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RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 18/5/20222023
1.A TROPICAL DEPRESSION 5 (CHENESO)

2.A POSITION 2023/01/24 AT 0000 UTC:
WITHIN 40 NM RADIUS OF POINT 20.1 S / 42.7 E
(TWENTY DECIMAL ONE DEGREES SOUTH AND
FORTY TWO DECIMAL SEVEN DEGREES EAST)
MOVEMENT: NORTH 3 KT

3.A DVORAK ANALYSIS: 1.0/1.0/S 0.0/0 H

4.A CENTRAL PRESSURE: 998 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 75 SE: 95 SW: 85 NW: 75
34 KT NE: 0 SE: 0 SW: 0 NW: 0
48 KT NE: 0 SE: 0 SW: 0 NW: 0
64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 1300 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/01/24 12 UTC: 19.6 S / 42.5 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 150 SE: 345 SW: 315 NW: 85
34 KT NE: 85 SE: 220 SW: 150 NW: 0

24H: 2023/01/25 00 UTC: 19.7 S / 42.1 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 165 SE: 150 SW: 140 NW: 100
34 KT NE: 95 SE: 85 SW: 75 NW: 55

36H: 2023/01/25 12 UTC: 20.0 S / 42.2 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 195 SE: 350 SW: 335 NW: 185
34 KT NE: 110 SE: 220 SW: 205 NW: 110

48H: 2023/01/26 00 UTC: 20.1 S / 41.9 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 220 SE: 220 SW: 370 NW: 205
34 KT NE: 130 SE: 120 SW: 155 NW: 130

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

60H: 2023/01/26 12 UTC: 20.3 S / 41.7 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM
28 KT NE: 270 SE: 260 SW: 380 NW: 240
34 KT NE: 155 SE: 150 SW: 175 NW: 155
48 KT NE: 75 SE: 75 SW: 75 NW: 85

72H: 2023/01/27 00 UTC: 20.6 S / 41.2 E, VENT MAX= 070 KT, TROPICAL CYCLONE
28 KT NE: 305 SE: 345 SW: 370 NW: 260
34 KT NE: 175 SE: 195 SW: 215 NW: 150
48 KT NE: 85 SE: 95 SW: 85 NW: 85
64 KT NE: 75 SE: 65 SW: 65 NW: 55

2.B LONGER-RANGE OUTLOOK:
96H: 2023/01/28 00 UTC: 22.3 S / 39.9 E, VENT MAX= 085 KT, TROPICAL CYCLONE
28 KT NE: 345 SE: 360 SW: 315 NW: 260
34 KT NE: 195 SE: 220 SW: 195 NW: 195
48 KT NE: 95 SE: 95 SW: 95 NW: 95
64 KT NE: 85 SE: 65 SW: 65 NW: 75

120H: 2023/01/29 00 UTC: 25.2 S / 40.8 E, VENT MAX= 080 KT, TROPICAL CYCLONE
28 KT NE: 360 SE: 315 SW: 285 NW: 260
34 KT NE: 205 SE: 205 SW: 195 NW: 195
48 KT NE: 100 SE: 90 SW: 90 NW: 100
64 KT NE: 90 SE: 60 SW: 60 NW: 70

2.C ADDITIONAL INFORMATION:
DURING THE LAST 6 HOURS, THE CONVECTION HAS CONTINUED TO ORGANIZE AROUND THE CHENESO LOW. IT HAS WRAPPED MORE AROUND THE CENTER AND HAS STARTED TO TAKE A CURVED BAND PATTERN IN THE NORTHERN QUADRANT. THE 2256Z GPM MICROWAVE IMAGE HAS POSITIONED THE CENTER ABOUT 140KM WEST-NORTHWEST OF THE CITY OF BELO. IT ALSO SHOWS A CLEARER STRUCTURE AROUND THE CENTER. THE RSMC HAS THEREFORE UPGRADED THE INTENSITY TO A TROPICAL DEPRESSION WITH ESTIMATED WINDS OF 30KT.

