

WTIO30 FMEE 030640

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 47/7/20222023

1.A ZONE OF DISTURBED WEATHER 7 (FREDDY)

2.A POSITION 2023/03/03 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 22.1 S / 38.1 E

(TWENTY TWO DECIMAL ONE DEGREES SOUTH AND
THIRTY EIGHT DECIMAL ONE DEGREES EAST)

MOVEMENT: SOUTH 2 KT

3.A DVORAK ANALYSIS: 1.5/1.5/S 0.0/24 H

4.A CENTRAL PRESSURE: 1000 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: 0 SE: 350 SW: 195 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 1300 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/03/03 18 UTC: 22.1 S / 39.0 E, VENT MAX= 030 KT, ZONE OF DISTURBED
WEATHER

28 KT NE: 0 SE: 140 SW: 120 NW: 0

24H: 2023/03/04 06 UTC: 22.4 S / 39.9 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 130 SE: 250 SW: 230 NW: 85

34 KT NE: 100 SE: 100 SW: 0 NW: 55

36H: 2023/03/04 18 UTC: 22.5 S / 40.5 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 195 SE: 295 SW: 230 NW: 100

34 KT NE: 150 SE: 150 SW: 0 NW: 75

48H: 2023/03/05 06 UTC: 22.9 S / 41.7 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 150 SE: 270 SW: 285 NW: 120

34 KT NE: 110 SE: 100 SW: 110 NW: 55

60H: 2023/03/05 18 UTC: 23.4 S / 42.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 110 SE: 345 SW: 315 NW: 140

34 KT NE: 75 SE: 150 SW: 130 NW: 65
48 KT NE: 45 SE: 65 SW: 55 NW: 45

72H: 2023/03/06 06 UTC: 23.8 S / 42.8 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM
28 KT NE: 110 SE: 325 SW: 335 NW: 175
34 KT NE: 75 SE: 140 SW: 150 NW: 65
48 KT NE: 55 SE: 65 SW: 55 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2023/03/07 06 UTC: 22.8 S / 41.7 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 140 SE: 240 SW: 220 NW: 175
34 KT NE: 95 SE: 120 SW: 110 NW: 95
48 KT NE: 55 SE: 55 SW: 45 NW: 65

120H: 2023/03/08 06 UTC: 21.5 S / 41.4 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

28 KT NE: 185 SE: 250 SW: 240 NW: 150
34 KT NE: 110 SE: 140 SW: 110 NW: 95

2.C ADDITIONAL INFORMATION:

DURING THE LAST 24 HOURS, FREDDY'S CENTER HAS REMAINED PERSISTENTLY FAR FROM THE CONVECTIVE ACTIVITY CONCENTRATED IN THE SQUALL LINES IN THE EASTERN SEMICIRCLE. THE LATEST SATELLITE IMAGES AND THE RECENT 0616Z ASCAT PASS SHOW THAT THE INNER CORE REMAINS ELONGATED WITH THE STRONGEST WINDS DISTANT FROM THE CENTER. HOWEVER, THEY REACH THE NEAR GALE FORCE. FREDDY IS THEREFORE ANALYZED AT 06Z AS A 30KT ZONE OF DISTURBED WEATHER.

FREDDY IS EXPECTED TO MOVE EAST-SOUTHEASTWARD DRIVEN BY THE NEAR EQUATORIAL RIDGE TO THE NORTH TILL MONDAY. HOWEVER THIS MOTION WILL REMAIN SLOW DUE TO A SECOND WEAKER CONTRADICTORY STEERING FLOW DIRECTED BY THE SUBTROPICAL RIDGE TO THE SOUTH. FROM MONDAY ONWARDS, A NEW SUBTROPICAL RIDGE BUILDS TO THE SOUTHWEST OF FREDDY AND SHOULD SUPPORT A CHANGE OF DIRECTION TO THE NORTH OR NORTHWEST. THE CURRENT TRACK FORECAST FOLLOWS A CONSENSUS OF THE MAIN MODELS AVAILABLE. HOWEVER, IT REMAINS RATHER UNCERTAIN BEYOND MONDAY.

FREDDY IS CURRENTLY STRUGGLING TO INTENSIFY DUE TO ITS BROAD STRUCTURE FOLLOWING ITS LONG STAY OVER THE CONTINENT AND DUE TO A WEAK TO MODERATE WESTERLY SHEAR. THE LATTER SHOULD LAST THIS WEEKEND BEFORE WEAKENING ON MONDAY THUS LIMITING THE DEVELOPMENT AT FIRST. EARLY NEXT WEEK, TAKING ADVANTAGE OF THE WARM WATERS AND REDUCED SHEAR, FREDDY IS EXPECTED TO INTENSIFY INTO A SEVERE STORM. BY THE MIDDLE OF NEXT WEEK, THE SOUTHERLY SHEAR COULD STRENGTHEN AND LEAD TO AN EVENTUAL WEAKENING OF THE SYSTEM. MOREOVER, THE PROXIMITY WITH THE MALAGASY COASTS COULD ALSO LIMIT ITS DEVELOPMENT. IN THIS CONTEXT, THE INTENSITY FORECAST REMAINS PARTICULARLY UNCERTAIN.

IMPACTS ON INHABITED LANDS OVER THE NEXT 72 HOURS:

- MADAGASCAR

* FROM SATURDAY AND ESPECIALLY SUNDAY, VERY STRONG SEA WITH WAVES UP

TO 4 TO 6 M ON THE COASTS OF THE ATSIMO-ANDREFANA REGION AND ON THE SOUTH OF THE MENABE REGION.

* GRADUAL ARRIVAL OF GALES ON SUNDAY IN THE ATSIMO-ANDREFANA REGION.

* HEAVY RAINS ARE EXPECTED IN THE NEXT FEW DAYS OVER A LARGE WESTERN AND SOUTHERN HALF OF MADAGASCAR. MORE THAN 100MM IS EXPECTED IN THE NEXT 72H SOUTH OF A MAINTRANO MANAKARA LINE AND NEARLY 200 TO 300MM OVER THE ATSIMO-ANDREFANA REGION.