

WTIO30 FMEE 250035

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 12/12/20212022

1.A SEVERE TROPICAL STORM 12 (JASMINE)

2.A POSITION 2022/04/25 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 19.6 S / 40.0 E

(NINETEEN DECIMAL SIX DEGREES SOUTH AND

FORTY DECIMAL ZERO DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 7 KT

3.A DVORAK ANALYSIS: 3.5/3.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 991 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW): 28 KM

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

28 KT NE: 165 SE: 205 SW: 150 NW: 110

34 KT NE: 95 SE: 110 SW: 100 NW: 75

48 KT NE: 35 SE: 35 SW: 40 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/04/25 12 UTC: 21.2 S / 40.4 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 185 SE: 185 SW: 150 NW: 130

34 KT NE: 100 SE: 110 SW: 85 NW: 85

48 KT NE: 45 SE: 45 SW: 35 NW: 35

24H: 2022/04/26 00 UTC: 22.4 S / 41.0 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 185 SE: 185 SW: 165 NW: 150

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

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

64 KT NE: 35 SE: 35 SW: 35 NW: 30

36H: 2022/04/26 12 UTC: 22.7 S / 42.1 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 165 SE: 185 SW: 165 NW: 130

34 KT NE: 95 SE: 100 SW: 95 NW: 85

48 KT NE: 45 SE: 45 SW: 35 NW: 35

48H: 2022/04/27 00 UTC: 22.4 S / 43.2 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 130 SE: 130 SW: 130 NW: 130

34 KT NE: 65 SE: 75 SW: 75 NW: 65

60H: 2022/04/27 12 UTC: 21.8 S / 44.2 E, VENT MAX= 035 KT, OVERLAND DEPRESSION
28 KT NE: 0 SE: 110 SW: 150 NW: 130
34 KT NE: 0 SE: 0 SW: 55 NW: 55

72H: 2022/04/28 00 UTC: 20.9 S / 44.6 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
28 KT NE: 0 SE: 0 SW: 130 NW: 130

2.B LONGER-RANGE OUTLOOK:

96H: 2022/04/29 00 UTC: 19.6 S / 44.9 E, VENT MAX= 020 KT, DISSIPATING

2.C ADDITIONAL INFORMATION:

T=CI=3.5

DURING THE LAST 6 HOURS, JASMINE'S CLOUD PATTERN HAS GRADUALLY EVOLVED FROM A CDO TO A CURVED BAND PATTERN WRAPPING ALMOST A FULL TURN, DISPLAYING STILL VERY ACTIVE CONVECTION. THE 2307Z AMSR2 PASS SHOWS A FORMING INNER CORE STILL OPEN ON ITS NORTHWESTERN SIDE AND VERTICALLY TILTED DUE TO WIND SHEAR. SUBJECTIVE DVORAK ANALYSIS AND ADT ESTIMATES REMAIN CLOSE TO 3.5. IN THE ABSENCE OF OTHER DATA, THE INTENSITY IS KEPT AT 50KT.

JASMINE'S MOVEMENT IS ACCELERATING SOUTH-SOUTH-EASTWARD THIS MONDAY, ALLOWING IT TO PARTIALLY ESCAPE FROM THE SHEARED CONSTRAINT. THE STEERING FLOW IS CURRENTLY LOCATED IN THE MID-LEVELS, CHanneled BY A RIDGE EAST OF MADAGASCAR AND A TROUGH OVER SOUTHERN AFRICA. FROM TUESDAY, THE TRACK BECOMES VERY UNCERTAIN, DEPENDING ON THE INTENSITY OF THE SYSTEM AT THAT MOMENT. A MORE OR LESS SHARP TURN TOWARDS THE EAST OR NORTHEAST SHOULD OCCUR, BUT MODELS ARE STRONGLY DISPERSED. SOME OPTIONS MAINTAIN A STEERING FLOW WITH A STRONG WESTERLY COMPONENT, LINKED TO THE MID-LEVEL FLOW ASSOCIATED WITH THE BY-PASSING TROUGH SOUTH OF THE MOZAMBIQUE CHANNEL, THUS DIRECTING JASMINE TOWARDS THE SOUTH-WEST OF MADAGASCAR, WHILE OTHER SCENARIOS FAVOR A STEERING FLOW SHIFTING BACK DOWN TO THE LOW LEVELS DUE TO A MORE PRONOUNCED WEAKENING TREND, WHICH WOULD MAKE THE SYSTEM TURN MORE FRANKLY NORTHWARDS ALONG THE WEST COAST OF MADAGASCAR UNDER THE INFLUENCE OF HIGH PRESSURES WHICH RE-BUILDING OVER SOUTHERN AFRICA. THE RSMC'S TRACK MAKES A COMPROMISE BETWEEN THESE VARIOUS OPTIONS AND HAS AN ABOVE-AVERAGE UNCERTAINTY. LANDFALL ON THE SOUTH-WEST OF MADAGASCAR SEEMS POSSIBLE FROM TUESDAY AFTERNOON OR WEDNESDAY, BUT THE TIMING AND LOCATION STILL REMAIN LARGELY TO BE SPECIFIED.

IN TERMS OF INTENSITY, JASMINE BENEFITS FROM FAIRLY CONDUCTIVE ENVIRONMENTAL CONDITIONS UNTIL TUESDAY MORNING (GOOD UPPER LEVEL DIVERGENCE, HIGH OCEANIC HEAT CONTENT), DESPITE THE PERSISTENCE OF A MODERATE SHEAR CONSTRAINT. FROM TUESDAY, THE INCREASING WESTERLY SHEAR, LINKED TO THE PASSAGE OF A TROUGH TO THE SOUTH, COMBINED WITH DRY AIR INTRUSION IN THE MID-LEVELS, SHOULD WEAKEN THE SYSTEM MORE OR LESS RAPIDLY BEFORE ITS APPROACH OF MADAGASCAR (HIGH UNCERTAINTY

ABOUT THIS). IN CASE OF LANDFALL ON MADAGASCAR, A CLASSIC WEAKENING IS ALSO TO BE EXPECTED OVER LAND. CONSEQUENTLY, IT IS LIKELY THAT THE SYSTEM WILL HAVE DISSIPATED BY THURSDAY OR FRIDAY.

IMPACTS ON INHABITED LANDS:

- SOUTH MOZAMBIQUE CHANNEL ISLANDS (BASSAS DA INDIA, EUROPA) : DISTURBED CONDITIONS EXPECTED BETWEEN MONDAY EVENING AND FOLLOWING NIGHT WITH GUSTS NEARING 100 KM/H, RAINFALL ACCUMULATIONS CLOSE TO 100 MM, 4-TO-5-METER WAVES.
- MADAGASCAR : LANDFALL IS POSSIBLE (BUT NOT GUARANTEED) FROM TUESDAY AFTERNOON OR WEDNESDAY BETWEEN THE REGIONS OF TULEAR AND MORONDAVA, BUT WITH HIGH UNCERTAINTY ON TIMING, LOCATION AND INTENSITY. THE NORTH OF THE ATSIMO-ANDREFANA REGION SEEMS THE MOST EXPOSED (HEAVY RAINS, WIND GUSTS).