

WTIO30 FMEE 240050

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 8/12/20212022

1.A MODERATE TROPICAL STORM 12 (JASMINE)

2.A POSITION 2022/04/24 AT 0000 UTC:

WITHIN 30 NM RADIUS OF POINT 17.1 S / 40.0 E

(SEVENTEEN DECIMAL ONE DEGREES SOUTH AND
FORTY DECIMAL ZERO DEGREES EAST)

MOVEMENT: SOUTH 6 KT

3.A DVORAK ANALYSIS: 2.5/2.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 1000 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: 205 SE: 165 SW: 220 NW: 0

34 KT NE: 0 SE: 75 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/04/24 12 UTC: 18.1 S / 39.9 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 165 SE: 140 SW: 0 NW: 0

34 KT NE: 75 SE: 85 SW: 55 NW: 0

24H: 2022/04/25 00 UTC: 19.2 S / 40.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 120 SW: 85 NW: 85

34 KT NE: 65 SE: 75 SW: 55 NW: 55

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

36H: 2022/04/25 12 UTC: 20.4 S / 40.3 E, VENT MAX= 050 KT, MODERATE TROPICAL
STORM

28 KT NE: 155 SE: 110 SW: 0 NW: 85

34 KT NE: 65 SE: 75 SW: 0 NW: 55

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

48H: 2022/04/26 00 UTC: 21.1 S / 40.7 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 140 SE: 140 SW: 140 NW: 95

34 KT NE: 0 SE: 95 SW: 85 NW: 65

60H: 2022/04/26 12 UTC: 21.4 S / 41.2 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

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

34 KT NE: 0 SE: 75 SW: 0 NW: 0

72H: 2022/04/27 00 UTC: 20.7 S / 41.8 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

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

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

2.B LONGER-RANGE OUTLOOK:

96H: 2022/04/28 00 UTC: 18.2 S / 42.0 E, VENT MAX= 025 KT, FILLING UP

120H: 2022/04/29 00 UTC: 16.6 S / 41.9 E, VENT MAX= 025 KT, REMNANT LOW

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

SINCE ITS RETURN TO THE WARM WATERS OF THE MOZAMBIQUE CHANNEL, THE CLOUD PATTERN OF THE SYSTEM HAS SHOWN SIGNS OF INTENSIFICATION WITH MARKED ELECTRICAL ACTIVITY NEAR THE CENTER OF THE LLC, AND TOPS CLOUD HAVE GRADUALLY COOLED. THIS RENEWED ACTIVITY IS SEEN BY THE 1841Z ASCAT-C AND THE 1934Z ASCAT-B WHICH SHOW GALE FORCE WIND IN THE SOUTHEASTERN QUADRANT OF THE SYSTEM. THE SSMIS MICROWAVE PASSES OF THIS LATE AFTERNOON, AS WELL AS THE 2056Z GMI CONFIRM THIS GAIN IN TERMS OF ORGANIZATION AND CONSOLIDATION OF THE LOW LEVEL CORE. GIVEN TO THESE ELEMENTS, THE INTENSITY IS INCREASED TO 35KT AT THE STAGE OF MODERATE TROPICAL STORM, AND HAS BEEN NAMED JASMINE BY THE METEOROLOGICAL SERVICE OF MADAGASCAR AT 23UTC.

THE SYSTEM WILL TRACK SOUTH-SOUTHWESTWARDS, FOLLOWING THE NORTHEASTERLY FLOW GENERATED BY THE WESTERN EDGE OF A SUBTROPICAL RIDGE OF LOW TROPOSPHERE LOCATED SOUTHEAST OF MADAGASCAR. WITH THE INTENSIFICATION OF THE SYSTEM, THE STEERING FLOW IS RESUMED IN THE MIDDLE TROPOSPHERE BY THE PROGRESSIVE APPROACH OF A WEAK TROUGH OVER SOUTHERN AFRICA A RIDGE EAST AND SOUTHEAST. THE MOVEMENT WILL THEN TURN MORE SOUTHWARD ON SUNDAY, THEN SOUTHEAST ON MONDAY, WITH A TEMPORARY SLOWDOWN.

