

WTIO30 FMEE 290636

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 39/5/20222023

1.A POST-TROPICAL DEPRESSION 5 (EX-CHENESO)

2.A POSITION 2023/01/29 AT 0600 UTC:

WITHIN 30 NM RADIUS OF POINT 28.7 S / 45.2 E

(TWENTY EIGHT DECIMAL SEVEN DEGREES SOUTH AND  
FORTY FIVE DECIMAL TWO DEGREES EAST)

MOVEMENT: SOUTH-EAST 12 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 980 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 465 SE: 595 SW: 280 NW: 370

34 KT NE: 295 SE: 295 SW: 220 NW: 240

48 KT NE: 165 SE: 0 SW: 170 NW: 0

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

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/01/29 18 UTC: 31.2 S / 49.6 E, VENT MAX= 045 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 535 SE: 500 SW: 335 NW: 380

34 KT NE: 280 SE: 325 SW: 205 NW: 230

24H: 2023/01/30 06 UTC: 33.6 S / 54.4 E, VENT MAX= 045 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 545 SE: 415 SW: 305 NW: 435

34 KT NE: 285 SE: 280 SW: 185 NW: 260

36H: 2023/01/30 18 UTC: 37.5 S / 60.1 E, VENT MAX= 045 KT, EXTRATROPICAL  
DEPRESSION

28 KT NE: 650 SE: 425 SW: 455 NW: 575

34 KT NE: 335 SE: 305 SW: 185 NW: 335

48H: 2023/01/31 06 UTC: 44.3 S / 66.1 E, VENT MAX= 050 KT, EXTRATROPICAL  
DEPRESSION

28 KT NE: 880 SE: 555 SW: 325 NW: 455

34 KT NE: 465 SE: 405 SW: 220 NW: 335

48 KT NE: 175 SE: 95 SW: 150 NW: 95

60H: 2023/01/31 18 UTC: 50.7 S / 72.1 E, VENT MAX= 050 KT, EXTRATROPICAL DEPRESSION

28 KT NE: 990 SE: 630 SW: 520 NW: 510

34 KT NE: 510 SE: 480 SW: 400 NW: 360

48 KT NE: 155 SE: 95 SW: 155 NW: 45

## 2.B LONGER-RANGE OUTLOOK:

NIL

## 2.C ADDITIONAL INFORMATION:

DURING THE LAST 6H, DEEP CONVECTION HAS REMAINED MINIMAL AND POORLY ORGANIZED NEAR THE CENTER OF THE SYSTEM DUE TO THE DEGRADATION OF ENVIRONMENTAL CONDITIONS. THE PHASE DIAGRAMS BASED ON THE SHORT RANGE FORECASTS OF THE GLOBAL MODELS SUGGEST THAT IF THE SYSTEM STILL SEEMS TO HAVE A DEEP ENOUGH WARM CORE, THIS ONE IS MORE AND MORE ASYMMETRICAL. THIS ASYMMETRICAL ASPECT IS ALSO EVIDENT ON THE WIND FIELD DEDUCED FROM SMAP AND SAR DATA (RCM-1) OF THE LAST 12 HOURS. AS A CONSEQUENCE, THE SYSTEM IS NOW CLASSIFIED AS A POST-TROPICAL DEPRESSION. THE SMAP DATA OF THE 0239Z MOWING THIS MORNING AT 53 KT ALLOW TO MAINTAIN THE ESTIMATED INTENSITY AT 50 KT. THE WATER VAPOR IMAGERY ALSO SHOWS THAT THE SYSTEM IS INTERACTING WITH A WARM ENTRY OF A BRANCH OF THE SUBTROPICAL JET.

UNDER THE INFLUENCE OF THE NEAR EQUATORIAL RIDGE AND AHEAD OF AN UPPER TROUGH ARRIVING FROM THE WEST DURING THE DAY, EX-CHENESO WILL CONTINUE TO ACCELERATE IN A SOUTHEASTERLY DIRECTION TOWARDS THE MID-LATITUDES, REACHING THE AMSTERDAM CROZET KERGUELEN AREA ON SUNDAY NIGHT AND MONDAY, WITH A PASSAGE CLOSE TO KERGUELEN LATE TUESDAY. THIS SCENARIO IS CURRENTLY THE CONSENSUS AMONG ALL THE NUMERICAL MODELS.

EX-CHENESO IS IN AN INCREASINGLY HOSTILE ENVIRONMENT FOR TROPICAL PHENOMENA AND IT IS THE BAROCLINIC PROCESSES THAT WILL BECOME THE MAIN ONES TO MAINTAIN THE STRONG WINDS WITHIN THE CIRCULATION. THE SYSTEM SHOULD THUS BE IN FAVORABLE INTERACTION WITH AN UPPER LEVEL WAVE CIRCULATING AT THE LEVEL OF THE JET. EX-CHENESO IS THUS EXPECTED TO COMPLETE ITS EXTRATROPICAL TRANSITION IN LESS THAN 48 HOURS.

## IMPACTS ON INHABITED LANDS DURING THE NEXT 72 HOURS:

MADAGASCAR: WINDS ARE WEAKENING OVER SOUTHERN MADAGASCAR. THERE IS NO MORE SIGNIFICANT INFLUENCE.