

WTIO30 FMEE 241836

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 11/12/20212022

1.A SEVERE TROPICAL STORM 12 (JASMINE)

2.A POSITION 2022/04/24 AT 1800 UTC:

WITHIN 30 NM RADIUS OF POINT 18.8 S / 39.6 E

(EIGHTEEN DECIMAL EIGHT DEGREES SOUTH AND  
THIRTY NINE DECIMAL SIX DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 5 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 992 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 33 KM

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

28 KT NE: 165 SE: 165 SW: 130 NW: 95

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

48 KT NE: 0 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 06 UTC: 20.0 S / 39.8 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 165 SE: 155 SW: 120 NW: 120

34 KT NE: 100 SE: 110 SW: 95 NW: 85

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

24H: 2022/04/25 18 UTC: 20.9 S / 40.2 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 175 SE: 140 SW: 120 NW: 120

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

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

36H: 2022/04/26 06 UTC: 21.3 S / 40.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 150 SW: 110 NW: 110

34 KT NE: 85 SE: 110 SW: 85 NW: 75

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

48H: 2022/04/26 18 UTC: 21.1 S / 41.7 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

28 KT NE: 95 SE: 100 SW: 120 NW: 95

34 KT NE: 45 SE: 55 SW: 75 NW: 55

60H: 2022/04/27 06 UTC: 20.5 S / 42.6 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 95 SE: 110 SW: 120 NW: 110

34 KT NE: 0 SE: 0 SW: 65 NW: 55

72H: 2022/04/27 18 UTC: 19.5 S / 43.4 E, VENT MAX= 030 KT, REMNANT LOW

28 KT NE: 0 SE: 85 SW: 110 NW: 100

## 2.B LONGER-RANGE OUTLOOK:

96H: 2022/04/28 18 UTC: 16.4 S / 43.9 E, VENT MAX= 025 KT, FILLING UP

120H: 2022/04/29 18 UTC: 15.0 S / 43.8 E, VENT MAX= 020 KT, DISSIPATING

## 2.C ADDITIONAL INFORMATION:

T=CI=3.5

DURING THE PAST 6 HOURS, CONVECTION HAS SIGNIFICANTLY INTENSIFIED WITH VERY COLD CLOUD TOPS IN INFRARED IMAGERY (-80/-85C) AND AN EXPANSION OF THE CDO. THE LOW LEVEL CENTER IS NOW ENTIRELY BENEATH CDO. THE 1538Z SSMIS-F17 MICROWAVE IMAGE SHOWS STRONG CONVECTION ON THE SOUTH AND SOUTHEASTERN SIDES OF THE STORM, WHICH HAS ALSO GOT CLOSER TO THE CENTER OF THE SYSTEM, BUT WITH STILL A QUITE ASYMMETRICAL STRUCTURE, ILLUSTRATING THE REMNANT EFFECTS OF WEST TO NORTH-WESTERLY WIND SHEAR (ESTIMATED BETWEEN 15 AND 20KT ACCORDING TO CIMSS). IN CONSISTENCE WITH THE IMPROVED CLOUD PATTERN, SUBJECTIVE AND OBJECTIVE INTENSITY ESTIMATES ARE UP, WITH DVORAK ANALYSIS REACHING 3.5, ALLOWING TO ESTIMATE THAT JASMINE HAS REACHED THE MINIMUM LEVEL OF SEVERE TROPICAL STORM STAGE WITH MAXIMUM WINDS ESTIMATED AT 50KT.

JASMINE FOLLOWS A SOUTH TO SOUTHEASTWARDS TRACK UNTIL MONDAY, GUIDED BY A MID-TROPOSPHERIC NORTHWESTERLY STEERING FLOW, CHANNELED BETWEEN THE 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. CERTAIN OPTIONS MAINTAIN A STEERING FLOW WITH A STRONG WESTERLY COMPONENT, LINKED TO THE MID-TROPOSPHERIC FLOW ASSOCIATED WITH THE BY-PASSING TROUGH TO THE SOUTH OF THE MOZAMBIQUE CHANNEL, THUS DIRECTING JASMINE TOWARDS MADAGASCAR, WHILE OTHER SCENARIOS FAVOR A STEERING FLOW SHIFTING BACK TO THE LOW LEVELS DUE TO WEAKENING OF THE SYSTEM, WHICH WOULD MAKE IT TURN NORTHWARDS OFF THE WEST COAST OF MADAGASCAR. THE EUROPEAN ENSEMBLE, WHICH UNTIL NOW FAVORED A SHARP NORTHWARD TURN, IS NOW TRENDING TOWARDS A CLOSER TO MADAGASCAR'S TRACK, BUT WITH A VERY STRONG DISPERSION BETWEEN RUNS AND BETWEEN MODELS (GEFS FAVORS THE OPTION OF CROSSING MADAGASCAR FROM WEST TO EAST). THE RSMC TRACK FORECAST FROM TUESDAY OR WEDNESDAY IS THEREFORE PARTICULARLY UNCERTAIN AND WILL NEED TO BE CLARIFIED IN FUTURE FORECASTS. IN PARTICULAR, LANDFALL ON MADAGASCAR FROM WEDNESDAY CANNOT BE RULED OUT.

IN TERMS OF INTENSITY, JASMINE BENEFITS FROM GOOD ENVIRONMENTAL CONDITIONS UNTIL MONDAY OR EVEN TUESDAY MORNING, 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 BEFORE GRADUAL DISSIPATION EXPECTED BY THE END OF THE WEEK. IN CASE OF LANDFALL OVER MADAGASCAR (FROM WEDNESDAY), THE INTENSITY OF JASMINE SHOULD BE WEAKENING, THEREFORE WITH IMPACTS WHICH SHOULD REMAIN RELATIVELY MODEST.

IMPACTS ON INHABITED LANDS:

-SOUTH MOZAMBIQUE CHANNEL ISLANDS (BASSAS DA INDIA, EUROPA):

DISTURBED CONDITIONS EXPECTED BETWEEN MONDAY AND TUESDAY WITH GUSTS OF 80 TO 100 KM/H, RAINFALL OF 50 TO 100 MM, 4-METER HIGH WAVES.

-MADAGASCAR: POSSIBLE LANDFALL FROM WEDNESDAY ON THE WEST COAST BUT WITH HIGH UNCERTAINTY ABOUT TIMING AND LOCATION. INTENSITY SHOULD BE ON THE LOW SIDE.