

WTIO30 FMEE 251241

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 24/5/20222023

1.A TROPICAL CYCLONE 5 (CHENESO)

2.A POSITION 2023/01/25 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 20.0 S / 42.9 E

(TWENTY DECIMAL ZERO DEGREES SOUTH AND
FORTY TWO DECIMAL NINE DEGREES EAST)

MOVEMENT: QUASI-STATIONARY.

3.A DVORAK ANALYSIS: 4.5/4.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 973 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 41 KM

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

28 KT NE: 240 SE: 175 SW: 205 NW: 240

34 KT NE: 140 SE: 130 SW: 140 NW: 150

48 KT NE: 95 SE: 85 SW: 80 NW: 95

64 KT NE: 45 SE: 0 SW: 0 NW: 45

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 1500 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/01/26 00 UTC: 20.1 S / 43.3 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 250 SE: 185 SW: 315 NW: 205

34 KT NE: 140 SE: 130 SW: 130 NW: 110

48 KT NE: 75 SE: 85 SW: 75 NW: 65

64 KT NE: 35 SE: 35 SW: 35 NW: 35

24H: 2023/01/26 12 UTC: 20.9 S / 42.5 E, VENT MAX= 080 KT, TROPICAL CYCLONE

28 KT NE: 280 SE: 335 SW: 415 NW: 205

34 KT NE: 155 SE: 205 SW: 230 NW: 120

48 KT NE: 85 SE: 85 SW: 85 NW: 65

64 KT NE: 45 SE: 45 SW: 35 NW: 45

36H: 2023/01/27 00 UTC: 21.6 S / 41.7 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 295 SE: 400 SW: 415 NW: 230

34 KT NE: 165 SE: 240 SW: 240 NW: 120

48 KT NE: 75 SE: 95 SW: 95 NW: 75

64 KT NE: 55 SE: 65 SW: 55 NW: 55

48H: 2023/01/27 12 UTC: 22.6 S / 40.7 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 335 SE: 455 SW: 380 NW: 295

34 KT NE: 185 SE: 295 SW: 250 NW: 155

48 KT NE: 95 SE: 95 SW: 95 NW: 85

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

60H: 2023/01/28 00 UTC: 23.7 S / 40.1 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 390 SE: 345 SW: 315 NW: 285

34 KT NE: 215 SE: 230 SW: 205 NW: 165

48 KT NE: 100 SE: 100 SW: 100 NW: 95

64 KT NE: 75 SE: 75 SW: 65 NW: 65

72H: 2023/01/28 12 UTC: 25.1 S / 40.3 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 405 SE: 390 SW: 285 NW: 270

34 KT NE: 220 SE: 260 SW: 215 NW: 175

48 KT NE: 110 SE: 100 SW: 100 NW: 95

64 KT NE: 85 SE: 75 SW: 75 NW: 75

2.B LONGER-RANGE OUTLOOK:

96H: 2023/01/29 12 UTC: 28.5 S / 43.0 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 455 SE: 345 SW: 295 NW: 305

34 KT NE: 240 SE: 250 SW: 195 NW: 195

48 KT NE: 110 SE: 100 SW: 100 NW: 95

64 KT NE: 85 SE: 65 SW: 65 NW: 75

120H: 2023/01/30 12 UTC: 32.4 S / 49.9 E, VENT MAX= 065 KT, POST-TROPICAL DEPRESSION

28 KT NE: 500 SE: 360 SW: 425 NW: 480

34 KT NE: 260 SE: 280 SW: 195 NW: 285

48 KT NE: 130 SE: 100 SW: 110 NW: 110

64 KT NE: 70 SE: 50 SW: 50 NW: 90

2.C ADDITIONAL INFORMATION:

T=CI=4.5-

SINCE THIS MORNING, CHENESO HAS MAINTAINED A HIGH-END CURVED BAND PATTERN, BUT WITH A TEMPORARY WEAKNESS AROUND MIDDAY, BEFORE A RENEWED ORGANIZATION SINCE MID-AFTERNOON WHICH IS NOW EVOLVING SINCE 12UTC INTO AN BANDED-EYE THEN EYE PATTERN, WITH A DT BETWEEN 4.0 AND 4.5. OBJECTIVE GUIDANCE MAINLY SHOW AN INTENSIFICATION TREND SINCE THIS MORNING. THE INTENSITY IS THUS INCREASED TO MINIMAL TROPICAL CYCLONE STAGE. THE CENTER OF THE SYSTEM REMAINS SLOW-MOVING ABOUT 140 KM OFF THE MALAGASY COAST OFF THE MORONDAVA AREA.

