

WTIO30 FMEE 240131

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 11/8/20222023

1.A TROPICAL CYCLONE 8 (ENALA)

2.A POSITION 2023/02/24 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 20.9 S / 70.5 E

(TWENTY DECIMAL NINE DEGREES SOUTH AND
SEVENTY DECIMAL FIVE DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: 4.0/4.5/W 0.5/6 H

4.A CENTRAL PRESSURE: 982 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 65 KT

RADIUS OF MAXIMUM WINDS (RMW): 31 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: 35 SW: 35 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 12 UTC: 23.1 S / 69.2 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 150 SE: 220 SW: 155 NW: 100

34 KT NE: 85 SE: 140 SW: 120 NW: 65

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

24H: 2023/02/25 00 UTC: 25.1 S / 68.0 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 165 SE: 215 SW: 165 NW: 95

34 KT NE: 85 SE: 140 SW: 110 NW: 65

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

36H: 2023/02/25 12 UTC: 26.5 S / 67.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 175 SE: 220 SW: 185 NW: 110

34 KT NE: 85 SE: 155 SW: 120 NW: 65

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

48H: 2023/02/26 00 UTC: 27.7 S / 66.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 195 SE: 230 SW: 175 NW: 110

34 KT NE: 95 SE: 165 SW: 130 NW: 75

48 KT NE: 45 SE: 65 SW: 75 NW: 45

60H: 2023/02/26 12 UTC: 28.8 S / 65.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 195 SE: 215 SW: 155 NW: 110
34 KT NE: 95 SE: 155 SW: 120 NW: 65
48 KT NE: 45 SE: 65 SW: 65 NW: 45

72H: 2023/02/27 00 UTC: 29.4 S / 64.3 E, VENT MAX= 045 KT, POST-TROPICAL
DEPRESSION
28 KT NE: 195 SE: 195 SW: 150 NW: 130
34 KT NE: 95 SE: 150 SW: 95 NW: 65

2.B LONGER-RANGE OUTLOOK:

96H: 2023/02/28 00 UTC: 28.6 S / 64.1 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM
28 KT NE: 215 SE: 205 SW: 175 NW: 130
34 KT NE: 100 SE: 155 SW: 130 NW: 95

120H: 2023/03/01 00 UTC: 28.8 S / 63.5 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION
28 KT NE: 240 SE: 250 SW: 195 NW: 140
34 KT NE: 120 SE: 185 SW: 140 NW: 85

2.C ADDITIONAL INFORMATION:

T=4.0 CI=4.5-

ENALA'S INTENSITY HAS BEEN REVISED UPWARDS AFTERHAND. THURSDAY'S 1343Z
SMAP PASS AT 65KT, ASCAT DATA AT 55KT, THE EYE PATTERN ON MICROWAVE
IMAGES AND THE CDO PATTERN LEADING TO A DT CLOSE TO 4.5 ON THURSDAY
AFTERNOON AND EVENING, LEAD TO ESTIMATE THE INTENSITY AT 65KT AT 12 AND
18UTC. THE BEST-TRACK HAS BEEN CORRECTED ACCORDINGLY. BETWEEN 18 AND
00UTC, CONVECTION HAS DECREASED A BIT AND HAS BECOME MORE
ASYMMETRIC, DUE TO INCREASING WIND SHEAR, WHICH GIVES A DT DOWN TO 4.0.
THE 2049Z AMSR2 MICROWAVE PASS SHOWS A STILL WELL-DEFINED EYE
STRUCTURE AT 37GHZ DESPITE A WEAKNESS ON THE NORTHERN SIDE DUE TO
SHEAR. BY INERTIA THE INTENSITY IS LEFT AT 65KT. THE SYSTEM'S ANALYZED
TRACK IS SLIGHTLY DISPLACED TO THE EAST COMPARED TO PREVIOUS FORECASTS
AND WITH A SLIGHTLY FASTER FORWARD SPEED. THE GFS MODEL SEEMS TO BE THE
BEST FIT TO THE OBSERVED TRACK AND INTENSITY.

ENALA'S SOUTH-SOUTHWESTWARD TRACK SHOULD CONTINUE UNTIL SATURDAY,
BETWEEN THE HIGH SUBTROPICAL GEOPOTENTIALS LOCATED EAST OF THE
SYSTEM ON THE ONE HAND, AND A WEAK TUTT THAT FAVORS THE SOUTHWARD
DESCENT OF THE SYSTEM, ON THE OTHER HAND. THIS WEEKEND, WHILE THE
SYSTEM WEAKENS, THE STEERING FLOW SHOULD MOVE DOWN TO LOWER LEVELS
AND DRIVE THE SYSTEM A BIT MORE TO THE SOUTH-WEST AT FIRST BEFORE
STALLING FROM MONDAY DUE TO CONTRADICTORY STEERING FLOWS. THE TRACK
FORECAST UNCERTAINTY INCREASES FROM THERE ON.

FROM FRIDAY AND ESPECIALLY SATURDAY, INCREASING NORTH-NORTHWESTERLY
WIND SHEAR ASSOCIATED WITH THE UPPER TROUGH SHOULD CAUSE DRY AIR
INTRUSIONS, LEADING TO MORE OR LESS RAPID WEAKENING DURING THE

WEEKEND. GUIDANCE TEND TO DISAGREE ABOUT THIS WEAKENING. THE WEAKENING TREND HAS BEEN LIMITED IN THE PRESENT FORECAST IN ORDER TO TAKE INTO ACCOUNT THE CURRENTLY RELEVANT GFS SCENARIO. A SLIGHT TEMPORARY REINTENSIFICATION SEEMS POSSIBLE BETWEEN MONDAY AND TUESDAY WHEN THE SYSTEM WILL BE QUASI-STATIONARY UNDER THE TUTT, BY A MECHANISM SIMILAR TO THE SUBTROPICAL CYCLOGENESES (DECREASING SHEAR ENABLING REBUILDING OF THE WARM CORE).

ENALA DOES NOT POSE ANY THREAT TO INHABITED LANDS.