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

0.A WARNING NUMBER: 5/8/20222023
1.A MODERATE TROPICAL STORM 8 (ENALA)

2.A POSITION 2023/02/22 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 14.6 S / 74.3 E
(FOURTEEN DECIMAL SIX DEGREES SOUTH AND
SEVENTY FOUR DECIMAL THREE DEGREES EAST)
MOVEMENT: SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 998 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 75 SE: 150 SW: 130 NW: 0
34 KT NE: 0 SE: 65 SW: 65 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1011 HPA / 600 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/02/23 00 UTC: 16.7 S / 72.6 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 110 SE: 175 SW: 175 NW: 0
34 KT NE: 0 SE: 85 SW: 100 NW: 0

24H: 2023/02/23 12 UTC: 18.7 S / 71.7 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 120 SE: 195 SW: 185 NW: 95
34 KT NE: 65 SE: 100 SW: 100 NW: 65
48 KT NE: 45 SE: 45 SW: 55 NW: 45

36H: 2023/02/24 00 UTC: 20.4 S / 70.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 140 SE: 215 SW: 185 NW: 95
34 KT NE: 75 SE: 110 SW: 110 NW: 65
48 KT NE: 45 SE: 55 SW: 55 NW: 45

48H: 2023/02/24 12 UTC: 22.2 S / 69.7 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 150 SE: 220 SW: 195 NW: 95
34 KT NE: 85 SE: 120 SW: 110 NW: 65

60H: 2023/02/25 00 UTC: 23.5 S / 68.6 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 155 SE: 240 SW: 195 NW: 100
34 KT NE: 95 SE: 130 SW: 110 NW: 75

72H: 2023/02/25 12 UTC: 24.7 S / 67.4 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 175 SE: 250 SW: 205 NW: 100
34 KT NE: 100 SE: 150 SW: 110 NW: 75

2.B LONGER-RANGE OUTLOOK:
96H: 2023/02/26 12 UTC: 26.1 S / 64.4 E, VENT MAX= 030 KT, REMNANT LOW
28 KT NE: 205 SE: 280 SW: 205 NW: 130

120H: 2023/02/27 12 UTC: 26.9 S / 61.9 E, VENT MAX= 025 KT, REMNANT LOW

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

DURING THE AFTERNOON HOURS, CONVECTION HAS INTENSIFIED IN THE IMMEDIATE VICINITY OF THE CENTER AND RECENT MICROWAVE IMAGES (AMSR2 0855Z, SSMIS-F18 1119Z) SHOW A BETTER-CONSOLIDATED CENTRAL CORE WHICH HAS MOVED CLOSER TO THE HEAD OF THE CURVED BAND. THE 1225Z GMI IMAGE EVEN SUGGESTS THE BEGINNING OF A CENTRAL CONVECTIVE RING WITH A QUITE COMPACT STRUCTURE. THESE INDICATIONS CLEARLY CONFIRM THAT INTENSIFICATION IS UNDERWAY. MAURITIUS METEOROLOGICAL SERVICE HAS THUS OFFICIALLY NAMED MODERATE TROPICAL STORM ENALA THIS 22 FEBRUARY AT 11H30 UTC, THE SEVENTH NAMED STORM OF THE SEASON OVER THE SOUTH-WEST INDIAN OCEAN. THE ESTIMATED INTENSITY OF 35KT MAY BE A BIT CONSERVATIVE CONSIDERING THE LATEST MICROWAVE IMAGES.

THE SYSTEM IS HEADING SOUTH-SOUTHWESTWARDS BETWEEN THE SUBTROPICAL HIGH GEOPOTENTIALS SHIFTING TO THE SOUTHEAST, PROLONGED BY A SECONDARY RIDGE ALONG THE EASTERN SIDE OF THE SYSTEM, AND A WEAK TROUGH TO THE SOUTH-WEST OF THE SYSTEM. THIS WEEKEND, WHILE THE SYSTEM SHOULD WEAKEN AND STEERING FLOW SHOULD RETURN TO LOWER LEVELS, THE TRACK SHOULD SHIFT WEST-SOUTHWESTWARDS. ALTHOUGH THERE IS SOME UNCERTAINTY ABOUT THE EXACT TRACK AT THE END OF THE FORECAST PERIOD, VARIOUS ENSEMBLE FORECAST PLUMES CONFIRM THAT THIS SYSTEM DOES NOT POSE ANY THREAT TO INHABITED LANDS.

ENVIRONMENTAL CONDITIONS ARE CONDUCIVE FOR SHORT TERM INTENSIFICATION, UNDER WEAK TO MODERATE SHEAR, GOOD UPPER DIVERGENCE (INCREASING POLEWARD OUTFLOW CHANNEL) AND FAVORABLE OCEANIC POTENTIAL. THESE GOOD CONDITIONS SHOULD ALLOW STRENGTHENING AT LEAST TO SEVERE TROPICAL STORM STAGE BY THURSDAY. NEVERTHELESS, AN EVEN STRONGER AND MORE RAPID INTENSIFICATION, UP TO TROPICAL CYCLONE STAGE, CAN'T RULED OUT GIVEN THE SYSTEM'S COMPACT CORE. FROM FRIDAY AND ESPECIALLY SATURDAY ONWARDS, INCREASING NORTHWESTERLY WIND SHEAR AHEAD OF ON APPROACHING UPPER TROUGH FROM THE SOUTH-WEST SHOULD TRIGGER DRY AIR INTRUSIONS FROM THE NORTH-WEST, HENCE A MORE OR LESS RAPID WEAKENING EXPECTED OVER THE WEEKEND. MODELS DISPERSION IS QUITE

STRONG ABOUT THIS WEAKENING TREND. THE RSMC FORECAST FOLLOWS A MEDIAN SCENARIO, BUT THE INTENSITY FORECAST UNCERTAINTY IS HIGHER THAN AVERAGE.