

WTIO30 FMEE 211220

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 22/11/20202021

1.A SEVERE TROPICAL STORM 11 (GUAMBE)

2.A POSITION 2021/02/21 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 30.7 S / 39.0 E  
(THIRTY DECIMAL SEVEN DEGREES SOUTH AND  
THIRTY NINE DECIMAL ZERO DEGREES EAST)  
MOVEMENT: SOUTH-EAST 13 KT

3.A DVORAK ANALYSIS: 2.5/3.5/W 1.0/12 H

4.A CENTRAL PRESSURE: 981 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT  
RADIUS OF MAXIMUM WINDS (RMW): 93 KM

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

28 KT NE: 280 SE: 280 SW: 260 NW: 370  
34 KT NE: 220 SE: 220 SW: 240 NW: 185  
48 KT NE: 110 SE: 110 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/22 00 UTC: 33.1 S / 43.4 E, VENT MAX= 065 KT, TROPICAL CYCLONE  
28 KT NE: 405 SE: 360 SW: 335 NW: 415  
34 KT NE: 260 SE: 295 SW: 270 NW: 260  
48 KT NE: 120 SE: 100 SW: 150 NW: 110  
64 KT NE: 55 SE: 65 SW: 65 NW: 75

24H: 2021/02/22 12 UTC: 36.6 S / 51.4 E, VENT MAX= 050 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 400 SE: 675 SW: 970 NW: 470  
34 KT NE: 250 SE: 360 SW: 650 NW: 220  
48 KT NE: 140 SE: 110 SW: 110 NW: 120

36H: 2021/02/23 00 UTC: 38.6 S / 60.7 E, VENT MAX= 040 KT, EXTRATROPICAL  
DEPRESSION

28 KT NE: 270 SE: 445 SW: 980 NW: 425  
34 KT NE: 220 SE: 175 SW: 630 NW: 185

48H: 2021/02/23 12 UTC: 39.9 S / 68.5 E, VENT MAX= 035 KT, EXTRATROPICAL  
DEPRESSION

28 KT NE: 370 SE: 150 SW: 130 NW: 240  
34 KT NE: 195 SE: 120 SW: 110 NW: 150

60H: 2021/02/24 00 UTC: 41.5 S / 74.3 E, VENT MAX= 030 KT, EXTRATROPICAL  
DEPRESSION  
28 KT NE: 415 SE: 110 SW: 120 NW: 120

72H: 2021/02/24 12 UTC: 43.6 S / 79.3 E, VENT MAX= 030 KT, EXTRATROPICAL  
DEPRESSION  
28 KT NE: 435 SE: 110 SW: 120 NW: 120

2.B LONGER-RANGE OUTLOOK:  
NIL

2.C ADDITIONAL INFORMATION:  
T=2.5 CI=3.5

DURING THE LAST SIX HOURS, THE STRUCTURE OF THE SYSTEM AFTER SHOWING SIGNS OF WEAKNESS NOW SEEMS TO BE ORGANIZING ITSELF INTO A CURVED BAND, WITH A LOW LAYER CENTER LOCATED SOUTHEAST OF THE MOST INTENSE CONVECTIVE ACTIVITY. THE 0730Z ASCAT-C SHOWS THE EXISTENCE OF AVERAGE WINDS OF AT LEAST 40KT IN THE WESTERN SEMI-CIRCLE, BUT THE STRONGEST WINDS ARE LOCATED IN THE EASTERN SEMI-CIRCLE ACCORDING TO NOAA'S SAROPS DATA OF 0254Z. AVERAGE WINDS ESTIMATES REMAINS AT 50KT.

NO CHANGE IN TERMS OF TRACK: GUAMBE MAINTAINS A GENERAL SOUTHEASTWARD MOVEMENT 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 WILL BE GUIDED MORE FRANKLY ON A SOUTH-EASTERN TRAJECTORY THAT SHOULD NOT CHANGE AND WILL PRESENT A NOTICED ACCELERATION TODAY AND TOMORROW. THIS CONFIGURATION WILL LEAD TO ITS RAPID EVACUATION TOWARDS THE MIDDLE LATITUDES, CAUGHT IN THE WAKE OF THE TROUGH THAT RUNS FURTHER SOUTH. THE AVAILABLE NUMERICAL MODELS ARE NOT VERY SCATTERED AROUND THIS SCENARIO AS FAR AS DIRECTION IS CONCERNED, BUT STILL PRESENT SOME DIFFERENCES IN TERMS OF EVACUATION SPEED.

THE INTENSIFICATION OF GUAMBE SEEMS POSSIBLE IN THE SHORT TERMS IN AN ENVIRONMENT THAT REMAINS FAVORABLE WITH A STRONG UPPER DIVERGENCE ON THE POLAR SIDE, A WEAK WIND SHEAR, AND STILL SOME OCEANIC POTENTIAL ABOVE 32°S. FROM TONIGHT, THE NORTH-WESTERLY SHEAR SHOULD PROGRESSIVELY STRENGTHEN IN FRONT OF THE MID-LATITUDE TROUGH AND LEAD TO THE WEAKENING OF THE SYSTEM FROM TOMORROW EVENING. THE OCEANIC POTENTIAL WILL ALSO TEND TO DISSIPATE STRONGLY. GUAMBE SHOULD RESIST TO THE WIND SHEAR ALOFT, DUE TO ITS RAPID MOVEMENT IN THE DIRECTION OF THE UPPER WIND SHEAR. IT WILL THEN START TO LOSE ITS TROPICAL CHARACTERISTICS FROM TUESDAY ONWARDS.