOW LEVEL ENVIRONMENT WITH THE PRESENCE OF THIS SECONDARY MINIMUM, THWARTING THE LOW LEVEL CONVERGENCE. AN EASTERLY CONSTRAINT STILL EXISTS BUT IS DECREASING. FROM SUNDAY MONDAY, THE CONDITIONS APPEAR RATHER FAVORABLE OVER THE NORTH OF THE CHANNEL FOR A DEVELOPMENT (STRONG OCEANIC POTENTIAL, GOOD MONSOON SUPPLY) WITHOUT BEING COMPLETELY OPTIMAL WITH THE PROBABLE PERSISTENCE OF AN EASTERLY CONSTRAINT. THE INTENSITY FORECAST

IS QUITE CLOSE TO THE LAST AVAILABLE GUIDANCE.

EXPECTED CONSEQUENCES ON INHABITED LANDS :

- OVER MADAGASCAR, RAINFALL TOTALS OF MORE THAN 100 MM BETWEEN ÎLE SAINTE-MARIE IN THE NORTH AND MAHANORO IN THE SOUTH (SIGNIFICANTLY MORE OVER THE PLATEAUS) DURING THE NEXT 24 HOURS. THE RAINS CONTINUE ON SUNDAY. WIND GUSTS TO 90 KM/H POSSIBLE NEAR THE IMPACT AREA.

- NORTH MOZAMBIC CHANNEL (COMOROS-MOZAMBIQUE ARCHIPELAGO): POTENTIALLY SIGNIFICANT RAINY AND WINDY DEGRADATION FROM SUNDAY (COMOROS ARCHIPELAGO) - MONDAY EVENING FOR MOZAMBIQUE.