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

0.A WARNING NUMBER: 46/7/20222023
1.A TROPICAL DISTURBANCE 7 (FREDDY)

2.A POSITION 2023/03/02 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 21.3 S / 37.2 E
(TWENTY ONE DECIMAL THREE DEGREES SOUTH AND
THIRTY SEVEN DECIMAL TWO DEGREES EAST)
MOVEMENT: EAST-NORTH-EAST 9 KT

3.A DVORAK ANALYSIS: 1.5/1.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 1000 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 15 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 900 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):
12H: 2023/03/03 00 UTC: 21.3 S / 37.8 E, VENT MAX= 020 KT, TROPICAL DISTURBANCE

24H: 2023/03/03 12 UTC: 21.7 S / 38.5 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 185 SE: 250 SW: 240 NW: 140

36H: 2023/03/04 00 UTC: 22.0 S / 39.2 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 205 SE: 280 SW: 240 NW: 150
34 KT NE: 130 SE: 150 SW: 140 NW: 85

48H: 2023/03/04 12 UTC: 22.5 S / 40.2 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 230 SE: 295 SW: 240 NW: 165
34 KT NE: 150 SE: 165 SW: 140 NW: 95

60H: 2023/03/05 00 UTC: 23.2 S / 41.6 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 250 SE: 315 SW: 240 NW: 185
34 KT NE: 165 SE: 175 SW: 140 NW: 95

72H: 2023/03/05 12 UTC: 23.7 S / 42.5 E, VENT MAX= 045 KT, MODERATE TROPICAL

STORM
28 KT NE: 280 SE: 335 SW: 240 NW: 195
34 KT NE: 175 SE: 195 SW: 140 NW: 100

2.B LONGER-RANGE OUTLOOK:
96H: 2023/03/06 12 UTC: 24.5 S / 43.1 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 325 SE: 380 SW: 240 NW: 230
34 KT NE: 215 SE: 215 SW: 140 NW: 100

120H: 2023/03/07 12 UTC: 23.7 S / 41.9 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 370 SE: 415 SW: 240 NW: 260
34 KT NE: 240 SE: 240 SW: 140 NW: 110

2.C ADDITIONAL INFORMATION:
FREDDY EMERGED ON THE CHANNEL LAST NIGHT, NEAR THE COAST OF MOZAMBIQUE. THE DEEP CONVECTION IS MAINLY PRESENT OVER THE SEA IN THE EASTERN SEMICIRCLE. DURING THE LAST SIX HOURS, THE EASTERN CENTER REMAINS COMPLETELY EXPOSED, FAR WEST OF THE CONVECTION.

UNDER THE CONTRADICTORY EFFECT OF THE TWO RIDGES IN THE MIDDLE TROPO, ONE OVER SOUTH AFRICA, THE OTHER OVER THE NORTH OF THE CHANNEL, THE SYSTEM IS SLOWLY MOVING, GLOBALLY IN AN EAST TO SOUTH-EAST DIRECTION. FROM FRIDAY AND DURING ALL THE WEEKEND, THE SYSTEM STRENGTHENS, AND TAKES A MORE SOUTHEASTERN TRAJECTORY UNDER THE EFFECT OF THE RIDGE OVER THE NORTH MADA BECOMING PREDOMINANT AT HIGHER LEVELS.
ON MONDAY, THE RIDGE OF HIGH PRESSURE IN THE SOUTH, SLIPS TO THE SOUTH, THEN TO THE SOUTHEAST OF THE SYSTEM, CAUSING THE SLOWING DOWN THEN THE UPWARD MOVEMENT OF THE SYSTEM TOWARDS THE NORTH. ON TUESDAY THE RIDGE STRENGTHENS IN THE WEST OVER AFRICA AND STEERS THE TRACK TO THE NORTHWEST.

WITH THE DISTANCE FROM THE LAND, THE ENVIRONMENT BECOMES MORE FAVORABLE TO THE INTENSIFICATION. FREDDY WILL BE ABLE TO TAKE ADVANTAGE OF A GOOD POLAR EVACUATION CHANNEL OVER WATERS WITH IMPROVING ENERGY POTENTIAL FROM THE WEEKEND. A WESTERLY CONSTRAINT IN THE UPPER AND MIDDLE TROPICS TEMPORARILY PRESENT ON SUNDAY COULD INDUCE A PAUSE IN THE INTENSIFICATION. BUT FROM MONDAY THE SYSTEM IS UNDER THE RIDGE, BUT THE INTENSITY COULD SUFFER FROM THE PROXIMITY OF THE MALAGASY COASTS. FROM TUESDAY ON, BACK TO THE CENTER OF THE CHANNEL, THE INTENSIFICATION COULD RESUME.

IMPACTS ON INHABITED LANDS OVER THE NEXT 72 HOURS:
- MADAGASCAR
* FROM SUNDAY, VERY STRONG SEA WITH WAVES OF 4 TO 6 M ON THE COASTS OF THE ATSIMO-ANDREFANA REGION.
* DURING THE NIGHT OF SATURDAY TO SUNDAY, THE GALE WILL REACH THE COASTS OF THE ATSIMO-ANDREFANA REGION.
* HEAVY RAINS (100 A 200 MM) WILL OCCUR MAINLY ON A WIDE COASTAL EDGE OVER THE REGION OF ATSIMO-ANDREFANA, AND THE SOUTH OF THE REGION OF

MENABE ON SUNDAY

THE INTENSITY OF THE SYSTEM DOES NOT JUSTIFY THE ISSUANCE OF REGULATED BULLETINS.