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

0.A WARNING NUMBER: 13/1/20172018
1.A TROPICAL DEPRESSION 1

2.A POSITION 2018/01/03 AT 0000 UTC:
WITHIN 20 NM RADIUS OF POINT 15.0 S / 52.6 E
(FIFTEEN DECIMAL ZERO DEGREES SOUTH AND FIFTY TWO DECIMAL SIX DEGREES EAST)
MOVEMENT : WEST-NORTH-WEST 8 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 995 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 30 KT
RADIUS OF MAXIMUM WINDS (RMW) :37 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 60 SE: 60 SW: 60 NW: 60

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 1900 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : MEDIUM

1.B FORECASTS:
12H: 2018/01/03 12 UTC: 15.8 S / 52.3 E, MAX WIND=035 KT, MODERATE TROPICAL STORM
24H: 2018/01/04 00 UTC: 16.7 S / 51.8 E, MAX WIND=040 KT, MODERATE TROPICAL STORM
36H: 2018/01/04 12 UTC: 17.0 S / 50.7 E, MAX WIND=045 KT, MODERATE TROPICAL STORM
48H: 2018/01/05 00 UTC: 17.4 S / 49.7 E, MAX WIND=055 KT, SEVERE TROPICAL STORM
60H: 2018/01/05 12 UTC: 18.1 S / 48.8 E, MAX WIND=030 KT, OVERLAND DEPRESSION
72H: 2018/01/06 00 UTC: 19.0 S / 48.5 E, MAX WIND=020 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK :
96H: 2018/01/07 00 UTC: 21.5 S / 48.1 E, MAX WIND=020 KT, OVERLAND DEPRESSION
120H: 2018/01/08 00 UTC: 23.9 S / 48.1 E, MAX WIND=025 KT, ZONE OF DISTURBED WEATHER

2.C ADDITIONAL INFORMATION:
FT=CI=2.5

OVER THE LAST 6 HOURS, CONVECTION MAINTAINED NEAR THE CENTER. THE CURVATURE OF THE CONVECTIVE BANDINGS REMAINED HIGH BUT THESE CLOUD PATTERNS HAVE TENDED TO CRUMBLE ON THE LAST IR SAT IMAGES. THE 2324Z SSMI MW IMAGES CONFIRM A CLEAR GAIN IN ORGANISATION WITH A RING OF CONVECTION OPENED IN ITS SOUTHERN HALF. THE SYSTEM INTENSITY IS MAINTAINED AT THE TROPICAL DEPRESSION STAGE WHILE WAITING FOR NEWER AND CLEARER OBSERVATION DATA.

OVER THE LAST HOURS, THE SYSTEM SLOWED DOWN PROBABLY BECAUSE OF A FLAT LOW CIRCULATING SOUTH OF MADAGASCAR AND WEAKENING THE STEERING FLOW DRIVEN BY THE RIDGE AXED OVER THE CENTRAL PART OF THE BASIN. FROM TOMORROW, THE AVAILABLE GUIDANCE IS IN RATHER GOOD AGREEMENT TO FORECAST A SOUTH-WESTWARD TRACK. A LANDFALL OVER THE MALAGASY COASTLINE REMAINS THE MOST LIKELY SCENARIO AND SHOULD OCCUR BETWEEN THURSDAY EVENING AND FRIDAY EVENING. THEN, THE ENSEMBLE PREDICTION SHOWS A HIGH UNCERTAINTY AND IT IS POSSIBLE THAT THE SYSTEM RETURNS OVER SEA SOMETIME DURING NEXT WEEK-END.

THE LOW LEVEL CONVERGENCE IS VERY CONDUCIVE BOTH EQUATORWARD AND POLERWARD. IN THE UPPER LEVELS, THE LIGHT EASTERN VERTICAL WINDSHEAR SHOULD NOT BE VERY SIGNIFICANT AND ALLOW A RATHER FAST PACE OF INTENSIFICATION. DURING THE WEEK-END, THE INTENSITY OF THE SYSTEM AT THE TIME OF ITS POSSIBLE RETURN OVER SEA REMAINS VERY UNCERTAIN. IN SUCH A SCENARIO, THE LOW WOULD STILL BENEFIT FROM CONDUCIVE ENVIRONMENTAL CONDITIONS, POSSIBLY LEADING TO A RE-INTENSIFICATION.

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