

WTIO30 FMEE 220616

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/1/20212022

1.A TROPICAL DEPRESSION 1

2.A POSITION 2022/01/22 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 18.4 S / 50.8 E

(EIGHTEEN DECIMAL FOUR DEGREES SOUTH AND
FIFTY DECIMAL EIGHT DEGREES EAST)

MOVEMENT: WEST 20 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/6 H

4.A CENTRAL PRESSURE: 1000 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 28 KM

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

28 KT NE: 0 SE: 0 SW: 35 NW: 35

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

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/01/22 18 UTC: 17.4 S / 48.1 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

24H: 2022/01/23 06 UTC: 16.2 S / 46.5 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

36H: 2022/01/23 18 UTC: 15.5 S / 44.5 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

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

48H: 2022/01/24 06 UTC: 15.3 S / 42.6 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

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

34 KT NE: 85 SE: 0 SW: 0 NW: 0

60H: 2022/01/24 18 UTC: 15.5 S / 40.6 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 120 SE: 120 SW: 0 NW: 0

34 KT NE: 95 SE: 0 SW: 0 NW: 0

72H: 2022/01/25 06 UTC: 15.9 S / 39.4 E, VENT MAX= 035 KT, OVERLAND DEPRESSION

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

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

2.B LONGER-RANGE OUTLOOK:

96H: 2022/01/26 06 UTC: 17.1 S / 37.6 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
28 KT NE: 155 SE: 155 SW: 0 NW: 0

120H: 2022/01/27 06 UTC: 18.5 S / 36.1 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
28 KT NE: 195 SE: 195 SW: 0 NW: 0

2.C ADDITIONAL INFORMATION:

T=CI=2.5

DURING THE LAST 6H, THE CONVECTIVE ACTIVITY OF THE SYSTEM 01-20212022 WAS WELL MAINTAINED MIGRATING PROGRESSIVELY IN A CLOUDY CONFIGURATION IN CURVED BAND. THE CONVECTIVE ACTIVITY IS ALREADY WELL PRESENT ON MADAGASCAR BEFORE THE FUTURE LANDING OF THE SYSTEM. FEW NEW MICROWAVE OR SCATTEROMETER DATA ALLOWING TO REFINE THE ANALYSIS OF THE SYSTEM. THE DVORAK ESTIMATE MADE AT 06UTC ALLOWS TO ESTIMATE WINDS OF 30KT FOR THIS SYSTEM CLASSIFIED AS A TROPICAL DEPRESSION 30KT.

LITTLE CHANGE FOR THE MOMENT, WITH A COMPLEX ENVIRONMENT WITH THE PRESENCE OF A SECONDARY POLE OF VORTICITY NEAR TROMELIN ISLAND, WITHIN A VAST LOW PRESSURE AREA PRESENT TO THE EAST OF MADAGASCAR.

IN TERMS OF TRACKS, THIS SYSTEM IS STILL GRAVITATING IN THE SHORT TERM IN THE CLOCKWISE DIRECTION WITHIN THE LARGE DEPRESSION ZONE. ITS TRACK WILL THUS TURN TOWARDS THE WEST-NORTH-WEST DURING SATURDAY BEFORE TOUCHING THE EAST COAST OF MADAGASCAR THIS SATURDAY. 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 MOZAMBIKAN COASTS IN A LOW TO MID TROPIC EASTERLY THEN NORTHEASTERLY DIRECTION. IN THE LONGER TERM, THE RSMC FORECAST FORESEES A LANDING OF THE SYSTEM ON THE AFRICAN COASTS BUT WITH A TRACK TANGENT TO THE COASTS. THIS SITUATION LEAVES A WIND POTENTIAL CLOSE TO 30/35KT ALONG THE COASTS AT SEA.

IN TERMS OF INTENSITY, THE POSSIBILITIES OF SHORT TERM DEVELOPMENT ARE ESSENTIALLY THWARTED BY THE ORIGINAL LOW LEVEL ENVIRONMENT WITH THE PRESENCE OF THE SECONDARY MINIMUM, THWARTING THE LOW LEVEL CONVERGENCE. A LANDING AT THE STAGE OF TROPICAL DEPRESSION IS MAINTAINED FOR THE MOMENT BY THE RSMC. 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. THE FORECAST INTENSITY IS QUITE FAITHFUL TO THE LAST AVAILABLE GUIDANCE. A LANDING ON THE AFRICAN COASTS AT THE STAGE OF A MODERATE TROPICAL STORM IS THUS EXPECTED ON MONDAY AT THE END OF THE DAY.

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.