CHENESO SHOULD BE DRIVEN BY AN EASTERLY TO SOUTHEASTERLY LOW TO MID-TROPOSPHERE FLOW GENERATED BY A SUBTROPICAL RIDGE LOCATED SOUTH AND SOUTHWEST OF THE SYSTEM. HOWEVER, THE ACTION OF THIS RIDGE WILL BE COUNTERACTED BY THE PRESENCE OF A NEAR EQUATORIAL RIDGE TO THE NORTH, WHICH WILL PRODUCE A CONTRADICTORY WEST TO NORTHWEST FLOW. AS A RESULT, DURING THE NEXT THREE DAYS, THE SYSTEM SHOULD MOVE SLOWLY IN A GENERAL NORTH-WESTERLY DIRECTION. AN ERRATIC TRAJECTORY, WITH POSSIBLE MOMENTS OF QUASI-STATIONARITY, ARE POSSIBLE DURING THIS PERIOD. IN THE SECOND PART OF THE WEEK, A BENDING OF THE TRACK TOWARDS THE SOUTH-WEST AND THEN THE SOUTH IS PROPOSED BY A LARGE MAJORITY OF THE ENSEMBLISTIC AND DETERMINIST MODELS BUT THE TIMING AND THE DEGREE OF BENDING IS STILL VERY UNCERTAIN AT THIS STAGE. THE GFS MODEL LACKS STABILITY BETWEEN ITS LAST RUNS WITH A SCENARIO CLOSER TO THE MALAGASY COASTS AND A SCENARIO MORE ON THE CENTER OF THE CHANNEL. IFS NOW SEEMS TO PROPOSE A MORE STABLE SCENARIO ON THE CENTER OF THE CHANNEL. THE PRESENT FORECAST IS THEREFORE MAINLY BASED ON THE IFS TREND AND THEREFORE REVISED SLIGHTLY MORE TO THE WEST THAN THE PREVIOUS ONES.

HOWEVER, THERE IS STILL SOME UNCERTAINTY ABOUT THE TRACK.

THE SYSTEM SHOULD BE IN A GLOBALLY FAVORABLE ENVIRONMENT FROM THE ATMOSPHERIC AND OCEANIC POINT OF VIEW, EXCEPT FOR THE VERY END OF THE TIME FRAME WHERE THE MID-TROPOSPHERE SHEAR COULD BE INCREASING. A GRADUAL INTENSIFICATION IS EXPECTED UNTIL FRIDAY AT A CLIMATOLOGICAL RATE.

IMPACTS ON INHABITED LANDS DURING THE NEXT 72 HOURS.

MADAGASCAR:
- IN ADDITION TO THE HEAVY RAINS THAT HAVE ALREADY FALLEN, THE RAINS WILL CONTINUE OVER THE NORTHWESTERLY AND CENTRAL WESTERN REGIONS WITH RAINFALL EXCEEDING 150 MM OVER THE PERIOD AND REACHING 200 MM LOCALLY OVER THE NORTHWEST. THE CENTRAL WEST REGION WILL BE MORE CONCERNED FROM WEDNESDAY WITH ACCUMULATIONS OVER THE PERIOD THAT MAY REACH 250 TO 300 MM LOCALLY.

- AN EPISODE OF STRONG WINDS (IN THE RANGE OF GALE FORCE WINDS) IS POSSIBLE ON PARTS OF THE COAST BETWEEN MAINTIRANO AND CAPE SAINT-VINCENT FROM THIS EVENING AND FOR THE DAY OF WEDNESDAY.

- DANGEROUS SEAS (WAVES HIGHER THAN 4M) COULD AFFECT THE AREAS BETWEEN MAINTIRANO AND CAPE SAINT-VINCENT FROM WEDNESDAY, EXTENDING TO CAPE SAINT-ANDRE IN THE NORTH ON THURSDAY.