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

0.A WARNING NUMBER: 9/6/20232024
1.A SEVERE TROPICAL STORM 6 (DJOUNGOU)

2.A POSITION 2024/02/17 AT 0000 UTC:
WITHIN 20 NM RADIUS OF POINT 16.0 S / 67.5 E
(SIXTEEN DECIMAL ZERO DEGREES SOUTH AND
SIXTY SEVEN DECIMAL FIVE DEGREES EAST)
MOVEMENT: EAST 7 KT

3.A DVORAK ANALYSIS: 4.0/4.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 983 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT
RADIUS OF MAXIMUM WINDS (RMW): 19 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 405 SE: 315 SW: 155 NW: 335
34 KT NE: 100 SE: 100 SW: 75 NW: 75
48 KT NE: 30 SE: 30 SW: 30 NW: 30
64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 1300 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2024/02/17 12 UTC: 16.4 S / 69.6 E, VENT MAX= 075 KT, TROPICAL CYCLONE
28 KT NE: 415 SE: 390 SW: 380 NW: 305
34 KT NE: 230 SE: 215 SW: 195 NW: 185
48 KT NE: 85 SE: 55 SW: 65 NW: 65
64 KT NE: 45 SE: 35 SW: 45 NW: 55

24H: 2024/02/18 00 UTC: 17.5 S / 72.5 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE
28 KT NE: 455 SE: 305 SW: 315 NW: 325
34 KT NE: 250 SE: 165 SW: 165 NW: 195
48 KT NE: 100 SE: 55 SW: 65 NW: 85
64 KT NE: 55 SE: 45 SW: 55 NW: 55

36H: 2024/02/18 12 UTC: 19.7 S / 76.8 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE
28 KT NE: 465 SE: 325 SW: 360 NW: 240
34 KT NE: 240 SE: 175 SW: 175 NW: 140
48 KT NE: 95 SE: 55 SW: 65 NW: 75

64 KT NE: 65 SE: 45 SW: 45 NW: 55

48H: 2024/02/19 00 UTC: 22.5 S / 81.6 E, VENT MAX= 075 KT, TROPICAL CYCLONE
28 KT NE: 470 SE: 305 SW: 285 NW: 305
34 KT NE: 250 SE: 165 SW: 175 NW: 175
48 KT NE: 100 SE: 65 SW: 65 NW: 65
64 KT NE: 65 SE: 45 SW: 45 NW: 55

60H: 2024/02/19 12 UTC: 25.0 S / 85.5 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM
28 KT NE: 455 SE: 270 SW: 345 NW: 250
34 KT NE: 230 SE: 140 SW: 165 NW: 130
48 KT NE: 75 SE: 35 SW: 55 NW: 45

72H: 2024/02/20 00 UTC: 26.4 S / 89.2 E, VENT MAX= 050 KT, POST-TROPICAL DEPRESSION
28 KT NE: 360 SE: 240 SW: 240 NW: 260
34 KT NE: 165 SE: 100 SW: 140 NW: 140
48 KT NE: 65 SE: 35 SW: 0 NW: 45

2.B LONGER-RANGE OUTLOOK:
96H: 2024/02/21 00 UTC: 27.4 S / 96.1 E, VENT MAX= 035 KT, FILLING UP
28 KT NE: 175 SE: 205 SW: 195 NW: 120
34 KT NE: 0 SE: 100 SW: 0 NW: 0

2.C ADDITIONAL INFORMATION:
T=CI=4.0

OVER THE LAST 6 HOURS, THE EMBEDDED CENTER CONFIGURATION HAS DEVELOPED.AN EYE IS PERCEPTIBLE ON THE 37 GHZ DMSP-F18 MICROWAVE IMAGE OF 2310Z, BUT IT IS LESS SHARP THAN ON PREVIOUS MICROWAVE IMAGES AVAILABLE. GIVEN THE RECENT EVOLUTION OF THE CONFIGURATION, A DVORAK ANALYSIS CONFIRMED BY ADT ESTIMATES THE INTENSITY OF THE SYSTEM AT 55KT AT 00Z. DJOUNGOU IS STILL A SEVERE TROPICAL STORM. THE SYSTEM INTENSIFICATION HAS BEGUN.

DJOUNGOU IS HEADING EAST-SOUTHEAST AND WILL ACCELERATE OVER THE NEXT FEW HOURS, DRIVEN BY A WESTERLY FLOW ALONG THE SOUTHERN EDGE OF THE NEAR-EQUATORIAL RIDGE. ON SUNDAY, THE SYSTEM WILL MOVE SOUTH-EASTWARDS, BETWEEN A RIDGE TO THE EAST AND A TROUGH TO THE SOUTH. ACCORDING TO THE CURRENT FORECAST, THIS CONFIGURATION COULD TAKE THE SYSTEM OUT OF THE SOUTHWESTERN INDIAN OCEAN BASIN AND INTO THE AUSTRALIAN ZONE OF RESPONSIBILITY BY TUESDAY. UNCERTAINTY REMAINS OVER THE SPEED AT WHICH THE SYSTEM WILL MOVE. THE PRESENT FORECAST IS STILL A COMPROMISE BETWEEN IFS AND GFS, WHICH NEVERTHELESS PROPOSE RELATIVELY CLOSE TRACKS.

IN TERMS OF INTENSITY, ENVIRONMENTAL CONDITIONS ARE STILL FAVORABLE FOR ITS DEVELOPMENT, WITH STRONG OCEANIC POTENTIAL, LITTLE VERTICAL WIND SHEAR, AND EXCELLENT ALTITUDE DIVERGENCE IN ALL QUADRANTS, MARKED IN PARTICULAR BY THE PRESENCE OF AN OUTFLOW CHANNEL ON THE SOUTHEAST SIDE. A RAPID INTENSIFICATION IS EXPECTED OVER THE NEXT FEW

HOURS. DJOUNGOU COULD THEREFORE BECOME INTENSE TROPICAL CYCLONE TOMORROW, SATURDAY. ON SUNDAY, CONDITIONS SHOULD BEGIN TO DETERIORATE, WITH A RAPID STRENGTHENING OF THE WESTERLY SHEAR ALOFT AND THE ARRIVAL OF DRY AIR INTRUSIONS. FROM SUNDAY EVENING, THIS SHOULD BE ACCOMPANIED BY A GRADUAL DECREASE IN OCEANIC POTENTIAL AS THE SYSTEM MOVES INTO COOLER WATERS. AT THE BEGINNING OF THE WEEK, THE SYSTEM SHOULD GRADUALLY LOSE ITS TROPICAL CHARACTERISTICS BEFORE EVOLVING INTO A RESIDUAL SYSTEM BY MID-WEEK.

IMPACTS ON INHABITED LAND OVER THE NEXT 48 HOURS:
RODRIGUES ISLAND:
- SEA STATE CLEARLY DETERIORATING FROM TONIGHT, WITH AVERAGE WAVES BETWEEN 4 AND 5 METRES. NOTICEABLE IMPROVEMENT ON SUNDAY, AS THE SYSTEM MOVES AWAY.