

WTIO30 FMEE 230713

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 7/1/20212022

1.A TROPICAL DISTURBANCE 1

2.A POSITION 2022/01/23 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 15.6 S / 45.1 E

(FIFTEEN DECIMAL SIX DEGREES SOUTH AND
FORTY FIVE DECIMAL ONE DEGREES EAST)

MOVEMENT: NORTH-WEST 10 KT

3.A DVORAK ANALYSIS: NIL

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): 1007 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/01/23 18 UTC: 15.3 S / 43.6 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 0 SE: 110 SW: 0 NW: 0

24H: 2022/01/24 06 UTC: 15.7 S / 41.3 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

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

34 KT NE: 0 SE: 75 SW: 0 NW: 0

36H: 2022/01/24 18 UTC: 15.7 S / 38.4 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

48H: 2022/01/25 06 UTC: 16.1 S / 36.3 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

60H: 2022/01/25 18 UTC: 16.2 S / 34.4 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

72H: 2022/01/26 06 UTC: 16.4 S / 33.2 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:

96H: 2022/01/27 06 UTC: 16.8 S / 30.2 E, VENT MAX= 015 KT, FILLING UP

120H: 2022/01/28 06 UTC: 16.8 S / 26.6 E, VENT MAX= 015 KT, REMNANT LOW

2.C ADDITIONAL INFORMATION:

T=CI=NIL

THE TROPICAL DISTURBANCE 01-20212022 HAS JUST ENTERED IN THE MOZAMBIQUE CHANNEL, JUST NORTH OF CAPE SAINT ANDRE. THE LAST VISIBLE IMAGES SHOW A CLEAR IMPROVEMENT OF THE CLOUD PATTERN WITH A NICE CURVED BAND IN THE NORTHWESTERN SECTOR OF THE CIRCULATION, SHOWING A SUSTAINED THUNDERSTORM ACTIVITY. THE LATEST PRESSURE OBSERVATIONS AT BESALAMPY (NEAR THE SUPPOSED CENTER OF THE SYSTEM) ARE AROUND 1002 HPA. THE AVERAGE WIND INTENSITY IS ESTIMATED AT 25 KNOTS.

THE SYSTEM IS CURRENTLY IS TRACKING NORTHWESTWARD UNDER THE EFFECT OF A LOW-LEVEL EASTERLY FLOW GENERATED BY THE HIGH GEOPOTENTIALS OF THE LOW AND MIDDLE TROPOSPHERE STRENGTHENING SOUTH OF THE MOZAMBIQUE CHANNEL. NEXT WEEK, THE SYSTEM WILL HEAD TOWARDS THE MOZAMBIKAN COASTS, WHICH IT WILL REACH ON MONDAY MIDDAY. THEN, WITH THE SHIFT OF THE HIGH GEOPOTENTIALS TO THE SOUTHEAST OF MADAGASCAR, THE STEERING FLOW WILL TAKE AN EAST-NORTHEASTERLY COMPONENT, TAKING THE SYSTEM LONGER INLAND FROM MOZAMBIQUE. THEN THE REMNANT LOW WILL TRACK NEAR SOUTHERN MALAWI AND NORTHERN ZIMBABWE BY MIDWEEK. THE CMRS FORECAST IS BASED ON A CONSENSUS BETWEEN THE BEST AVAILABLE GUIDANCE, WHOSE DISPERSION IS DECREASING COMPARED TO THE PREVIOUS NWP OUTPUT, INDUCING A FAIRLY GOOD CONFIDENCE ON THE TRACK.

IN TERMS OF INTENSITY, THE SYSTEM SHOULD FIND TODAY MORE CONDUCIVE ENVIRONMENTAL CONDITIONS FOR ITS DEVELOPMENT, UNTIL MONDAY, THE DAY OF ITS LANDING ON THE MOZAMBIKAN COAST. IT IS CURRENTLY FINDING A STRONG OCEANIC POTENTIAL IN THE NORTH OF THE CHANNEL COMBINED WITH A GOOD CONVERGENCE OF LOW LAYERS BETWEEN THE MONSOON FLOW IN THE NORTH OF THE CHANNEL AND A SOUTHERN FLOW GOING UP IN THE SOUTHERN PART OF THE CHANNEL. IN A MOIST TROPOSPHERIC ENVIRONMENT, THIS SYSTEM SHOULD THEREFORE DEEPEN QUITE RAPIDLY. HOWEVER, THE PRESENCE OF A MODERATE SHEAR ALOFT COULD SLOW DOWN THIS DEVELOPMENT, EVEN IF THE MOVEMENT OF THE SYSTEM AT ABOUT 10KT IN THE DIRECTION OF THE SHEAR CAN REDUCE THE EFFECTS. THUS, A RELATIVELY RAPID DEVELOPMENT IS CONSIDERED TO REACH THE MODERATE TROPICAL STORM STAGE. THE STAGE OF SEVERE TROPICAL STORM JUST BEFORE THE LANDING ON THE MOZAMBIKAN COASTS IS NOT EXCLUDED, EVEN IF THIS SCENARIO IS LESS SUPPORTED BY THE LAST GUIDANCE. THIS INTENSITY PREDICTION IS THEREFORE MARKED BY A SMALL UNCERTAINTY. ONCE ON LAND, THERE IS A FAIRLY GOOD CONFIDENCE THAT THE WINDS OF THE SYSTEM WILL PROGRESSIVELY WEAKEN, EVEN IF SUSTAINED NORTH TO NORTHWEST WINDS WILL CONTINUE TO FOLLOW THE MOZAMBIKAN COAST UNTIL TUESDAY OR WEDNESDAY, QUITE FAR FROM THE CORE'S SYSTEM.

EXPECTED CONSEQUENCES ON THE INHABITED LANDS :

- MADAGASCAR : THE HEAVY RAINS ALREADY PRESENT WILL CONTINUE TODAY AND MONDAY WITH SOMETIMES VERY HEAVY ACCUMULATIONS OVER THE NORTHWEST, NORTH AND EASTERN PLATEAUS. STRONG GUSTS ARE LIKELY OVER THE WEST BETWEEN ANTSIRANANA AND CAPE SAINT-ANDRE TODAY.
- MOZAMBIQUE (AND NEIGHBORING COUNTRIES INLAND): COASTAL GUSTS OF MORE THAN 100 KM/H POSSIBLE TODAY AND ESPECIALLY ON MONDAY WHEN THE SYSTEM LANDS BETWEEN ANGOCHE AND MOZAMBIQUE ISLAND. HEAVY RAINFALL NORTH OF QUELIMANE AT FIRST THEN FURTHER INLAND TO SOUTH OF MALAWI

OVERFLOWING TO CENTRAL MOZAMBIQUE.

- CENTRAL AND NORTHERN CHANNEL (JUAN DE NOVA, COMOROS ARCHIPELAGO) :
POTENTIALLY SIGNIFICANT RAINY AND WINDY DEGRADATION FROM TODAY
ONWARDS AT THE EDGE OF THE SYSTEM WITH THE SYSTEM EXITING INTO THE
CHANNEL. GUSTS COULD APPROACH 100 KM/H OR EVEN 110 KM/H ON JUAN DE
NOVA AND 70/80 KM/H ON MAYOTTE.