

WTIO30 FMEE 221352

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 33/7/20222023

1.A ZONE OF DISTURBED WEATHER 7 (FREDDY)

2.A POSITION 2023/02/22 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 22.2 S / 43.2 E

(TWENTY TWO DECIMAL TWO DEGREES SOUTH AND
FORTY THREE DECIMAL TWO DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 15 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 1004 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: 260 SE: 520 SW: 220 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: 2023/02/23 00 UTC: 22.3 S / 41.0 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 240 SE: 335 SW: 205 NW: 150

34 KT NE: 85 SE: 110 SW: 110 NW: 0

24H: 2023/02/23 12 UTC: 22.1 S / 38.5 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 230 SE: 335 SW: 220 NW: 230

34 KT NE: 100 SE: 120 SW: 120 NW: 110

36H: 2023/02/24 00 UTC: 21.6 S / 36.1 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 250 SE: 335 SW: 240 NW: 120

34 KT NE: 100 SE: 150 SW: 110 NW: 95

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

48H: 2023/02/24 12 UTC: 21.7 S / 33.9 E, VENT MAX= 035 KT, OVERLAND DEPRESSION

28 KT NE: 165 SE: 250 SW: 150 NW: 0

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

60H: 2023/02/25 00 UTC: 22.0 S / 32.0 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

72H: 2023/02/25 12 UTC: 21.9 S / 31.0 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:

96H: 2023/02/26 12 UTC: 20.4 S / 30.2 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

120H: 2023/02/27 12 UTC: 18.6 S / 27.6 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.C ADDITIONAL INFORMATION:

ACCORDING TO SATELLITE IMAGERY, FREDDY'S LOW-LEVEL CIRCULATION CENTER HAS MOVED OUT TO SEA INTO THE MOZAMBIQUE CHANNEL AROUND 12Z, JUST OFF MADAGASCAR'S SOUTH-WEST COAST, SOUTH OF CAPE ST-VINCENT. AT THAT TIME, CONVECTION WAS QUITE WEAK AND SCATTERED AWAY FROM AN ILL-DEFINED CENTER. HOWEVER, MORE RECENT IMAGERY SHOWS THAT CONVECTION IS QUICKLY GATHERING AND INTENSIFYING CLOSER THE CENTER. NO DVORAK ANALYSIS AT 12Z BECAUSE OF LACK OF DEEP CONVECTION. FREDDY IS THUS TEMPORARILY CLASSIFIED AS A ZONE OF DISTURBED WEATHER.

DRIVEN BY THE SUBTROPICAL RIDGE TO ITS SOUTH WHICH SHOULD THEN STRENGTHEN TO ITS SOUTHWEST, FREDDY SHOULD CONTINUE ITS WESTWARD AND THEN WEST-NORTHWESTWARD MOVEMENT UNTIL LANDFALL ON THE COAST OF MOZAMBIQUE ON FRIDAY MORNING. MODEL DISPERSION HAS DECREASED AND THE LANDFALL AREA SHOULD BE BETWEEN INHAMBANE AND BEIRA. FROM THIS WEEKEND, UNDER THE EFFECT OF A TROUGH TO THE SOUTH AND THE CONTRADICTIONARY EFFECT OF THE TWO REMNANT RIDGES EAST AND WEST, THE SYSTEM SHOULD SLOW DOWN AND THEN SLOWLY DRIFT NORTH-WESTWARD INLAND OF SOUTHERN AFRICA WHILE SLOWLY FILLING IN.

AFTER A CLASSIC WEAKENING OVER MALAGASY LANDS, FREDDY'S CENTRAL CORE IS REBUILDING AGAIN THIS WEDNESDAY EVENING, FOREBODING REINTENSIFICATION OVER THE MOZAMBIQUE CHANNEL IN RATHER CONDUCIVE ENVIRONMENTAL CONDITIONS : GOOD OCEANIC POTENTIAL, MOIST ENVIRONMENT AND RELATIVELY WEAK SHEAR. IT COULD THEREFORE QUICKLY REACH THE STAGE OF A TROPICAL STORM BY THURSDAY MORNING AND THEN POSSIBLY OF SEVERE TROPICAL STORM BEFORE LANDFALLING OVER MOZAMBIQUE. ACCORDING TO AVAILABLE MODELS, THE SPEED OF INTENSIFICATION SHOULD NEVERTHELESS BE LIMITED BY A SLIGHTLY TOO LARGE CIRCULATION, PREVENTING A TOO MARKED INTENSIFICATION. THE SYSTEM SHOULD THEN WEAKEN SIGNIFICANTLY INLAND FROM FRIDAY.

IMPACTS ON INHABITED LANDS DURING THE NEXT 72 HOURS :

- MADAGASCAR :

* GRADUAL IMPROVEMENT OF WEATHER CONDITIONS, RAIN BANDS ARE NOW MORE AND MORE MOVING OUT TO SEA OVER THE MOZAMBIQUE CHANNEL.

- 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 OVER SOUTHERN MOZAMBIQUE WITH ACCUMULATIONS LOCALLY EXCEEDING 300 MM IN 72 HOURS.

- NORTHEASTERN PART OF SOUTH AFRICA AND ZIMBABWE : HEAVY RAINFALL AND POTENTIAL FLOODING FROM SATURDAY. DETAILS STILL UNCERTAIN.