

WTIO30 FMEE 190027

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 12/11/20202021

1.A SEVERE TROPICAL STORM 11 (GUAMBE)

2.A POSITION 2021/02/19 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 24.0 S / 37.2 E

(TWENTY FOUR DECIMAL ZERO DEGREES SOUTH AND
THIRTY SEVEN DECIMAL TWO DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-WEST 4 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/18 H

4.A CENTRAL PRESSURE: 982 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

28 KT NE: 280 SE: 280 SW: 185 NW: 315

34 KT NE: 295 SE: 185 SW: 55 NW: 55

48 KT NE: 55 SE: 55 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/19 12 UTC: 24.5 S / 36.3 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 305 SE: 325 SW: 325 NW: 140

34 KT NE: 240 SE: 230 SW: 175 NW: 130

48 KT NE: 120 SE: 110 SW: 85 NW: 85

24H: 2021/02/20 00 UTC: 25.0 S / 35.9 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 325 SE: 370 SW: 260 NW: 140

34 KT NE: 240 SE: 260 SW: 185 NW: 130

48 KT NE: 120 SE: 120 SW: 95 NW: 85

36H: 2021/02/20 12 UTC: 26.1 S / 35.8 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 335 SE: 350 SW: 220 NW: 185

34 KT NE: 240 SE: 250 SW: 155 NW: 175

48 KT NE: 130 SE: 130 SW: 95 NW: 95

64 KT NE: 75 SE: 55 SW: 45 NW: 75

48H: 2021/02/21 00 UTC: 27.8 S / 36.2 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 345 SE: 345 SW: 240 NW: 220

34 KT NE: 240 SE: 250 SW: 185 NW: 165

48 KT NE: 140 SE: 140 SW: 110 NW: 100
64 KT NE: 85 SE: 65 SW: 45 NW: 75

60H: 2021/02/21 12 UTC: 29.7 S / 38.1 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 370 SE: 305 SW: 325 NW: 335
34 KT NE: 260 SE: 240 SW: 220 NW: 240
48 KT NE: 150 SE: 155 SW: 120 NW: 110
64 KT NE: 95 SE: 75 SW: 75 NW: 85

72H: 2021/02/22 00 UTC: 31.8 S / 42.2 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 415 SE: 380 SW: 500 NW: 405
34 KT NE: 280 SE: 285 SW: 325 NW: 305
48 KT NE: 150 SE: 175 SW: 155 NW: 120
64 KT NE: 95 SE: 75 SW: 75 NW: 85

2.B LONGER-RANGE OUTLOOK:

96H: 2021/02/23 00 UTC: 35.6 S / 54.3 E, VENT MAX= 070 KT, POST-TROPICAL DEPRESSION

28 KT NE: 405 SE: 390 SW: 325 NW: 270
34 KT NE: 270 SE: 305 SW: 250 NW: 205
48 KT NE: 140 SE: 120 SW: 150 NW: 110
64 KT NE: 55 SE: 30 SW: 30 NW: 85

120H: 2021/02/24 00 UTC: 38.7 S / 63.8 E, VENT MAX= 035 KT, POST-TROPICAL DEPRESSION

28 KT NE: 370 SE: 150 SW: 165 NW: 230
34 KT NE: 250 SE: 140 SW: 130 NW: 150

2.C ADDITIONAL INFORMATION:

T=CI=3.5+.

THE CLOUDY CONFIGURATION OF GUAMBE IN CDO HAS CONSOLIDATED COMPARED TO THE PREVIOUS 6 HOURS, WITH THE APPEARANCE OF A HOT SPOT IN IR ON THE VERY LAST SATELLITE IMAGES.

THE MAXIMUM WINDS BEING RATHER LOCALIZED IN THE EASTERN SECTOR ACCORDING TO THE SCATSAT PASS OF 17H30.

THE SYSTEM MOVES SLOWLY, UNDER THE INFLUENCE OF OPPOSITE DIRECTIONAL FLOWS: A SOUTHEASTERLY FLOW GENERATED BY SUBTROPICAL GEOPOTENTIAL HIGHS AND A NORTHWESTERLY FLOW BY A NEAR EQUATORIAL RIDGE. THE TRAJECTORY OF GUAMBE HAS TAKEN A MORE SOUTH-WESTERLY ORIENTATION ON THE WESTERN FACE OF THIS RIDGE. THE DIFFERENT GUIDANCES ARE MORE AND MORE IN AGREEMENT ON THE GENERAL ORIENTATION OF THE TRAJECTORY, THE OPTICS OF A RAPPROCHEMENT OF THE MOZAMBIKAN COASTS BEING GLOBALLY LESS PRESENT. THE PRESENT FORECAST OF THE CMRS FOLLOWS THIS PHILOSOPHY. AT THE END OF THE WEEK, THE PRESENCE OF A DEEP MID-LATITUDE TROUGH SOUTH OF THE CANAL SHOULD FAVOR A SOUTH-EASTWARD EVACUATION OF GUAMBE BUT THE CHRONOLOGY ON THIS ACCELERATION REMAINS UNCERTAIN BETWEEN THE MODELS FROM SUNDAY ON.

THE ENVIRONMENT OF GUAMBE IS RATHER FAVORABLE TO A REGULAR

INTENSIFICATION, ONLY THE CONVERGENCE OF LOW LEVELS IS STILL LIMITING. NO CHANGE IN TERMS OF INTENSITY FORECAST: A SLOWER AND THEN MORE INTENSE INTENSIFICATION OF THE SYSTEM IS EXPECTED. THESE FAVORABLE CONDITIONS ASSOCIATED WITH A SUFFICIENT OCEANIC POTENTIAL EVEN AT THESE LATITUDES, SHOULD ALLOW GUAMBE TO REACH THE STAGE OF A TROPICAL CYCLONE OR EVEN AN INTENSE TROPICAL CYCLONE. AT THE END OF THE FORECAST PERIOD, ON THE EDGE OF THE MID-LATITUDE TROUGH, THE NORTHWESTERN SECTOR SHEAR COULD GRADUALLY STRENGTHEN LEADING TO THE WEAKENING OF THE SYSTEM. AS FOR THE TRACK, THE SPEED OF MOVEMENT OF THE SYSTEM, WHICH IS INCREASINGLY RAPID IN THE DIRECTION OF THE SHEAR, MAINTAINS AN UNCERTAINTY ON THE TIMING OF THE WEAKENING. AT THE END OF THE PERIOD A POST-TROPICAL EVOLUTION IS POSSIBLE DEPENDING ON THE DEGREE OF INTERACTION WITH THE SUBTROPICAL JET.

EVEN IF THIS PREDICTION MAKES GUAMBE PASS OFF THE MOZAMBICAN COAST, GUAMBE MAY SIGNIFICANTLY AFFECT THE WEATHER CONDITIONS IN SOUTHERN MOZAMBIQUE, ESPECIALLY ON FRIDAY AND SATURDAY BETWEEN VILANKULO IN THE NORTH AND XAI-XAI IN THE SOUTH. HEAVY RAINS THAT CAN REACH AND LOCALLY EXCEED 150 MM IN 24 HOURS ARE POSSIBLE ON THESE SECTORS. STRONG WINDS THAT CAN REACH 100 KM/H IN GUSTS ON THE COAST ARE POSSIBLE FROM FRIDAY. THE RISK OF STORM SURGE IS GLOBALLY LOW IN THE SECTOR SINCE IN THE WORST CASE SCENARIO, IT IS ESTIMATED AT 1M (INFERIOR TO 50 CM IN THE MOST PROBABLE SCENARIO).