

WTIO30 FMEE 281836

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 37/5/20222023

1.A SEVERE TROPICAL STORM 5 (CHENESO)

2.A POSITION 2023/01/28 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 26.5 S / 42.1 E

(TWENTY SIX DECIMAL FIVE DEGREES SOUTH AND
FORTY TWO DECIMAL ONE DEGREES EAST)

MOVEMENT: SOUTH 9 KT

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

4.A CENTRAL PRESSURE: 977 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 400 SE: 620 SW: 315 NW: 280

34 KT NE: 285 SE: 400 SW: 155 NW: 175

48 KT NE: 185 SE: 205 SW: 80 NW: 85

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 1300 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/01/29 06 UTC: 28.9 S / 44.7 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 400 SE: 620 SW: 315 NW: 280

34 KT NE: 285 SE: 400 SW: 155 NW: 175

48 KT NE: 185 SE: 205 SW: 85 NW: 85

24H: 2023/01/29 18 UTC: 30.7 S / 48.0 E, VENT MAX= 050 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 500 SE: 500 SW: 270 NW: 370

34 KT NE: 270 SE: 335 SW: 155 NW: 240

48 KT NE: 110 SE: 85 SW: 75 NW: 45

36H: 2023/01/30 06 UTC: 32.7 S / 53.0 E, VENT MAX= 045 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 510 SE: 435 SW: 315 NW: 425

34 KT NE: 270 SE: 305 SW: 195 NW: 220

48H: 2023/01/30 18 UTC: 35.2 S / 57.9 E, VENT MAX= 045 KT, EXTRATROPICAL
DEPRESSION

28 KT NE: 595 SE: 465 SW: 295 NW: 435
34 KT NE: 315 SE: 335 SW: 150 NW: 195

2.B LONGER-RANGE OUTLOOK:
NIL

2.C ADDITIONAL INFORMATION:
T=4.0 CI=4.5

DURING THE LAST SIX HOURS, UNDER THE CONSTRAINT OF A 20-25KT NORTHWESTERLY UPPER SHEAR, THE CONVECTION NEAR THE CENTER OF CHENESO HAS WEAKENED CONSIDERABLY AND THE CLOUD STRUCTURE HAS BECOME MORE OF A SPIRAL BAND STRUCTURE. ALTHOUGH PARTIAL, THE 1514Z SSMIS MICROWAVE IMAGE SHOWS AN ABSENCE OF CONVECTION IN THE NORTHEAST QUADRANT AND SLIGHTLY MORE CONVECTION REJECTED TO THE SOUTH AWAY FROM THE CENTER. ACCORDING TO THE LAST OBJECTIVE GUIDANCE (SATCON, ADT) AND SUBJECTIVE ESTIMATES, CHENESO IS RETROGRADE TO A STRONG TROPICAL STORM WITH WINDS AROUND 55KT.

UNDER THE INFLUENCE OF THE NEAR EQUATORIAL RIDGE LOCATED TO THE NORTHEAST AND THEN IN A SECOND TIME IN FRONT OF A HIGH TROUGH ARRIVING FROM THE WEST AT THE END OF THE WEEKEND, CHENESO WILL PROGRESSIVELY ACCELERATE TOWARDS THE SOUTHEAST TOWARDS THE MID-LATITUDES, REACHING THE AMSTERDAM CROZET KERGUELEN AREA, ON SUNDAY EVENING OR DURING THE NIGHT OF SUNDAY TO MONDAY. THIS SCENARIO IS CURRENTLY THE CONSENSUS AMONG ALL THE NUMERICAL MODELS.

WITH A MOVEMENT TOWARDS THE SOUTH-EAST, CHENESO STILL BENEFITS FOR A FEW HOURS, FROM A GOOD OCEANIC POTENTIAL AS WELL AS A VERY GOOD UPPER LEVEL DIVERGENCE , IN THE SOUTHERN SEMICIRCLE. HOWEVER FROM SUNDAY, CHENESO SHOULD ENCOUNTER MUCH COOLER SURFACE WATERS, ASSOCIATED WITH AN INCREASE IN UPPER WINDSHEAR FAVORING THE INTRUSION OF DRY AIR IN THE HEART OF THE SYSTEM, AHEAD OF A DEEP UPPER TROUGH PROGRESSING FROM THE WEST. CHENESO WILL THUS UNDERGO A PROGRESSIVE WEAKENING, LEADING IT TO LOSE GRADUALLY ITS TROPICAL FEATURES AT THE BEGINNING OF NEXT WEEK.

IMPACTS ON INHABITED LANDS DURING THE NEXT 48H TO 72H:
MADAGASCAR:

- STRONG WINDS (GALE FORCE) ACCOMPANIED BY GUSTS CLOSE TO 100 KM/H AND A DANGEROUS SEA (4 TO 6M WAVES) CONTINUE TO OCCUR ALONG THE PROVINCES OF ATSIMO-ANDREFANA AND ANDROY IN THE NEXT FEW HOURS, BEFORE WEAKENING SIGNIFICANTLY TOMORROW DURING THE DAY.