

WTIO30 FMEE 220645

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 29/5/20212022

1.A TROPICAL CYCLONE 5 (EMNATI)

2.A POSITION 2022/02/22 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 20.0 S / 50.3 E
(TWENTY DECIMAL ZERO DEGREES SOUTH AND
FIFTY DECIMAL THREE DEGREES EAST)

MOVEMENT: SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: 4.0/5.0/W 0.5/24 H

4.A CENTRAL PRESSURE: 960 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 75 KT
RADIUS OF MAXIMUM WINDS (RMW): 65 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):

28 KT NE: 335 SE: 480 SW: 350 NW: 220

34 KT NE: 295 SE: 350 SW: 315 NW: 150

48 KT NE: 195 SE: 240 SW: 170 NW: 130

64 KT NE: 130 SE: 150 SW: 85 NW: 85

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1003 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/02/22 18 UTC: 21.4 S / 48.5 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 435 SE: 520 SW: 175 NW: 230

34 KT NE: 295 SE: 335 SW: 150 NW: 185

48 KT NE: 195 SE: 240 SW: 130 NW: 110

64 KT NE: 130 SE: 150 SW: 65 NW: 65

24H: 2022/02/23 06 UTC: 22.7 S / 47.1 E, VENT MAX= 050 KT, OVERLAND DEPRESSION

28 KT NE: 400 SE: 555 SW: 0 NW: 0

34 KT NE: 250 SE: 335 SW: 0 NW: 0

48 KT NE: 165 SE: 205 SW: 0 NW: 0

36H: 2022/02/23 18 UTC: 24.9 S / 44.7 E, VENT MAX= 045 KT, OVERLAND DEPRESSION

28 KT NE: 380 SE: 490 SW: 345 NW: 280

34 KT NE: 0 SE: 305 SW: 230 NW: 215

48H: 2022/02/24 06 UTC: 26.3 S / 42.9 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 370 SE: 510 SW: 325 NW: 325

34 KT NE: 220 SE: 325 SW: 240 NW: 230

60H: 2022/02/24 18 UTC: 28.1 S / 42.0 E, VENT MAX= 045 KT, POST-TROPICAL DEPRESSION

28 KT NE: 470 SE: 520 SW: 370 NW: 315

34 KT NE: 280 SE: 335 SW: 270 NW: 230

72H: 2022/02/25 06 UTC: 29.6 S / 41.6 E, VENT MAX= 050 KT, POST-TROPICAL DEPRESSION

28 KT NE: 535 SE: 535 SW: 435 NW: 380

34 KT NE: 305 SE: 360 SW: 345 NW: 260

48 KT NE: 95 SE: 150 SW: 150 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2022/02/26 06 UTC: 31.9 S / 42.5 E, VENT MAX= 050 KT, POST-TROPICAL DEPRESSION

28 KT NE: 490 SE: 575 SW: 535 NW: 445

34 KT NE: 280 SE: 390 SW: 350 NW: 295

48 KT NE: 95 SE: 150 SW: 165 NW: 130

120H: 2022/02/27 06 UTC: 34.1 S / 42.2 E, VENT MAX= 035 KT, POST-TROPICAL DEPRESSION

28 KT NE: 360 SE: 600 SW: 445 NW: 315

34 KT NE: 185 SE: 415 SW: 315 NW: 230

2.C ADDITIONAL INFORMATION:

T=4.0+ CI=5.0

DURING THE LAST 6 HOURS, THE EYE PATTERN OF EMNATI HAS DEGRADED WITH AN EYE LOSING IN DEFINITION ASSOCIATED WITH LESS COLD CLOUD TOPS. A SAR S1 PASS AT 0203Z THIS MORNING HAS ALLOWED TO ASSESS THE INTENSITY AND THE STRUCTURE OF THE CYCLONE AND IS USED AS A BASIS FOR THE PRESENT INTENSITY ESTIMATE.

