

WTIO30 FMEE 220721

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 32/7/20222023

1.A OVERLAND DEPRESSION 7 (FREDDY)

2.A POSITION 2023/02/22 AT 0600 UTC:

WITHIN 50 NM RADIUS OF POINT 21.7 S / 44.8 E

(TWENTY ONE DECIMAL SEVEN DEGREES SOUTH AND
FORTY FOUR DECIMAL EIGHT DEGREES EAST)

MOVEMENT: WEST 16 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: NIL

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: 465 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 500 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/02/22 18 UTC: 22.2 S / 42.1 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 185 SE: 315 SW: 185 NW: 0

34 KT NE: 75 SE: 95 SW: 0 NW: 0

24H: 2023/02/23 06 UTC: 22.2 S / 39.8 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 165 SE: 325 SW: 205 NW: 150

34 KT NE: 95 SE: 140 SW: 100 NW: 0

36H: 2023/02/23 18 UTC: 21.8 S / 37.3 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 325 SW: 185 NW: 140

34 KT NE: 95 SE: 140 SW: 130 NW: 85

48 KT NE: 0 SE: 45 SW: 55 NW: 45

48H: 2023/02/24 06 UTC: 21.7 S / 34.8 E, VENT MAX= 045 KT, OVERLAND DEPRESSION

28 KT NE: 220 SE: 315 SW: 165 NW: 0

34 KT NE: 95 SE: 130 SW: 95 NW: 0

60H: 2023/02/24 18 UTC: 22.1 S / 32.8 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

28 KT NE: 295 SE: 315 SW: 150 NW: 0

72H: 2023/02/25 06 UTC: 22.4 S / 31.5 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:

96H: 2023/02/26 06 UTC: 21.5 S / 31.1 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

120H: 2023/02/27 06 UTC: 20.3 S / 30.3 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.C ADDITIONAL INFORMATION:

FREDDY IS STILL TRACKING WEST-SOUTHWESTWARDS OVER INLAND MADAGASCAR. THE ASSOCIATED CONVECTION HAS CLEARLY WEAKENED DURING THE LAST HOURS AND HAS STARTED TO EXPOSE THE LOW LEVEL VORTEX WHICH IS LOCATED SOMEWHERE BETWEEN THE MORONDAVA AND TOLIARA REGIONS.

DRIVEN BY THE SUBTROPICAL RIDGE, FREDDY SHOULD CONTINUE TO TRACK WEST-SOUTHWESTWARD FAIRLY QUICKLY AND EXIT INTO THE MOZAMBIQUE CHANNEL AROUND 12UTC TODAY. ONCE IN THE CHANNEL, THE SUBTROPICAL RIDGE STRENGTHENS TOWARDS THE WEST AND WILL STEER THE SYSTEM WESTWARD THEN WESTNORTHWESTWARD UNTIL LANDFALL OVER THE MOZAMBIQUE COAST ON FRIDAY MORNING. MODEL DISPERSION HAS DECREASED, MAKING THE LANDFALL AREA PROBABLY BETWEEN INHAMBANE AND BEIRA. OVER THE WEEKEND, UNDER THE EFFECT OF A TROUGH PASSING TO THE SOUTH AND CONTRADICTIONARY STEERING FROM TWO RESIDUAL RIDGES TO THE EAST AND WEST, THE SYSTEM WILL ALMOST STALL OVERLAND BEFORE SLIGHTLY DRIFTING NORTHWARDS AS THE SUBTROPICAL RIDGE REBUILDS TO ITS SOUTH-WEST.

AFTER CLASSIC WEAKENING OVER THE MALAGASY LANDS, THE CENTRAL CORE OF FREDDY SHOULD GRADUALLY BUILD UP AGAIN BEFORE REINTENSIFICATION OVER THE MOZAMBIQUE CHANNEL IN QUITE CONDUCIVE ENVIRONMENTAL CONDITIONS : GOOD OCEANIC POTENTIAL, MOIST ATMOSPHERIC ENVIRONMENT AND LOW WIND SHEAR. IT COULD THUS QUICKLY REACH TROPICAL STORM STAGE AGAIN JUST AFTER EXITING INTO THE CHANNEL. MOST MODELS SUGGEST MORE OR LESS QUICK REINTENSIFICATION, WHICH CAN DEPEND ON HOW FAST THE SYSTEM'S INNER CORE REBUILDS AND ON ITS SIZE. THERE IS STILL SOME UNCERTAINTY ABOUT THE SYSTEM'S MAXIMUM INTENSITY BEFORE LANDFALL. THE PRESENT RSMC FORECAST FOLLOWS A MEDIAN OPTION WITH INTENSIFICATION UP TO SEVERE TROPICAL STORM STAGE BEFORE LANDFALL. THE SYSTEM SHOULD THEN WEAKEN SIGNIFICANTLY INLAND FROM FRIDAY ONWARDS.

IMPACTS ON INHABITED LANDS DURING THE NEXT 72 HOURS :

- MADAGASCAR :

* ADDITIONAL RAINFALL TOTALS NEAR 100MM OVER THE WEST-CENTRAL PART OF THE COUNTRY.

- MOZAMBIQUE : LANDFALL EXPECTED EARLY FRIDAY MORNING PROBABLY BETWEEN BEIRA AND INHAMBANE.

* LIKELY ARRIVAL OF GALES IN THE NIGHT FROM THURSDAY TO FRIDAY.

* VERY ROUGH TO HEAVY SEAS (UP TO 6-8M) NEAR THE LANDFALL AREA ON THURSDAY NIGHT AND FRIDAY MORNING.

* INTENSE RAINFALL RAPIDLY SPREADING INLAND WITH ACCUMULATIONS LOCALLY EXCEEDING 300 MM IN 72 HOURS.

