

WTIO30 FMEE 121827

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 85/7/20222023

1.A OVERLAND DEPRESSION 7 (FREDDY)

2.A POSITION 2023/03/12 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 17.1 S / 35.8 E

(SEVENTEEN DECIMAL ONE DEGREES SOUTH AND  
THIRTY FIVE DECIMAL EIGHT DEGREES EAST)

MOVEMENT: WEST 5 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 1001 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: 155 SW: 0 NW: 0

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): 1008 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/03/13 06 UTC: 16.7 S / 35.0 E, VENT MAX= 030 KT, OVERLAND DEPRESSION  
28 KT NE: 0 SE: 155 SW: 0 NW: 0

24H: 2023/03/13 18 UTC: 16.4 S / 34.8 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

36H: 2023/03/14 06 UTC: 16.4 S / 35.2 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

48H: 2023/03/14 18 UTC: 16.8 S / 36.4 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

60H: 2023/03/15 06 UTC: 17.6 S / 37.8 E, VENT MAX= 025 KT, ZONE OF DISTURBED  
WEATHER

72H: 2023/03/15 18 UTC: 18.3 S / 39.0 E, VENT MAX= 025 KT, ZONE OF DISTURBED  
WEATHER

2.B LONGER-RANGE OUTLOOK:

96H: 2023/03/16 18 UTC: 20.4 S / 41.7 E, VENT MAX= 025 KT, ZONE OF DISTURBED  
WEATHER

2.C ADDITIONAL INFORMATION:  
T=CI=NIL (OVERLAND)

LITTLE EVOLUTION ON THE CLOUD PATTERN EXCEPT A VERY SLIGHT IMPROVEMENT OF THE CONVECTION IN THE EASTERN SEMICIRCLE OF THE SYSTEM AT THE TIME OF THE RUN. THE 1429Z AND 1409Z SSMIS SWATHS SHOW WELL THIS DEEP CONVECTION WELL ESTABLISHED IN THESE SECTORS, SUGGESTING THUS THE PURSUIT OF STRONG RAINY EPISODES IN PROGRESS OVER MOZAMBIQUE. HOWEVER, WITH THE SINKING OF FREDDY OVERLAND, AND THE FRICTION DUE TO THE RELIEF SINCE THE LAST 6 HOURS, THE INTENSITY ESTIMATE HAS BEEN SLIGHTLY LOWERED TO 30KT.

LITTLE CHANGE IN TERMS OF TRACK FORECAST, THE SUBTROPICAL RIDGE PRESENT IN THE SOUTHWEST OF THE SYSTEM CONTINUES TO STEER FREDDY A LITTLE MORE WEST-NORTHWESTWARDS UNTIL MONDAY DURING THE DAY BEFORE A SLOWDOWN OF THE MOVEMENT UNDER THE CONTRADICTORY EFFECT OF THE NEAR EQUATORIAL RIDGE FURTHER NORTH. FROM TUESDAY ONWARDS, A NORTH-WESTERLY FLOW IN THE LOW TROPOSPHERE SHOULD REDIRECT THE RESIDUAL MINIMUM SOUTH-EASTWARDS WITH A POSSIBLE EXIT AT SEA BY THE MIDDLE OF NEXT WEEK. THE RSMC FORECAST IS BASED ON A COMPROMISE BETWEEN THE BEST GUIDANCE ON THE CURRENT SITUATION, EXCLUDING GUIDANCE THAT IS TOO FAST OR REMAINS TOO MUCH OVER THE SEA.

FREDDY WILL REMAIN IN A RELATIVELY WEAK STATE DURING ITS JOURNEY ON LAND. IF THE HYPOTHESIS OF AN EXIT AT SEA IS CONFIRMED, THE ATMOSPHERIC CONDITIONS DO NOT SEEM TO BE CONDUCIVE TO A RE-INTENSIFICATION ACCORDING TO THE EVOLUTION CONSIDERED. INDEED, FROM WEDNESDAY, THE VERTICAL WIND SHEAR (DEEP AND MEDIUM) FROM WEST TO NORTH-WEST INCREASES SIGNIFICANTLY, ACCOMPANIED BY INTRUSION OF DRY AIR IN THE MIDDLE TROPOSPHERE. THE OCEANIC HEAT POTENTIAL (OHC) SHOULD REMAIN INSUFFICIENT FOLLOWING THE COOLING OF SURFACE WATERS DURING THE RECENT PASSAGE OF FREDDY (ALTHOUGH RESIDUAL POCKETS OF OHC ARE STILL PRESENT IN THE CHANNEL), NO SIGNIFICANT RE-INTENSIFICATION IS SUGGESTED FOR THE MOMENT AND IT IS THE SCENARIO OF AN EMERGENCE AT SEA OF A DISTURBED ZONE NOT ACCOMPANIED BY STRONG WINDS THAT IS FAVORED.

IMPACTS ON HABITAT LANDS OVER THE NEXT 72 HOURS:

THE CURRENT AND FORECAST SLOW MOVEMENT OF FREDDY REMAINS AN AGGRAVATING FACTOR ON THE EXPECTED IMPACTS - MOZAMBIQUE :

\* PRESENCE OF GUSTY WINDS IN THE EVENING AND TOMORROW SUNDAY IN THE CLOSE PERIPHERY OF THE SYSTEM

\* PERSISTENCE OF HEAVY RAINS OVER THE PROVINCE OF ZAMBEZIE AND THE NORTH OF SOFALA, WHICH MAY EXTEND TO THE NORTH OF THE PROVINCE OF MANICA. 200 TO 300 MM ARE EXPECTED IN THE NEXT 48 HOURS OVER THESE AREAS.

- SOUTHERN MALAWI:

\* HEAVY RAINFALL EPISODE WITH CUMULATIVE RAINFALL UP TO 300 TO 400 MM OVER 48H AND LOCALLY MORE OVER THE RELIEF.