

WTIO30 FMEE 031825

RSMC / TROPICAL CYCLONE CENTER / LA REUNION  
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 16/1/20172018

1.A MODERATE TROPICAL STORM 1 (AVA)

2.A POSITION 2018/01/03 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 16.8 S / 52.9 E

(SIXTEEN DECIMAL EIGHT DEGREES SOUTH AND FIFTY TWO DECIMAL NINE  
DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 8 KT

3.A DVORAK ANALYSIS: 2.5/2.5/S 0.0/12 H

4.A CENTRAL PRESSURE: 993 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

28 KT NE: 150 SE: 130 SW: 90 NW: 150

34 KT NE: 90 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/01/04 06 UTC: 17.2 S / 51.8 E, MAX WIND=040 KT, MODERATE TROPICAL  
STORM

24H: 2018/01/04 18 UTC: 17.6 S / 50.5 E, MAX WIND=045 KT, MODERATE TROPICAL  
STORM

36H: 2018/01/05 06 UTC: 18.2 S / 49.2 E, MAX WIND=035 KT, OVERLAND DEPRESSION

48H: 2018/01/05 18 UTC: 19.1 S / 48.5 E, MAX WIND=030 KT, OVERLAND DEPRESSION

60H: 2018/01/06 06 UTC: 20.5 S / 48.0 E, MAX WIND=030 KT, OVERLAND DEPRESSION

72H: 2018/01/06 18 UTC: 21.8 S / 48.0 E, MAX WIND=030 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK :

96H: 2018/01/07 18 UTC: 24.5 S / 48.2 E, MAX WIND=040 KT, MODERATE TROPICAL  
STORM

120H: 2018/01/08 18 UTC: 26.4 S / 47.9 E, MAX WIND=040 KT, MODERATE TROPICAL  
STORM

2.C ADDITIONAL INFORMATION:

FT=CI=2.5+

OVER THE LAST 6 HOURS, THE CIRCULATION HAS REMAINED PARTIALLY EXPOSED. THE LAST 37GHZ WINDSAT MICROWAVE IMAGERY SHOWED A LOW LEVEL CIRCULATION AND A CENTRE WELL DEFINED. SINCE 1400Z, INFRARED IMAGERY HAS SHOWN NEW CONVECTIVE BURTS NEAR THE CENTRE AS AVA MOVES PROGRESSIVELY SOUTHWESTWARDS.

THIS NIGHT, THE SYSTEM IS FORECASTED TO KEEP ON ITS SOUTHWESTWARD TRACK TOWARD A FLAT LOW CIRCULATING AT SOUTH. BEHIND THIS FLAT, A BUILDING FAST RIDGE IS EXPECTED TO ORIENTATE THE SYSTEM WESTWARDS. ON THIS TRACK, A LANDFALL OVER THE MALAGASY COASTLINE, NEAR TAMATAVE REMAINS POSSIBLE FRIDAY MORNING. FROM FRIDAY NIGHT TO SATURDAY, AVA IS FORECASTED TO RE-CURVE SOUTHWARD BEHIND THE FAST RIDGE AND TOWARD A NEW MID-TOPOSPHERIC TROUGH. A LARGE UNCERTAINTY EXISTS ON THE ABILITY OF THE SYSTEM TO COME BACK OVER THE OCEAN FROM SATURDAY.

ENVIRONMENTAL CONDITIONS ARE FORECAST TO BECOME RATHER CONDUCIVE FOR AN INTENSIFICATION UP TO THE LANDFALL. THE UPPER VERTICAL WIND SHEAR IS EXPECTED TO DECAY WHILE MOVING SOUTH, WITH STILL A GOOD UPPER DIVERGENCE IN THE NORTH-WESTERN QUADRANT. SO SEVERE TROPICAL STORM STATUS IS STILL FORECAST. FROM SATURDAY, THE TRACK WILL BE DECISIVE FOR THE FORECAST INTENSITY. IN CASE OF PREMATURE EXIT OVER OCEAN, AVA MAY ENCOUNTER ENVIRONMENTAL CONDITIONS VERY FAVORABLE FOR A NEW PHASE OF INTENSIFICATION WITH A GOOD UPPER LEVEL DIVERGENCE AHEAD AN UPPER LEVEL TROUGH AND A LOW VERTICAL WINDSHEAR. ONLY THE DIMINUTION OF THE OCEANIC HEAT POTENTIAL UNDERNEATH SOUTH OF 25S SHOULD PREVENT THE SYSTEM INTENSITY. A TRACK FOR LONGER OVER LAND WILL LIMIT THE LIKELIHOOD OF REINTENSIFICATION.

THE PERIPHERAL THUNDERSTORMS BANDS ASSOCIATED TO THE SYSTEM ARE BEGINNING TO AFFECT THE WEATHER ON THE MALAGASY COASTLINES AND ON THE MASCARENES ARCHIPELAGO.