

WTIO30 FMEE 160650
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/11/20202021

1.A TROPICAL DISTURBANCE 11

2.A POSITION 2021/02/16 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 21.4 S / 35.4 E

(TWENTY ONE DECIMAL FOUR DEGREES SOUTH AND
THIRTY FIVE DECIMAL FOUR DEGREES EAST)

MOVEMENT: EAST 5 KT

3.A DVORAK ANALYSIS: 1.5/1.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 995 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): 1003 HPA / 1100 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/16 18 UTC: 20.9 S / 35.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 45 SE: 100 SW: 75 NW: 85

24H: 2021/02/17 06 UTC: 20.3 S / 36.4 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 95 SE: 185 SW: 185 NW: 110

34 KT NE: 85 SE: 65 SW: 85 NW: 55

36H: 2021/02/17 18 UTC: 21.3 S / 37.3 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 130 SE: 165 SW: 85 NW: 110

34 KT NE: 100 SE: 75 SW: 10 NW: 85

48H: 2021/02/18 06 UTC: 22.3 S / 37.4 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 175 SE: 195 SW: 95 NW: 120

34 KT NE: 120 SE: 100 SW: 20 NW: 95

60H: 2021/02/18 18 UTC: 23.2 S / 37.2 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 185 SE: 205 SW: 95 NW: 45

34 KT NE: 120 SE: 110 SW: 30 NW: 35

72H: 2021/02/19 06 UTC: 23.9 S / 36.6 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 185 SE: 100 SW: 75 NW: 55
34 KT NE: 120 SE: 55 SW: 55 NW: 45
48 KT NE: 35 SE: 45 SW: 45 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2021/02/20 06 UTC: 25.2 S / 35.6 E, VENT MAX= 075 KT, TROPICAL CYCLONE
28 KT NE: 205 SE: 195 SW: 95 NW: 95
34 KT NE: 110 SE: 100 SW: 65 NW: 75
48 KT NE: 65 SE: 45 SW: 55 NW: 45
64 KT NE: 55 SE: 35 SW: 35 NW: 35

120H: 2021/02/21 06 UTC: 28.4 S / 36.7 E, VENT MAX= 080 KT, TROPICAL CYCLONE
28 KT NE: 230 SE: 215 SW: 155 NW: 140
34 KT NE: 120 SE: 100 SW: 95 NW: 95
48 KT NE: 70 SE: 60 SW: 60 NW: 50
64 KT NE: 60 SE: 40 SW: 40 NW: 40

2.C ADDITIONAL INFORMATION:

T=CI=1.5

THE LOW PRESSURE AREA THAT HAS BEEN MONITORED FOR SEVERAL DAYS INLAND OF MOZAMBIQUE IS NOW EMERGING INTO THE MOZAMBIQUE CHANNEL. THE MICROWAVE IMAGERY OF 0339Z AND THE CLASSICAL SATELLITE IMAGES SHOW A CENTER STILL BADLY CONSOLIDATED. THE VISIBLE SATELLITE IMAGE OF 0600Z SUGGESTS THAT THE SYSTEM IS LOCATED IN THE NORTHERN VICINITY OF THE ISLAND OF BAZARUTO. THE VERY LOW ENVIRONMENTAL PRESSURES MAKE THE ESTIMATED CENTRAL PRESSURE MUCH LOWER THAN THE PRESSURE USUALLY EXPECTED FOR A TROPICAL DISTURBANCE.

THE SYSTEM MOVES NORTHEASTWARD IN THE MOZAMBIQUE CHANNEL AT THE BEGINNING OF ITS LIFE CYCLE, UNDER THE COMBINED INFLUENCE OF A LOW-LEVEL SOUTHWARD SURGE ON THE EDGE OF THE SOUTH AFRICAN SURFACE HIGH AND THE WESTERLY FLOW ESTABLISHED AT ABOUT 700HPA AT THE MARGIN OF THE NEAR-EQUATORIAL RIDGE. THE PRESENCE OF A SECONDARY MINIMUM TO THE SOUTHEAST OF THE SYSTEM COULD TEMPORARILY INFLUENCE ITS TRACK UNTIL THURSDAY. FROM THURSDAY, A SUBTROPICAL RIDGE REBUILDS TOWARDS MADAGASCAR, STEERING THE TRACK MORE SOUTHWARD ON ITS WESTERN SIDE. WITH THE PERSISTENCE OF A RIDGE OVER SOUTHERN AFRICA, THE SYSTEM MAY EXPERIENCE CONTRADICTORY INFLUENCES IN TERMS OF STEERING FLOW, WHICH COULD RESULT IN A RATHER SLOW MOVEMENT. FROM FRIDAY, THE RIDGE ALONG THE INDIAN OCEAN AND MADAGASCAR COAST STRENGTHENS IN THE SOUTHEAST OF THE SYSTEM, WHICH COULD GIVE A SOUTHWEST COMPONENT TO THE TRAJECTORY. AROUND THIS MEDIAN SCENARIO, GUIDANCE REMAINS VERY SCATTERED. THE UNCERTAINTY ABOUT THIS FORECAST IS THUS QUITE IMPORTANT. IN PARTICULAR, A LANDFALL ON THE MOZAMBIKAN COAST CANNOT BE RULED OUT IN THE NEXT FEW DAYS.

THE SYSTEM IS IN A VERY HUMID ENVIRONMENT AND SUBJECTED TO LOW SHEAR UNDER THE UPPER TROPOSPHERIC RIDGE. LOW-LEVEL CONVERGENCE IS GOOD ON

ITS POLAR SIDE DUE TO THE SOUTHERLY WIND SURGE THIS TUESDAY, BUT IS STILL POOR ON THE NORTHEAST SIDE OF THE SYSTEM, IN THE MOZAMBIQUE CHANNEL, WHICH WILL KEEP THE CIRCULATION ELONGATED BETWEEN NOW AND WEDNESDAY. FROM THURSDAY ONWARDS, GUIDANCE SUGGEST A BETTER LOW LEVEL CONVERGENCE IN AN ENVIRONMENT THAT IS STILL FAVORABLE, WHICH SHOULD ALLOW THE ORGANIZATION OF A MORE COMPACT CORE. FROM THEN ON, STEADIER INTENSIFICATION BECOMES POSSIBLE.