

WTIO30 FMEE 011843

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 27/2/20212022

1.A INTENSE TROPICAL CYCLONE 2 (BATSIRAI)

2.A POSITION 2022/02/01 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 17.7 S / 59.0 E

(SEVENTEEN DECIMAL SEVEN DEGREES SOUTH AND  
FIFTY NINE DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 5.5/5.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 945 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 90 KT

RADIUS OF MAXIMUM WINDS (RMW): 33 KM

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

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

34 KT NE: 140 SE: 150 SW: 165 NW: 140

48 KT NE: 75 SE: 85 SW: 80 NW: 75

64 KT NE: 55 SE: 55 SW: 55 NW: 55

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/02/02 06 UTC: 18.5 S / 57.4 E, VENT MAX= 095 KT, INTENSE TROPICAL  
CYCLONE

28 KT NE: 305 SE: 380 SW: 360 NW: 230

34 KT NE: 175 SE: 185 SW: 205 NW: 150

48 KT NE: 85 SE: 85 SW: 95 NW: 65

64 KT NE: 65 SE: 55 SW: 55 NW: 55

24H: 2022/02/02 18 UTC: 19.0 S / 56.0 E, VENT MAX= 100 KT, INTENSE TROPICAL  
CYCLONE

28 KT NE: 270 SE: 380 SW: 345 NW: 285

34 KT NE: 165 SE: 195 SW: 205 NW: 175

48 KT NE: 95 SE: 95 SW: 95 NW: 75

64 KT NE: 65 SE: 65 SW: 55 NW: 65

36H: 2022/02/03 06 UTC: 19.4 S / 54.7 E, VENT MAX= 100 KT, INTENSE TROPICAL  
CYCLONE

28 KT NE: 295 SE: 335 SW: 390 NW: 345

34 KT NE: 175 SE: 175 SW: 195 NW: 220

48 KT NE: 100 SE: 95 SW: 95 NW: 85  
64 KT NE: 65 SE: 65 SW: 65 NW: 75

48H: 2022/02/03 18 UTC: 19.6 S / 53.2 E, VENT MAX= 085 KT, TROPICAL CYCLONE  
28 KT NE: 305 SE: 425 SW: 425 NW: 285  
34 KT NE: 195 SE: 230 SW: 260 NW: 175  
48 KT NE: 100 SE: 110 SW: 110 NW: 95  
64 KT NE: 75 SE: 75 SW: 75 NW: 65

60H: 2022/02/04 06 UTC: 19.6 S / 51.8 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE  
28 KT NE: 295 SE: 465 SW: 390 NW: 250  
34 KT NE: 195 SE: 260 SW: 260 NW: 155  
48 KT NE: 100 SE: 110 SW: 110 NW: 95  
64 KT NE: 75 SE: 75 SW: 75 NW: 75

72H: 2022/02/04 18 UTC: 19.8 S / 50.8 E, VENT MAX= 100 KT, INTENSE TROPICAL CYCLONE  
28 KT NE: 285 SE: 555 SW: 380 NW: 205  
34 KT NE: 185 SE: 325 SW: 280 NW: 130  
48 KT NE: 95 SE: 110 SW: 110 NW: 85  
64 KT NE: 75 SE: 85 SW: 85 NW: 75

#### 2.B LONGER-RANGE OUTLOOK:

96H: 2022/02/05 18 UTC: 20.3 S / 47.6 E, VENT MAX= 045 KT, OVERLAND DEPRESSION  
28 KT NE: 185 SE: 470 SW: 195 NW: 0  
34 KT NE: 140 SE: 285 SW: 140 NW: 0

120H: 2022/02/06 18 UTC: 21.7 S / 42.0 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM  
28 KT NE: 220 SE: 400 SW: 445 NW: 215  
34 KT NE: 165 SE: 270 SW: 250 NW: 130

#### 2.C ADDITIONAL INFORMATION:

T=CI=5.5

DURING THE LAST 6 HOURS, THE CLOUD PATTERN IN THE EYE HAS IMPROVED. WITH VERY COLD TOPS AND CORE, A 6 HOUR AVERAGE DVORAK ANALYSIS OF 5.5 CAN BE DONE AND ALLOWS TO ESTIMATE WINDS IN THE 90KT RANGE. BATSIRAI PASSES THE STAGE OF INTENSE TROPICAL CYCLONE AT 18UTC. THE ASCAT SWATH OF 1729UTC ALLOWS A GOOD REPRESENTATION OF THE WIND EXTENSIONS THAT THE OBSERVATIONS OF SAINT BRANDON VALIDATE.

