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WTIO30 FMEE 230120
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 7/8/20222023
1.A MODERATE TROPICAL STORM 8 (ENALA)

2.A POSITION 2023/02/23 AT 0000 UTC:
WITHIN 20 NM RADIUS OF POINT 16.4 S / 72.5 E
(SIXTEEN DECIMAL FOUR DEGREES SOUTH AND
SEVENTY TWO DECIMAL FIVE DEGREES EAST)
MOVEMENT: SOUTH-WEST 11 KT

3.A DVORAK ANALYSIS: 3.0/3.0/S 0.0/6 H

4.A CENTRAL PRESSURE: 995 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 110 SE: 150 SW: 130 NW: 95
34 KT NE: 65 SE: 65 SW: 65 NW: 65

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 600 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/02/23 12 UTC: 18.2 S / 71.4 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 120 SE: 175 SW: 110 NW: 85
34 KT NE: 75 SE: 95 SW: 0 NW: 55

24H: 2023/02/24 00 UTC: 20.0 S / 70.4 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 175 SW: 130 NW: 95
34 KT NE: 75 SE: 100 SW: 85 NW: 65

36H: 2023/02/24 12 UTC: 21.8 S / 69.4 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 185 SW: 130 NW: 95
34 KT NE: 65 SE: 110 SW: 75 NW: 65

48H: 2023/02/25 00 UTC: 23.1 S / 68.4 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 155 SW: 175 NW: 95
34 KT NE: 65 SE: 100 SW: 75 NW: 65

60H: 2023/02/25 12 UTC: 24.3 S / 67.4 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 155 SW: 140 NW: 95
34 KT NE: 65 SE: 110 SW: 85 NW: 65

72H: 2023/02/26 00 UTC: 25.3 S / 66.3 E, VENT MAX= 030 KT, REMNANT LOW
28 KT NE: 130 SE: 130 SW: 120 NW: 0

2.B LONGER-RANGE OUTLOOK:
96H: 2023/02/27 00 UTC: 27.1 S / 63.9 E, VENT MAX= 030 KT, REMNANT LOW
28 KT NE: 0 SE: 130 SW: 0 NW: 0

120H: 2023/02/28 00 UTC: 27.6 S / 63.0 E, VENT MAX= 025 KT, REMNANT LOW

2.C ADDITIONAL INFORMATION:
T=CI=3.0-

SINCE 18Z, ENALA'S CLOUD PATTERN HAS BARELY CHANGED WITH THE MAIN CONVECTIVE ACTIVITY NEAR THE CENTER IN THE SOUTH WESTERN QUADRANT. THE 2235Z F18 MICROWAVE PASS SHOWS A DETERIORATION OF THE INTERNAL STRUCTURE WITH AN IMPORTANT WEAKNESS IN THE NORTHERN SECTOR. IN AGREEMENT WITH THE CIMSS ANALYSIS, THIS PATTERN IS PROBABLY RELATED TO A NORTHERLY TO NORTHWESTERLY MID LEVEL SHEAR. THE INTENSITY IS MAINTAINED AT 40KT, BUT THIS MAY BE A BIT CONSERVATIVE.

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.

DESPITE SEVERAL GREEN LIGHTS (A GOOD POLAR DIVERGENCE AND A FAVORABLE OCEANIC POTENTIAL), THE PRESENCE OF A MID LEVEL CONSTRAINT ALSO SEEN BY THE LATEST RUNS COULD FINALLY LIMIT THE DEVELOPMENT OF ENALA DURING THE NEXT 24 HOURS. A PASSAGE TO THE SEVERE TROPICAL STORM STAGE IS HOWEVER NOT EXCLUDED. FROM FRIDAY AND ESPECIALLY SATURDAY, THE STRENGTHENING OF THE NORTH-WESTERLY SHEAR ASSOCIATED WITH THE UPPER TROUGH SHOULD HOWEVER CAUSE MORE MARKED DRY AIR INTRUSIONS, HENCE A MORE OR LESS RAPID WEAKENING EXPECTED DURING THE WEEKEND. THE GUIDELINES ARE VERY SPREAD ON THIS WEAKENING. SOME MODELS PROPOSE INTENSIFICATIONS, NOTABLY GFS AT THE VERY END OF THE RANGE IN A LESS SHEARED ENVIRONMENT. HOWEVER, THE SLIGHT DECREASE IN OCEANIC POTENTIAL AND MOSTLY THE WEAKENING EXPECTED BEFORE MAKES THIS SCENARIO NOT VERY CONVINCING FOR THE MOMENT. THE RSMC FORECAST DOES NOT TAKE THIS INTO ACCOUNT AT THE MOMENT.

ENALA DO NOT THREATEN THE INHABITED ISLANDS.