

WTIO30 FMEE 171245

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 6/11/20202021

1.A MODERATE TROPICAL STORM 11 (GUAMBE)

2.A POSITION 2021/02/17 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 21.4 S / 37.5 E

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

MOVEMENT: SOUTH 2 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 1.0/12 H

4.A CENTRAL PRESSURE: 990 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

28 KT NE: 205 SE: 110 SW: 110 NW: 260

34 KT NE: 150 SE: 75 SW: 55 NW: 150

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/18 00 UTC: 22.0 S / 37.8 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 260 SE: 215 SW: 140 NW: 110

34 KT NE: 165 SE: 155 SW: 110 NW: 100

24H: 2021/02/18 12 UTC: 22.8 S / 37.7 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 250 SE: 185 SW: 100 NW: 155

34 KT NE: 165 SE: 140 SW: 85 NW: 140

48 KT NE: 110 SE: 45 SW: 75 NW: 35

36H: 2021/02/19 00 UTC: 23.6 S / 37.4 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 305 SE: 315 SW: 165 NW: 155

34 KT NE: 195 SE: 220 SW: 120 NW: 150

48 KT NE: 130 SE: 55 SW: 75 NW: 35

48H: 2021/02/19 12 UTC: 24.5 S / 37.0 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 345 SE: 295 SW: 250 NW: 140

34 KT NE: 215 SE: 215 SW: 165 NW: 130

48 KT NE: 85 SE: 55 SW: 95 NW: 65

64 KT NE: 30 SE: 30 SW: 20 NW: 45

60H: 2021/02/20 00 UTC: 25.2 S / 36.7 E, VENT MAX= 080 KT, TROPICAL CYCLONE  
28 KT NE: 325 SE: 325 SW: 215 NW: 140  
34 KT NE: 185 SE: 230 SW: 155 NW: 110  
48 KT NE: 100 SE: 65 SW: 85 NW: 85  
64 KT NE: 45 SE: 45 SW: 35 NW: 65

72H: 2021/02/20 12 UTC: 26.1 S / 36.6 E, VENT MAX= 085 KT, TROPICAL CYCLONE  
28 KT NE: 325 SE: 295 SW: 195 NW: 195  
34 KT NE: 185 SE: 220 SW: 155 NW: 150  
48 KT NE: 100 SE: 55 SW: 95 NW: 85  
64 KT NE: 35 SE: 35 SW: 30 NW: 65

#### 2.B LONGER-RANGE OUTLOOK:

96H: 2021/02/21 12 UTC: 29.5 S / 38.0 E, VENT MAX= 085 KT, TROPICAL CYCLONE  
28 KT NE: 370 SE: 260 SW: 295 NW: 295  
34 KT NE: 205 SE: 215 SW: 220 NW: 195  
48 KT NE: 100 SE: 110 SW: 120 NW: 100  
64 KT NE: 65 SE: 65 SW: 65 NW: 65

120H: 2021/02/22 12 UTC: 33.1 S / 45.9 E, VENT MAX= 065 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 425 SE: 360 SW: 650 NW: 400  
34 KT NE: 230 SE: 285 SW: 415 NW: 315  
48 KT NE: 120 SE: 130 SW: 180 NW: 130  
64 KT NE: 70 SE: 60 SW: 70 NW: 80

#### 2.C ADDITIONAL INFORMATION:

T=CI=3.0-

OVER THE LAST SIX HOURS, CONVECTION HAS BEEN ORGANISED IN A CURVED BAND, WITH PEAKS THAT HAVE UNDERGONE DIURNAL HEATING. THE LATEST SATELLITE IMAGES INDICATE THAT THE SURFACE CENTRE STILL APPEARS TO LIE BELOW THE SOUTHEASTERN EDGE OF THE DEEP CONVECTION. THE LATEST ASCAT-C DATA FROM 07H15UTC, INDICATE A STRENGTHENING OF THE WINDS IN THE EASTERN HALF OF THE CIRCULATION. THE SYSTEM HAS THEREFORE BEEN UPGRADED TO MODERATE STORM AND BAPTISED.

THE SYSTEM HAS MOVED LITTLE UNDER THE INFLUENCE OF OPOSITE STEERING FLOWS : ON THE NORTHEASTERN EDGE OF THE SUBTROPICAL GEOPOTENTIAL HIGH, THE SYSTEM IS EXPOSED TO A SOUTHEASTERLY FLOW, WHILE TO THE NORTHEAST, A NEAR EQUATORIAL RIDGE BLOWS A NORTHWESTERLY FLOW. THIS SITUATION MAKES THE SHORT-RANGE FORECAST PARTICULARLY UNCERTAIN. FROM TOMORROW THURSDAY, A SUBTROPICAL RIDGE IS REBUILDING OVER MADAGASCAR, BENDING THE TRACK SOUTHWARD ON ITS WESTERN EDGE. WITH THE PERSISTENCE OF A RIDGE OVER SOUTHERN AFRICA, THIS MOVEMENT IS EXPECTED TO REMAIN FAIRLY SLOW. BY THE END OF THE WEEK, THE PRESENCE OF A DEEP MID-LATITUDE TROUGH SOUTH OF THE CHANNEL SHOULD FAVOR AN ACCELERATION SOUTHEASTWARD. THIS TRACK IS IN AGRREMENT WITH THE MAIN AMERICAN AND FRENCH GUIDANCE AND ALSO SOME MEMBER OF THE EUROPEAN EPS.

THE SYSTEM IS SUBJECT TO LOW VERTICAL SHEAR BELOW THE UPPER RIDGE, IN A HUMID ENVIRONMENT AT ALL LEVELS. THE LOW LEVEL CONVERGENCE, EXCELLENT ON THE POLAR SIDE THANKS TO THE SOUTHERLY BURST YESTERDAY, IS NOT OPTIMAL ON THE NORTHEAST SIDE OF THE SYSTEM, THE FASTEST MONSOON FLOW LIES QUITE FAR AWAY FROM THE CENTER. THIS CONFIGURATION FAVOURS AN ELONGATED CIRCULATION WHICH COULD LIMIT THE DEEPENING RATE AT SHORT RANGE. FROM THURSDAY ONWARDS, A FASTER INTENSIFICATION IS LIKELY, UNDER THE INFLUENCE OF A INCREASING UPPER DIVERGENCE. THESE FAVOURABLE CONDITIONS, COMBINED WITH WARM WATERS, SHOULD ALLOW SYSTEM 11 TO REACH TROPICAL CYCLONE OR EVEN INTENSE TROPICAL CYCLONE STAGE. HOWEVER, AT LONGER RANGE, CLOSE TO THE MID-LATITUDE TROUGH, THE NORTHWESTERLY SHEAR COULD GRADUALLY STRENGTHEN AND ADVECT DRY AIR INTO THE INNER CORE OF THE SYSTEM, LEADING TO ITS WEAKENING, HOWEVER, THIS IS ATTENUATED BY THE HIGH SPEED OF MOVEMENT OF THE SYSTEM IN THE SHEAR DIRECTION.

THE CURRENT FORECAST LEAVE THE MOZAMBICAN COASTS ON EDGE OF SYSTEM 11 PATH. A LANDFALL IS NOT THE MOST LIKELY SCENARIO BUT IT CAN'T BE EXCLUDED FOR NOW. HEAVY RAINS ARE STILL POSSIBLE OVER THE SOUTHERN PARTS OF MOZAMBIQUE IN RELATION WITH THIS LOW.