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

0.A WARNING NUMBER: 9/8/20222023
1.A SEVERE TROPICAL STORM 8 (ENALA)

2.A POSITION 2023/02/23 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 18.5 S / 71.5 E
(EIGHTEEN DECIMAL FIVE DEGREES SOUTH AND
SEVENTY ONE DECIMAL FIVE DEGREES EAST)
MOVEMENT: SOUTH-SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 4.0/4.0/D 1.0/12 H

4.A CENTRAL PRESSURE: 986 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 60 KT
RADIUS OF MAXIMUM WINDS (RMW): 28 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 150 SE: 155 SW: 150 NW: 155
34 KT NE: 85 SE: 75 SW: 75 NW: 85
48 KT NE: 45 SE: 35 SW: 40 NW: 45
64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 500 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/02/24 00 UTC: 20.2 S / 70.4 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 155 SE: 175 SW: 150 NW: 95
34 KT NE: 95 SE: 100 SW: 95 NW: 65
48 KT NE: 45 SE: 55 SW: 45 NW: 45

24H: 2023/02/24 12 UTC: 22.1 S / 69.2 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 150 SE: 205 SW: 175 NW: 95
34 KT NE: 75 SE: 120 SW: 65 NW: 65
48 KT NE: 35 SE: 45 SW: 45 NW: 45

36H: 2023/02/25 00 UTC: 23.6 S / 68.1 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 175 SE: 205 SW: 150 NW: 110
34 KT NE: 95 SE: 130 SW: 95 NW: 0

48H: 2023/02/25 12 UTC: 25.1 S / 67.0 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 150 SW: 205 NW: 95

34 KT NE: 0 SE: 100 SW: 95 NW: 0

60H: 2023/02/26 00 UTC: 25.8 S / 65.9 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 140 SE: 175 SW: 130 NW: 100
34 KT NE: 0 SE: 120 SW: 95 NW: 55

72H: 2023/02/26 12 UTC: 26.7 S / 64.5 E, VENT MAX= 035 KT, FILLING UP
28 KT NE: 140 SE: 205 SW: 140 NW: 0
34 KT NE: 0 SE: 140 SW: 0 NW: 0

2.B LONGER-RANGE OUTLOOK:
96H: 2023/02/27 12 UTC: 28.0 S / 63.5 E, VENT MAX= 035 KT, POST-TROPICAL DEPRESSION
28 KT NE: 140 SE: 175 SW: 130 NW: 95
34 KT NE: 0 SE: 130 SW: 0 NW: 0

120H: 2023/02/28 12 UTC: 27.7 S / 62.8 E, VENT MAX= 040 KT, POST-TROPICAL DEPRESSION
28 KT NE: 155 SE: 150 SW: 195 NW: 100
34 KT NE: 65 SE: 110 SW: 95 NW: 55

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

DURING THE LAST 6 HOURS, THE ENALA CLOUD PATTERN REMAINED IN A CDO STRUCTURE WITH COOLING CLOUD TOPS. A BEGINNING OF AN EYE WAS OBSERVED ON VISIBLE SATELLITE IMAGES BEFORE THE CDO STRUCTURE COLLAPSED AGAIN. THE F18 MICROWAVE PASS OF 1108UTC CONFIRMS THE LOCATION OF THE CENTER AND NOTES A SMALL WEAKNESS IN THE NORTHERN PART OF THE CIRCULATION. THE VALUE OF 60KT FOR THE ESTIMATED WINDS CAN BE GIVEN BY THE DVORAK METHOD. THIS LEAVES ENALA AT THE STAGE OF A STRONG TROPICAL STORM, WHICH IT SHOULD NOT EXCEED.

THE TRACK TOWARDS THE SOUTH-SOUTHWEST THAT STARTED RECENTLY 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 TOWARDS 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. BEFORE THE EVACUATION OF THE HIGH GEOPOTENTIALS PRESENT IN THE SOUTHEAST OF THE SYSTEM, CONTRADICTORY STEERING FLOWS WILL STOP THE MOVEMENT OF ENALA BY NEXT MONDAY. IN THESE CONDITIONS, THE UNCERTAINTY INCREASES IN THE DIFFERENT ENSEMBLE FORECASTS BUT WE CAN CONFIRM THAT THIS SYSTEM DOES NOT PRESENT ANY THREAT FOR THE INHABITED LANDS.

AT THE MOMENT CONDITIONS ARE STILL FAVORABLE FOR A SLIGHT INTENSIFICATION. HOWEVER, FROM FRIDAY AND ESPECIALLY SATURDAY, THE STRENGTHENING OF THE NORTH-WESTERN SHEAR ASSOCIATED WITH THE UPPER TROUGH SHOULD PROVOKE INTRUSIONS OF MORE MARKED DRY AIR, HENCE A MORE OR LESS RAPID WEAKENING EXPECTED DURING THE WEEKEND. THE

GUIDELINES ARE VERY DISPERSED ON THIS WEAKENING BUT IT SEEMS LIKELY THAT BY MONDAY, WHEN THE SYSTEM SLOWS DOWN, THE UPPER DYNAMICS ASSOCIATED WITH THE PASSAGE OF THE TROUGH WILL LEAD TO A REINTENSIFICATION OF BAROCLINIC ORIGIN. IN THESE CONDITIONS, THE SYSTEM SHOULD LOSE ITS PURELY TROPICAL CHARACTERISTICS AND MIGRATE INTO A POST-TROPICAL SYSTEM.

ENALA DO NOT THREATEN THE INHABITED ISLANDS.