

WTIO30 FMEE 050110

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/14/20202021

1.A TROPICAL DEPRESSION 14

2.A POSITION 2021/03/05 AT 0000 UTC:

WITHIN 40 NM RADIUS OF POINT 17.0 S / 41.7 E

(SEVENTEEN DECIMAL ZERO DEGREES SOUTH AND
FORTY ONE DECIMAL SEVEN DEGREES EAST)

MOVEMENT: EAST-NORTH-EAST 3 KT

3.A DVORAK ANALYSIS: 2.0/2.0/D 1.0/24 H

4.A CENTRAL PRESSURE: 998 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: 185 SE: 110 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/03/05 12 UTC: 17.8 S / 43.9 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 85 SE: 95 SW: 35 NW: 75

34 KT NE: 35 SE: 85 SW: 30 NW: 65

24H: 2021/03/06 00 UTC: 18.7 S / 46.5 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

36H: 2021/03/06 12 UTC: 20.1 S / 50.9 E, VENT MAX= 025 KT, ZONE OF DISTURBED
WEATHER

48H: 2021/03/07 00 UTC: 21.9 S / 54.1 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 165 SE: 95 SW: 35 NW: 130

60H: 2021/03/07 12 UTC: 23.8 S / 56.6 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 185 SE: 95 SW: 75 NW: 150

34 KT NE: 100 SE: 85 SW: 65 NW: 110

72H: 2021/03/08 00 UTC: 25.6 S / 59.0 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 230 SE: 130 SW: 120 NW: 155

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

2.B LONGER-RANGE OUTLOOK:

96H: 2021/03/09 00 UTC: 29.0 S / 62.5 E, VENT MAX= 035 KT, POST-TROPICAL DEPRESSION

28 KT NE: 155 SE: 250 SW: 165 NW: 175

34 KT NE: 85 SE: 240 SW: 155 NW: 65

120H: 2021/03/10 00 UTC: 30.8 S / 63.1 E, VENT MAX= 025 KT, FILLING UP

2.C ADDITIONAL INFORMATION:

T=CI=2.0

RECENT MICROWAVE IMAGES (GPM 2208Z) SHOW THAT THE CENTER REMAINS OUT OF PHASE SOUTHWEST OF THE MAIN CONVECTION. HOWEVER, PRESSURE OBSERVATIONS OF JUAN DE NOVA (1000.7 HPA AT 00Z) SHOW A CONTINUOUS DECREASE SINCE THE BEGINNING OF THE EVENING AND OBSERVATIONS FROM A BOAT PRESENT SOUTHWEST OF THE ISLAND HAVE GIVEN TEMPORARY WINDS AT 30 KT. THE INTENSITY IS INCREASED TO 30 KT. IT IS LIKELY THAT THE CENTER WILL SOON REFORM MORE EASTWARD AND MORE IN PHASE WITH THE DEEP CONVECTION.

DURING THE NEXT 24 HOURS, THE 14-202021 SYSTEM, DRIVEN BY THE MONSOON FLOW, WILL CONTINUE ITS PROGRESSION TOWARDS EAST-SOUTHEAST AND LAND ON THE MALAGASY WEST COAST, SOUTH OF THE MELAKY DISTRICT TOWARDS THE CITY OF MAINTIRANO. THE SYSTEM SHOULD THEN COME OUT ON THE MALAGASY EAST COAST ON SATURDAY DURING THE DAY. THE SYSTEM WILL CONTINUE ITS TRACK TOWARDS THE EAST-SOUTHEAST BUT THIS TIME MORE UNDER THE INFLUENCE OF THE EXTRATROPICAL DYNAMICS. AT THE BEGINNING OF NEXT WEEK, THE SYSTEM IS PICKED UP BY A MID-LATITUDE TROUGH, IN A NORTH-WESTERLY FLOW AND EVACUATES TOWARDS THE MID-LATITUDES.

THE TROPICAL DEPRESSION EVOLVES TODAY IN MORE FAVOURABLE CONDITIONS THAN INITIALLY ENVISAGED UNDER THE UPPER LEVELS RIDGE AND WITH AN EXCELLENT DIVERGENCE FAVOURED BY TWO EVACUATION CHANNELS TO THE NORTH AND SOUTH. THE SYSTEM IS EXPECTED TO INTENSIFY UP TO THE TROPICAL STORM STAGE BEFORE MAKING LANDFALL IN THE MELAKY DISTRICT (TOWARDS THE CITY OF MAINTIRANO). THE SYSTEM SHOULD THEN WEAKEN QUITE RAPIDLY ON LAND. THE SEA LANDING ON SATURDAY MORNING WILL BE ACCOMPANIED BY A MUCH MORE BAROCLINIC ENVIRONMENT INTERACTING WITH A BRANCH OF THE SUBTROPICAL JET. SHEAR AND DRY AIR INTRUSION COULD GIVE HYBRID CHARACTERISTICS TO THE SYSTEM BY THAT TIME. IN CONTINUITY WITH THE PREVIOUS PREDICTION, THE SYSTEM IS CHARACTERIZED AS TROPICAL IN A FIRST TIME BEFORE THE BEGINNING OF THE EXTRATROPICAL TRANSITION BUT IT IS POSSIBLE THAT MOST OF THE RE-DEEPENING IS OF BAROCLINIC ORIGIN.

IN TERMS OF IMPACT, FOR MADAGASCAR, WE CAN EXPECT:

-RAINFALL: IN THE NEXT 24 HOURS, ACCUMULATIONS OF 100 TO 150 MM ARE POSSIBLE OVER THE CENTRAL WEST OF MADAGASCAR AND FAR INLAND.

-WINDS: GUSTS FROM 100 KM/H TO 120 KM/H ARE POSSIBLE NEAR WHERE THE CENTER WILL LAND. STRONG WINDS OF UP TO 100 KM/H WILL ALSO BE FELT QUITE FAR NORTH OF THE CENTER.

- MINOR COASTAL FLOODING IS LIKELY TO OCCUR NORTH OF THE LANDING AREA.

FOR MASCARENES:

A RAINY AND WINDY DEGRADATION OF THE WEATHER CONDITIONS, QUITE SHORT, SHOULD SPREAD TO THE MASCARENES (LA REUNION ESSENTIALLY) ON SATURDAY EVENING OR SUNDAY MORNING. ITS AMPLITUDE REMAINS TO BE SPECIFIED.