

WTIO30 FMEE 040638

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

0.A WARNING NUMBER: 18/1/20172018

1.A SEVERE TROPICAL STORM 1 (AVA)

2.A POSITION 2018/01/04 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 17.7 S / 51.8 E

(SEVENTEEN DECIMAL SEVEN DEGREES SOUTH AND FIFTY ONE DECIMAL EIGHT DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 6 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 987 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :56 KM

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

28 KT NE: 190 SE: 190 SW: 190 NW: 110

34 KT NE: 130 SE: 130 SW: 130 NW: 90

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 1200 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/01/04 18 UTC: 18.2 S / 50.8 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

24H: 2018/01/05 06 UTC: 18.6 S / 49.7 E, MAX WIND=065 KT, TROPICAL CYCLONE

36H: 2018/01/05 18 UTC: 19.2 S / 48.7 E, MAX WIND=050 KT, OVERLAND DEPRESSION

48H: 2018/01/06 06 UTC: 20.3 S / 48.1 E, MAX WIND=040 KT, OVERLAND DEPRESSION

60H: 2018/01/06 18 UTC: 21.7 S / 47.9 E, MAX WIND=030 KT, OVERLAND DEPRESSION

72H: 2018/01/07 06 UTC: 23.0 S / 48.3 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/01/08 06 UTC: 25.5 S / 47.8 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

120H: 2018/01/09 06 UTC: 27.5 S / 47.0 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

2.C ADDITIONAL INFORMATION:

T=CI=3.5

OVER THE LAST 6 HOURS, DEEP CONVECTION HAS ORGANIZED INTO CURVED BAND

PATTERN, AND IN THE LAST HOURS THE SYSTEM SHOWS A COLD CDO STRUCTURE ATTESTING THE INTENSIFICATION OF THE SYSTEM. THE LAST SATELLITE IMAGERY DEPICTS ALWAYS A WEAK EAST-SOUTH-EASTERLY CONSTRAINT.

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. MINIMAL TROPICAL CYCLONE STATUS IS NOW FORECAST AT THE LANDFALL PERIOD. 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 GOING ON OVER THE MASCARENES ARCHIPELAGO.