

WTIO30 FMEE 040047

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

0.A WARNING NUMBER: 17/1/20172018

1.A MODERATE TROPICAL STORM 1 (AVA)

2.A POSITION 2018/01/04 AT 0000 UTC:

WITHIN 30 NM RADIUS OF POINT 17.1 S / 51.9 E

(SEVENTEEN DECIMAL ONE DEGREES SOUTH AND FIFTY ONE DECIMAL NINE
DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 9 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 991 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT

RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

28 KT NE: 170 SE: 170 SW: 170 NW: 90

34 KT NE: 90 SE: 90 SW: 90 NW: 60

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

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/01/04 12 UTC: 17.6 S / 50.9 E, MAX WIND=045 KT, MODERATE TROPICAL
STORM

24H: 2018/01/05 00 UTC: 18.1 S / 49.9 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

36H: 2018/01/05 12 UTC: 18.8 S / 48.7 E, MAX WIND=040 KT, OVERLAND DEPRESSION

48H: 2018/01/06 00 UTC: 19.6 S / 48.0 E, MAX WIND=035 KT, OVERLAND DEPRESSION

60H: 2018/01/06 12 UTC: 21.4 S / 47.9 E, MAX WIND=030 KT, OVERLAND DEPRESSION

72H: 2018/01/07 00 UTC: 22.5 S / 48.2 E, MAX WIND=035 KT, MODERATE TROPICAL
STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/01/08 00 UTC: 24.5 S / 48.2 E, MAX WIND=045 KT, MODERATE TROPICAL
STORM

120H: 2018/01/09 00 UTC: 26.6 S / 46.5 E, MAX WIND=045 KT, MODERATE TROPICAL
STORM

2.C ADDITIONAL INFORMATION:

FT=CI=3.0

OVER THE LAST 6 HOURS, CONVECTIVE BURSTS HAVE OCCURED NEAR THE CENTER. BUT THE LAST INFRARED IMAGERIES SHOW A SOUTHEASTERN UPPER LEVEL CONSTRAINT. THIS CURRENT ASSESSMENT IS CONSISTENT WITH THE ADT FROM CIMSS.

TODAY, THE ARRIVAL OF A FAST RIDGE SOUTH OF MADAGASCAR SHOULD ALLOW TO THE SYSTEM TO KEEP ON ITS WESTSOUTHWESTWARD TRACK. 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. THIS FORECAST IS BASED ON A CEP/GFS CONSENSUS.

ENVIRONMENTAL CONDITIONS ARE RATHER CONDUCIVE FOR AN INTENSIFICATION UP TO THE LANDFALL WITH A GOOD UPPER DIVERGENCE IN THE NORTH-WESTERN QUADRANT. BUT A WEAK TO MODERATE EASTERN VERTICAL WINDSHEAR IS FORECASTED TO MAINTAIN. 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 AND A MODERATE NORTHWESTERN VERTICAL WINDSHEAR 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.