

WTIO30 FMEE 210029

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 20/11/20202021

1.A SEVERE TROPICAL STORM 11 (GUAMBE)

2.A POSITION 2021/02/21 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 28.0 S / 36.9 E

(TWENTY EIGHT DECIMAL ZERO DEGREES SOUTH AND  
THIRTY SIX DECIMAL NINE DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 7 KT

3.A DVORAK ANALYSIS: 3.5/3.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 985 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW): 46 KM

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

28 KT NE: 280 SE: 335 SW: 205 NW: 185

34 KT NE: 185 SE: 220 SW: 110 NW: 150

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1003 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/21 12 UTC: 30.0 S / 38.6 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 315 SE: 315 SW: 260 NW: 280

34 KT NE: 220 SE: 240 SW: 205 NW: 195

48 KT NE: 110 SE: 110 SW: 110 NW: 100

24H: 2021/02/22 00 UTC: 32.5 S / 42.6 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 425 SE: 325 SW: 380 NW: 370

34 KT NE: 240 SE: 260 SW: 270 NW: 270

48 KT NE: 120 SE: 130 SW: 140 NW: 110

64 KT NE: 65 SE: 65 SW: 75 NW: 75

36H: 2021/02/22 12 UTC: 35.8 S / 49.9 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 435 SE: 305 SW: 720 NW: 370

34 KT NE: 240 SE: 260 SW: 445 NW: 280

48 KT NE: 140 SE: 140 SW: 155 NW: 120

64 KT NE: 75 SE: 75 SW: 65 NW: 85

48H: 2021/02/23 00 UTC: 37.8 S / 58.0 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 425 SE: 345 SW: 740 NW: 285

34 KT NE: 240 SE: 285 SW: 435 NW: 195  
48 KT NE: 140 SE: 95 SW: 140 NW: 120

60H: 2021/02/23 12 UTC: 39.2 S / 65.1 E, VENT MAX= 035 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 370 SE: 155 SW: 230 NW: 195  
34 KT NE: 195 SE: 150 SW: 175 NW: 165

72H: 2021/02/24 00 UTC: 40.7 S / 70.3 E, VENT MAX= 030 KT, EXTRATROPICAL  
DEPRESSION

28 KT NE: 260 SE: 110 SW: 120 NW: 95

2.B LONGER-RANGE OUTLOOK:  
NIL

2.C ADDITIONAL INFORMATION:  
T=3.5- CI=3.5

THE ABSENCE OF MICROWAVE DATA IS REALLY DETRIMENTAL TO THE LOCATION OF THE CENTER. THE LAST SCATSAT SWATH OF 1730UTC ALLOWS TO NOTE WINDS OF 50KT VERY LOCALLY IN THE EAST SECTOR OF GUAMBE. DURING THE LAST 6 HOURS, THE CURVED BAND CONFIGURATION IS MAINTAINED BY PRESENTING ON THE LAST MOMENTS THE EXPECTED INTENSIFICATION, WITH A CONVECTION NEAR THE CENTER WHICH COOLS DOWN MORE CLEARLY. VALIDATED BY THE ADT, AN ANALYSIS IN T OF 3.5- AND CI OF 3.5 THUS LEAVES FOR THE MOMENT AN ESTIMATE OF THE WINDS AT 50KT, STILL AT THE STAGE OF STRONG TROPICAL STORM.

NO CHANGE IN TERMS OF TRACK : GUAMBE KEEPS A GENERAL SOUTH-SOUTH-EAST MOTION UNDER THE INFLUENCE OF THE SUBTROPICAL RIDGE TO THE EAST OF THE SYSTEM. WITH THE APPROACH OF A MID-LATITUDE TROUGH FROM THE SOUTH, GUAMBE IS PLACED ON A SOUTH-EAST TRACK WHICH SHOULD NOT CHANGE AND WILL SHOW A WELL MARKED ACCELERATION DURING THE DAY ON SUNDAY. THIS WILL SIGNAL ITS EVACUATION TOWARDS THE MIDDLE LATITUDES, TAKEN IN THE WAKE OF THE TROUGH THAT RUNS FURTHER SOUTH. THE AVAILABLE MODELS REMAIN RELATIVELY LITTLE DISPERSED AROUND THIS SCENARIO IN TERMS OF DIRECTION BUT STILL PRESENT IMPORTANT DIFFERENCES IN TERMS OF EVACUATION SPEED.

THE GUAMBE INTENSIFICATION SEEMS TO START AGAIN IN AN ENVIRONMENT THAT REMAINS FAVORABLE WITH A STRONG DIVERGENCE OF ALTITUDE, ESPECIALLY ON THE SOUTH SIDE, AND A SHEAR REMAINING IN REASONABLE PROPORTIONS. THANKS TO A RESUMPTION OF ITS DISPLACEMENT, GUAMBE FINDS ITSELF AGAIN WITH A SUFFICIENT OCEANIC POTENTIAL AND THIS UNTIL ABOUT 30S. FROM TONIGHT, THE NORTHWESTERN SHEAR SHOULD GRADUALLY STRENGTHEN IN FRONT OF THE MID-LATITUDE TROUGH AND LEAD TO THE WEAKENING OF THE SYSTEM FROM TOMORROW. THE ACCELERATION OF GUAMBE IN THE DIRECTION OF THE SHEAR SHOULD HOWEVER MAKE IT RESIST AND IT WILL THEN START TO LOSE ITS PURELY TROPICAL CHARACTERISTICS AT QUITE SOUTHERN LATITUDES, STARTING ON TUESDAY.