THE TRACK FORECAST CONTINUES TO BE RATHER UNCERTAIN FROM THE FIRST FORECAST STAGES : DURING THE NEXT 12 TO 24 HOURS, THE SYSTEM SHOULD CONTINUE TO MOVE VERY SLOWLY UNDER THE INFLUENCE OF CONTRADICTORY STEERING FLOWS (EAST/SOUTHEASTWARD MOVEMENT LINKED TO A NEAR-EQUATORIAL RIDGE, WHICH IS OFFSET BY THE WEST/NORTHWESTWARD

STEERING FLOW LINKED TO A SUBTROPICAL RIDGE). THE TRACK COULD THUS GET CLOSER TO THE MALAGASY COAST BETWEEN TONIGHT AND THURSDAY, AT A DISTANCE REMAINING VERY UNCERTAIN (CLOSE TO 100 KM IN THE PRESENT FORECAST, ALTHOUGH A MORE PESSIMISTIC OPTION CANNOT BE RULED OUT). FROM THURSDAY, THE SUBTROPICAL RIDGE WEAKENS TO THE SOUTHWEST AND A RIDGE BUILDS UP TO THE EAST OF THE SYSTEM, DIRECTING THE TRACK MORE FRANKLY TO THE SOUTHWEST, THEN CURVING SOUTHEASTWARDS FROM SATURDAY AHEAD OF A MID-LATITUDE TROUGH.

THE SYSTEM IS IN A FAVORABLE ATMOSPHERIC AND OCEANIC ENVIRONMENT, FAVORING A GENERAL INTENSIFICATION TREND UNTIL SATURDAY. NEVERTHELESS, ITS LONG-LASTING STATIONARITY ON THE SAME WATERS IS LIKELY TO LIMIT DEVELOPMENT IN THE SHORT TERM DUE TO UPWELLING. STEADIER INTENSIFICATION SHOULD RESUME ONCE THE SYSTEM STARTS TO ACCELERATE SOUTHWESTWARDS FROM THURSDAY. INTENSE TROPICAL CYCLONE STAGE IS THUS EXPECTED BETWEEN FRIDAY AND SATURDAY. HOWEVER, INTERNAL MECHANISMS, SUCH AS AN EYEWALL REPLACEMENT CYCLE, COULD ALSO POSSIBLY TEMPER ITS INTENSIFICATION. BETWEEN SUNDAY AND ESPECIALLY MONDAY, WHILE THE SYSTEM MOVES OVER INCREASINGLY COOL WATERS AND WITH INCREASING SHEAR AND DRY AIR INTRUSIONS LINKED TO A MID-LATITUDE TROUGH, THE SYSTEM SHOULD START ITS EXTRA-TROPICAL TRANSITION.

IMPACTS ON INHABITED LANDS DURING THE NEXT 72H.

MADAGASCAR:

- IN ADDITION TO THE RECENTLY OBSERVED RAIN TOTALS, HEAVY RAINFALL WILL CONTINUE MAINLY OVER THE COASTAL AREAS OF THE CENTRAL WEST, WITH RAINFALL EXCEEDING 150 MM OVER THE PERIOD.

- A SEVERE WINDS EPISODE (IN THE GALE RANGE) IS UNDERWAY ON PARTS OF THE COAST BETWEEN MORONDAVA AND CAPE SAINT-VINCENT AND IS EXPECTED TO CONTINUE UNTIL TOMORROW. LOCAL DESTRUCTIVE WINDS (STORM FORCE) CANNOT BE RULED OUT IN CASE OF A TRACK MOVING CLOSER TO THE COAST.

- DANGEROUS SEA (WAVES FROM 4 TO 6M) ARE EXPECTED BETWEEN MAINTIRANO AND CAPE SAINT-VINCENT UNTIL THURSDAY.

MOZAMBIQUE :

- DANGEROUS SEA (WAVE NEAR 4M) IS LIKELY ON THURSDAY FROM INHAMBANE TO MOZAMBIQUE ISLAND.