NO CHANGE ON THE STEERING FLOWS OF BATSIRAI : IT REMAINS UNDER THE INFLUENCE OF TWO CONTRADICTORY STEERING FLOWS COMING FROM THE SUBTROPICAL RIDGE TO THE SOUTHWEST AND FROM A NEAR EQUATORIAL RIDGE OF MIDDLE TROPOSPHERE TO THE NORTHEAST. CURRENTLY UNDER THE INFLUENCE OF THE SUBTROPICAL RIDGE, BATSIRAI IS MOVING ON A GENERAL WEST-SOUTHWESTWARD TRACK. ON WEDNESDAY AND THURSDAY, IT WILL CIRCULATE CLOSE TO THE NORTH OF MAURITIUS AND REUNION ISLAND WHILE A WEAK RIDGE OF MID-TROPICAL HIGH PRESSURE TRANSITS TEMPORARILY TO THE SOUTH. FROM THURSDAY, THE SUBTROPICAL RIDGE WILL STRENGTHEN FROM THE

SOUTHWEST ALLOWING A RESUMPTION OF A GENERAL WESTWARD TRAJECTORY TOWARDS THE EAST COAST OF MADAGASCAR BUT WITH A SLIGHTLY DELAYED TIMING COMPARED TO THE PREVIOUS RSMC FORECAST.

IN THE SHORT TERM, BATSIRAI WILL BE IN A LESS SHEARED ENVIRONMENT ALLOWING IT TO INTENSIFY WHILE PASSING NORTH OF MAURITIUS AND REUNION ISLAND. THEREAFTER, THE SHEAR SHOULD SLIGHTLY INCREASE AND UNDER THE INFLUENCE OF THE CYCLES OF REPLACEMENT OF THE WALL OF THE EYE, THE INTENSITY OF BATSIRAI COULD VARY LETTING IT OSCILLATE BETWEEN THE THRESHOLD OF TROPICAL CYCLONE AND INTENSE TROPICAL CYCLONE BEFORE ITS LANDING ON MADAGASCAR AT THE TIME OF SATURDAY. THE LOW PREDICTABILITY OF THESE MECHANISMS MAINTAINS AN UNCERTAINTY ON THE INTENSITY FORECAST. A LARGER AND LARGER WIND FIELD STRUCTURE IS EXPECTED IN THE NEXT FEW DAYS, SIGNIFICANTLY ENLARGING THE AREA OF INFLUENCE OF THE SYSTEM (SIGNIFICANT IMPACTS POSSIBLE AT A DISTANCE).

IMPACTS ON INHABITED LANDS :

- MAURITIUS AND REUNION ISLAND : A DEGRADATION IS PROGRESSIVELY SET UP ON MAURITIUS THEN ON REUNION ISLAND DURING THE NIGHT. IF THE EYE OF THE CYCLONE SHOULD PASS MORE IN THE NORTH OF THE ISLANDS, SIGNIFICANT IMPACTS IN PERIPHERY ARE TO BE FEARED. THESE BAD WEATHER CAN EXTEND UNTIL FRIDAY MORNING: THE PROBABILITIES ARE NOW STRONG THAT THE ISLANDS ARE CONCERNED BY GALE FORCE WINDS (GUSTS AT 100-120 KM/H ON THE COAST BEING ABLE TO EXCEED THE 150 KM/H ON THE HIGHS IN REUNION). THE CUMULATED RAINFALL CAN LOCALLY EXCEED 100 MM IN 24H ON MAURITIUS AND THE COASTAL AREAS OF REUNION. CUMULATED RAINFALL IS EXPECTED TO BE MUCH MORE IMPORTANT ON THE RELIEF OF REUNION (+500/600 MM IN 24H POSSIBLE). A VERY DEGRADED SEA STATE WITH WAVES OF MORE THAN 5M IN AVERAGE HEIGHT AND AN ABNORMAL RISE OF SOME TENS OF CENTIMETERS OF THE SEA LEVEL, ARE EXPECTED ON THE EXPOSED COASTS.

THE UNCERTAINTY THAT REMAINS ON THE PREDICTION OF THE TRAJECTORY AND INTENSITY OF SUCH A POWERFUL SYSTEM NEAR INHABITED LANDS REQUIRES THE UTMOST CAUTION. THE POPULATION IS INVITED TO FOLLOW THE EVOLUTION OF THE SITUATION.

- MADAGASCAR : THE CYCLONE IS EXPECTED TO ARRIVE DURING THE WEEKEND ON THE EAST COAST, POTENTIALLY STILL AT A STAGE OF TROPICAL CYCLONE OR INTENSE TROPICAL CYCLONE. WITH THE BEGINNING OF THE RAIN AND WIND IMPACTS POSSIBLE FROM FRIDAY, THE INHABITANTS OF THESE REGIONS ARE ALSO INVITED TO FOLLOW THE PROGRESSION OF THIS SYSTEM.