

WTIO30 FMEE 061842

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 47/2/20212022

1.A MODERATE TROPICAL STORM 2 (BATSIRAI)

2.A POSITION 2022/02/06 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 23.2 S / 43.3 E

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

MOVEMENT: WEST-SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 988 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 445 SE: 555 SW: 555 NW: 295

34 KT NE: 0 SE: 370 SW: 260 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 1000 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/02/07 06 UTC: 23.9 S / 41.6 E, VENT MAX= 035 KT, MODERATE TROPICAL  
STORM

28 KT NE: 230 SE: 465 SW: 325 NW: 360

34 KT NE: 0 SE: 285 SW: 240 NW: 215

24H: 2022/02/07 18 UTC: 25.1 S / 41.1 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

28 KT NE: 360 SE: 500 SW: 390 NW: 390

34 KT NE: 130 SE: 315 SW: 230 NW: 230

36H: 2022/02/08 06 UTC: 26.4 S / 41.0 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

28 KT NE: 435 SE: 545 SW: 445 NW: 415

34 KT NE: 175 SE: 350 SW: 270 NW: 250

48H: 2022/02/08 18 UTC: 28.1 S / 41.4 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 500 SE: 545 SW: 360 NW: 390

34 KT NE: 205 SE: 350 SW: 215 NW: 220

60H: 2022/02/09 06 UTC: 30.8 S / 42.0 E, VENT MAX= 040 KT, POST-TROPICAL

## DEPRESSION

28 KT NE: 520 SE: 535 SW: 380 NW: 350

34 KT NE: 215 SE: 350 SW: 240 NW: 205

72H: 2022/02/09 18 UTC: 33.3 S / 42.8 E, VENT MAX= 035 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 480 SE: 520 SW: 400 NW: 315

34 KT NE: 175 SE: 350 SW: 285 NW: 175

## 2.B LONGER-RANGE OUTLOOK:

96H: 2022/02/10 18 UTC: 36.8 S / 48.2 E, VENT MAX= 030 KT, POST-TROPICAL  
DEPRESSION

28 KT NE: 415 SE: 205 SW: 185 NW: 260

## 2.C ADDITIONAL INFORMATION:

T=CI=NIL

BATSIRAI EMERGED IN THE SEA NEAR THE CITY OF TULEAR AROUND 16UTC, IF WE REFER TO THE VISIBLE AND INFRARED IMAGES. THESE DATA ARE VALIDATED BY THE MICROWAVE PASSAGE OF 1610UTC. DURING THE LAST 6 HOURS, THE CONVECTIVE ACTIVITY HAS REMAINED MODERATE AND MAINLY PRESENT ON LAND. THIS DOES NOT ALLOW TO RESUME THE DVORAK ANALYSIS. THE ASCAT SWATH OF 1811UTC ALLOWS TO ESTIMATE WINDS OF 30 TO 35KT IN THE SOUTHERN SEMICIRCLE, ALONG THE COASTS. WE CLASSIFY BATSIRAI AS A MODERATE TROPICAL STORM WHEN IT GOES OUT TO SEA, WITH A RELATIVELY LARGE CIRCULATION.

NO CHANGE IN TERMS OF TRACK : BACK AT SEA, BATSIRAI SHOULD START A PROGRESSIVE TURN SOUTHWARDS DUE TO THE WEAKNESS OF THE SUBTROPICAL RIDGE LOCATED TO THE SOUTH. FOLLOWING THE ARRIVAL OF A MID-LATITUDE TROUGH FROM THE WEST, BATSIRAI WILL CONTINUE TO PLUNGE TOWARDS THE SOUTHERN LATITUDES EVEN MORE SHARPLY FROM TUESDAY. THEN CAPTURED BY THE WESTERLY FLOW AND FOLLOWING THE TROUGH, BATSIRAI WILL END ITS LIFE IN AN EAST-SOUTHEAST TRACK TOWARDS THE MID-LATITUDES.

BACK ON THE SEA, IN THE MOZAMBIQUE CHANNEL, WHERE THE OCEANIC POTENTIAL IS STILL SUFFICIENT DESPITE THE RATHER SOUTHERN LATITUDES, BATSIRAI PRESENTS A RATHER LARGE CIRCULATION WITH AN INTENSITY AT THE THRESHOLD OF A MODERATE TROPICAL STORM. ALTHOUGH BENEFITING FROM GOOD ENVIRONMENTAL CONDITIONS AT FIRST, THE SYSTEM HAS DIFFICULTY TO TIGHTEN ITS CIRCULATION AND THEREFORE STRUGGLES TO INTENSIFY AGAIN. THIS LARGE CIRCULATION COMBINED WITH THE ARRIVAL OF UNFAVORABLE ENVIRONMENTAL CONDITIONS (FIRST DRY AIR PENETRATING FROM THE NORTH AND THEN WIND SHEAR) DURING ITS PLUNGE TOWARDS THE MID-LATITUDES WILL LIMIT ITS INTENSITY TO THE MODERATE TROPICAL STORM THRESHOLD. THEN, MOVING SOUTHERN, BATSIRAI SHOULD START A POST-TROPICAL TRANSITION IN THE MIDDLE OF THE WEEK BY INTERACTION WITH A MID-LATITUDE TROUGH.

EXPECTED IMPACTS ON MADAGASCAR AND THE SOUTH OF THE CHANNEL:

- DEGRADED CONDITIONS WILL PERSIST OVER A LARGE SOUTHERN HALF OF MADAGASCAR.

- AVERAGE WINDS OF ABOUT 35KT ARE MAINTAINED ALONG THE SOUTH AND SOUTHWEST COAST (BETWEEN CAPE SAINTE-MARIE AND CAPE SAINT-VINCENT). THESE WINDS ARE ACCOMPANIED BY GUSTS CLOSE TO 100 KM/H.
- THE SOUTHEAST SWELL ON THE EAST COAST OF MADAGASCAR CONTINUES TO WEAKEN. WITH THE DISPLACEMENT OF BATSIRAI, THE SEA IS RISING ON SOUTHWESTERN MADAGASCAR, WITH A COMBINED SWELL AND WIND SEA GIVING A TOTAL SEA OF ABOUT 5 METERS SOUTH OF CAPE SAINT-VINCENT, FOR SUNDAY NIGHT. THIS ONE WEAKENS QUICKLY.