WITH THE TURNING OF THE TROUGH OFF THE SOUTH OF THE MOZAMBIQUE CHANNEL ON TUESDAY AND THE SWELLING OF A NEW RIDGE OVER SOUTHERN AFRICA IN THE MIDDLE OF THE WEEK, COMBINED WITH A WEAKENING OF THE SYSTEM, IT SHOULD TURN BACK AND MOVE BACK NORTHWARDS FROM TUESDAY. A VERY STRONG DISPERSION PERSISTS BETWEEN THE NUMERICAL MODELS, LETTING THE SYSTEM CIRCULATE MORE OR LESS NEAR THE COASTS OF MADAGASCAR OR MOZAMBIQUE. THE SCENARIO SELECTED BY THE RSMC IS CLOSE TO THE ENSEMBLE AND DETERMINIST FORECASTS OF THE EUROPEAN CENTER, AND KEEPS THE SYSTEM AT SEA FOR A LONG TIME IN THE MOZAMBIQUE CHANNEL UNTIL IT DISSIPATES. THE AMERICAN ENSEMBLE FORECAST (GEFS) IS GRADUALLY APPROACHING ITS EUROPEAN COUNTERPART.

IN TERMS OF INTENSITY, JASMINE IS EXPERIENCING OVERALL GOOD

ENVIRONMENTAL CONDITIONS UNTIL TUESDAY. BY FINDING THE WARM WATERS OF THE MOZAMBIQUE CHANNEL, THE STORM SHOULD FIND A STRONG OCEANIC POTENTIAL COUPLED WITH GOOD CONDITIONS ALOFT (LOW VERTICAL WINDSHEAR, AND GOOD DIVERGENCE ALOFT CHARACTERIZED BY A POLAR EVACUATION CHANNEL). THUS, AN INTENSIFICATION TO THE STAGE OF SEVERE TROPICAL STORM IS LIKELY ON SUNDAY. A SHORT PASSAGE THROUGH THE TROPICAL CYCLONE STAGE IS NOT TOTALLY EXCLUDED AT THIS POINT, EVEN IF THE FORECAST MODELS OF EUROPEAN AND AMERICAN ENSEMBLES DO NOT REALLY PROPOSE IT ANYMORE. FROM TUESDAY ONWARDS, THE INCREASE IN WESTERLY VWS COMBINED WITH AN INTRUSION OF DRY AIR IN THE MID-TROPOSPHERE SHOULD PROGRESSIVELY WEAKEN THE SYSTEM BEFORE A PROGRESSIVE DISSIPATION EXPECTED IN THE MIDDLE OR END OF NEXT WEEK.

IMPACTS ON INHABITED LANDS:

- WITH THE EVACUATION OF THE SYSTEM AT SEA, PERSISTENCE OF SOME RESIDUAL GUSTS ON SUNDAY ON THE MARITIME BORDER OF NAMPULA PROVINCE (MOZAMBIQUE). THE MOST IMPORTANT GUSTS ARE RAISED AT SEA IN A RATHER RESTRICTED AREA AROUND THE SYSTEM. ACCORDING TO THE PROGRESSION OF THE SYSTEM AT SEA, THE ISLANDS OF THE SOUTH OF THE CHANNEL (BASSAS DA INDIA AND EUROPA) COULD UNDERGO SOME GUSTS OF MODERATE INTENSITY AT THE BEGINNING OF NEXT WEEK OF ABOUT 60 TO 80 KM/H.
- GRADUAL DECREASE IN RAINFALL WITH LIGHT RAINFALL AMOUNTS EXPECTED NEAR THE COAST OF NAMPULA AND ZAMBEZIA PROVINCES. HEAVIEST RAINFALL AMOUNTS ARE BETWEEN 150 AND 300 MM IN 24 HOURS BETWEEN THE COASTS OF MOZAMBIQUE AND MADAGASCAR.
- SEA ROUGH TO LOCALLY VERY ROUGH AT THE END OF THE WEEKEND OFF THE COAST OF MOZAMBIQUE WITH WAVES OF ABOUT 5 TO 6 METERS, GRADUALLY LOWERING FROM TOMORROW SUNDAY. THE SEA CONDITIONS WILL DETERIORATE AT THE BEGINNING OF NEXT WEEK FOR THE ISLANDS OF THE SOUTH OF THE CHANNEL (BASSAS DA INDIA AND EUROPA) FOLLOWING THE MOVEMENT OF THE SYSTEM TO THE SOUTH. WAVES OF 3 TO 4 METERS ON AVERAGE ARE EXPECTED.