THE MOVEMENT OF EMNATI REMAINS SOUTHWESTWARD UNDER THE EFFECT OF THE SUBTROPICAL RIDGE SOUTHEAST OF THE SYSTEM. THE TRACK FORECAST IS BASED ON A NOW FAIRLY STABLE CONSENSUS TRACK FORECAST WITH INCREASING CONFIDENCE IN THE TARGETING OF THE IMPACT ZONE WHICH WILL OCCUR IN A LITTLE OVER A DOZEN HOURS. EMNATI SHOULD THEN MOVE BACK OVER SEAS ON WEDNESDAY NIGHT SOUTH OF MADAGASCAR. A SMALL WEAKNESS OF THE HIGH GEOPOTENTIALS IN THE SOUTH-WEST AND A STRENGTHENING OF THE RIDGE MORE IN THE EAST SHOULD MAKE SLOWLY DRIFT THE SYSTEM TOWARDS THE SOUTH, CROSSING THE 30TH PARALLEL ON FRIDAY, BUT WITHOUT FAST EVACUATION TOWARDS THE MID-LATITUDES BECAUSE OF THE PASSAGE FROM SATURDAY OF A CELL OF HIGH PRESSURE IN THE SOUTH OF THE SYSTEM.

IN TERMS OF INTENSITY, DESPITE FAVORABLE ATMOSPHERIC CONDITIONS, EMNATI IS UNABLE TO INTENSIFY. AN INSUFFICIENT OCEANIC POTENTIAL (AS THE SYSTEM PASSES OVER WATERS COOLED BY BATSIRAI) AND AN EXOTIC WIND STRUCTURE WITH AN INCOMPLETE ERC, SEEM TO BE THE MAIN REASONS FOR A LIMITATION OF THE INTENSITY. BETWEEN WEDNESDAY EVENING AND THURSDAY, EMNATI SHOULD EMERGE AT SEA IN A WEAKENED STATE AND WITH AN ILL-DEFINED CENTER.

CONDITIONS SHOULD NOT BE FAVORABLE FOR A RE-INTENSIFICATION WITH PURELY TROPICAL CHARACTERISTICS. FROM THURSDAY EVENING, AN INTERACTION WITH THE JET SHOULD INDUCE THE BEGINNING OF AN EXTRA-TROPICAL TRANSITION.

IMPACTS ON INHABITED LANDS :

- MADAGASCAR : ENMATI WILL MAKE LANDFALL NEXT NIGHT (SHORTLY AFTER 18 UTC) IN THE PROVINCE OF FIANARANTSOA BETWEEN MANANJARY AND MANAKARA. EVEN IF THE INTENSITY FORECAST IS REDUCED, EMNATI REMAINS A LARGE AND DANGEROUS CYCLONE LIKELY TO CAUSE CONSIDERABLE DAMAGE ON THE AFFECTED AREAS:

-WINDS: NEAR THE IMPACT AREA AND UP TO 100-150 KM SOUTH OF THE CENTER, DESTRUCTIVE GUSTS BETWEEN 150 AND 200 KM/H ARE TO BE EXPECTED.

-RAIN: VERY IMPORTANT RAINFALL TOTALS ARE EXPECTED ALONG THE TRAJECTORY, OF THE ORDER OF 150-250 MM IN 24 HOURS IN THE PLAIN AND UP TO 400-500 MM ON THE RELIEF. THESE HEAVY RAINS CAN CREATE IMPORTANT FLOODS AND LANDSLIDES IN THE REGION.

-SEA: THE COMBINATION OF A CYCLONIC SWELL ASSOCIATED WITH WAVES CLOSE TO 10 METERS OFFSHORE AND A SEA LEVEL RISE OF ABOUT 1M, MAY GENERATE SIGNIFICANT FLOODING IN COASTAL AREAS LOCATED SOUTH OF THE CENTER (UP TO 100-150 KM SOUTH OF THE CENTER).

THE INHABITANTS ARE INVITED TO FOLLOW WITH ATTENTION THE EVOLUTION OF THIS SYSTEM AND TO FOLLOW THE INSTRUCTIONS OF THE AUTHORITIES.