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

0.A WARNING NUMBER: 12/8/20222023
1.A SEVERE TROPICAL STORM 8 (ENALA)

2.A POSITION 2023/02/24 AT 0600 UTC:
WITHIN 20 NM RADIUS OF POINT 22.0 S / 70.4 E
(TWENTY TWO DECIMAL ZERO DEGREES SOUTH AND
SEVENTY DECIMAL FOUR DEGREES EAST)
MOVEMENT: SOUTH 11 KT

3.A DVORAK ANALYSIS: 3.0/4.0/W 1.0/6 H

4.A CENTRAL PRESSURE: 984 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 60 KT
RADIUS OF MAXIMUM WINDS (RMW): 37 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 150 SE: 220 SW: 220 NW: 110
34 KT NE: 100 SE: 140 SW: 140 NW: 95
48 KT NE: 65 SE: 75 SW: 70 NW: 55
64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 400 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/02/24 18 UTC: 23.6 S / 68.6 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 150 SE: 250 SW: 215 NW: 100
34 KT NE: 100 SE: 130 SW: 140 NW: 75
48 KT NE: 55 SE: 65 SW: 75 NW: 55

24H: 2023/02/25 06 UTC: 25.2 S / 67.7 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 155 SE: 240 SW: 220 NW: 110
34 KT NE: 100 SE: 130 SW: 140 NW: 85
48 KT NE: 65 SE: 65 SW: 75 NW: 55

36H: 2023/02/25 18 UTC: 26.6 S / 66.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 155 SE: 250 SW: 220 NW: 120
34 KT NE: 100 SE: 140 SW: 140 NW: 85
48 KT NE: 55 SE: 65 SW: 75 NW: 55

48H: 2023/02/26 06 UTC: 27.7 S / 65.5 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 165 SE: 250 SW: 215 NW: 130
34 KT NE: 100 SE: 140 SW: 140 NW: 95

48 KT NE: 65 SE: 65 SW: 75 NW: 55

60H: 2023/02/26 18 UTC: 28.6 S / 64.5 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 165 SE: 250 SW: 195 NW: 120
34 KT NE: 100 SE: 140 SW: 140 NW: 95
48 KT NE: 65 SE: 65 SW: 75 NW: 55

72H: 2023/02/27 06 UTC: 28.8 S / 64.1 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 165 SE: 195 SW: 195 NW: 150
34 KT NE: 100 SE: 120 SW: 120 NW: 95

2.B LONGER-RANGE OUTLOOK:
96H: 2023/02/28 06 UTC: 28.1 S / 63.6 E, VENT MAX= 045 KT, POST-TROPICAL DEPRESSION
28 KT NE: 165 SE: 195 SW: 215 NW: 130
34 KT NE: 100 SE: 130 SW: 120 NW: 95

120H: 2023/03/01 06 UTC: 28.8 S / 63.7 E, VENT MAX= 040 KT, POST-TROPICAL DEPRESSION
28 KT NE: 205 SE: 280 SW: 205 NW: 150
34 KT NE: 120 SE: 175 SW: 130 NW: 85

2.C ADDITIONAL INFORMATION:
T=3.0 CI=4.0+

OVER THE LAST SIX HOURS, THE ENALA LLC HAS APPEARED ON THE SATELLITE IMAGES, DUE TO A STRONG NORTHWESTERLY VERTICAL WSH PRESENT IN MID-LEVEL TROPOSPHERE, ESTIMATED AT 25/30KT. THE LAST MICROWAVE IMAGES APPEARED SHORTLY AFTER 00Z, SHOW AN ERODED INTERNAL STRUCTURE IN THE NORTHERN SEMICIRCLE, CONFIRMING THE WEAKENING OBSERVED DURING THE LAST HOURS. GIVEN THESE RECENT ELEMENTS AND BY INERTIA, THE INTENSITY OF THE SYSTEM HAS BEEN DOWNGRADED TO A SEVERE TROPICAL STORM FOR 60KT.

THE SOUTH-SOUTHWESTWARD TRACK SHOULD CONTINUE UNTIL SATURDAY, GUIDED BETWEEN THE HIGH SUBTROPICAL GEOPOTENTIALS LOCATED EAST OF THE SYSTEM ON THE ONE HAND, AND A WEAK MID-TROPOSPHERE TROUGH THAT FAVORS THE DESCENT OF THE SYSTEM TO THE SOUTH ON THE OTHER HAND. THIS WEEKEND, WITH THE WEAKENING OF THE SYSTEM, THE STEERING FLOW SHOULD GO DOWN IN LOW LAYERS AND DIRECT THE TRACK TOWARDS THE SOUTH-WEST AT FIRST, THEN CONTRADICTORY STEERING FLOWS SHOULD MAKE THE MOVEMENT QUASI-STATIONARY FROM MONDAY. THE UNCERTAINTY ON THE TRACK FORECAST INCREASES BEYOND 48 HOURS, MARKED BY A SIGNIFICANT DIVERGENCE OF THE US AND EUROPEAN ENSEMBLE FORECASTS. THE CMRS FORECAST IS BASED ON A COMPROMISE BETWEEN THE BEST AVAILABLE GUIDANCE, THE DISPERSION OF WHICH HAS INCREASED COMPARED TO PREVIOUS RUNS, LEADING TO A GREATER UNCERTAINTY ON THE TRACK OF THE SYSTEM BEYOND MONDAY.

FROM TODAY, THE STRENGTHENING OF THE NORTH-NORTHWESTERLY SHEAR ASSOCIATED WITH THE UPPER TROUGH SHOULD CAUSE INTRUSIONS OF DRY AIR, LEADING TO A MORE OR LESS RAPID WEAKENING FRANKLY DURING THE WEEKEND

AND THE REST OF NEXT WEEK. A SMALL TEMPORARY INCREASE IN INTENSITY COULD BE POSSIBLE BETWEEN MONDAY AND TUESDAY WHEN THE SYSTEM WILL BE QUASI-STATIONARY OVER A WEAK MID-TROPOSPHERE TROUGH, BY A MECHANISM SIMILAR TO THE SUBTROPICAL CYCLOGENESES (DECREASE OF THE SHEAR ALLOWING A REDEVELOPMENT OF THE WARM CORE).

ENALA DOES NOT POSE ANY THREAT TO INHABITED LANDS.