

WTIO30 FMEE 030054

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

0.A WARNING NUMBER: 3/6/20162017

1.A TROPICAL DISTURBANCE 6

2.A POSITION 2017/03/03 AT 0000 UTC:

WITHIN 30 NM RADIUS OF POINT 12.2 S / 57.9 E

(TWELVE DECIMAL TWO DEGREES SOUTH AND FIFTY SEVEN DECIMAL NINE DEGREES EAST)

MOVEMENT : WEST 10 KT

3.A DVORAK ANALYSIS: 2.0/2.0/D 0.5/12 H

4.A CENTRAL PRESSURE: 1001 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 25 KT

RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 1000 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2017/03/03 12 UTC: 12.7 S / 57.2 E, MAX WIND=030 KT, TROPICAL DEPRESSION

24H: 2017/03/04 00 UTC: 13.2 S / 56.8 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

36H: 2017/03/04 12 UTC: 13.4 S / 56.6 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

48H: 2017/03/05 00 UTC: 13.8 S / 56.5 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

60H: 2017/03/05 12 UTC: 14.2 S / 56.3 E, MAX WIND=065 KT, TROPICAL CYCLONE

72H: 2017/03/06 00 UTC: 14.9 S / 55.7 E, MAX WIND=075 KT, TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK :

96H: 2017/03/07 00 UTC: 16.2 S / 54.6 E, MAX WIND=090 KT, INTENSE TROPICAL CYCLONE

120H: 2017/03/08 00 UTC: 18.0 S / 53.4 E, MAX WIND=095 KT, INTENSE TROPICAL CYCLONE

2.C ADDITIONAL INFORMATION:

T=CI=2.0-

OVER THE LAST 6 HOURS, CONVECTION REMAINED STRONG IN THE WESTERN HALF OF THE SYSTEM. HOWEVER, A LIGHT EASTERLY UPPER SHEAR IS STILL SLOWING DOWN THE CYCLOGENESIS PROCESS. DESPITE THIS CONSTRAINT, 2216Z SSMI MW SWATH SUGGEST THAT THE LOW LEVEL CIRCULATION IS NOW ALMOST SYMMETRICAL. CONVECTION IS ALSO STRONG IN THE SOUTHERN SEMI-CIRCLE FAR FROM THE CENTER, IN THE CONVERGENCE BETWEEN THE TRADE WINDS AND THE NORTHERLY FLOW DRIVEN BY THE SYSTEM.

THE CURRENT TRACK IS DRIVEN BY A RIDGE IN THE EAST. THIS STRUCTURE SHOULD GRADUALLY WEAKEN OVER THE WEEK-END, LEAVING THE SYSTEM DRIFTING SOUTH-WESTWARDS. IN THE BEGINNING OF NEXT WEEK, THE UNCERTAINTY REMAINS HIGH. THE ARRIVAL OF A WIDE RIDGE IN THE SOUTH-WEST IS HANDLED VERY DIFFERENTLY BY THE AVAILABLE MODELS. A QUICK BUILDING OF THIS HIGH STEER THE SYSTEM WEST-SOUTH-WESTWARDS (ECMWF SCENARIO) BUT A SLOWER ARRIVAL ALLOWS THE SYSTEM TO DIVE SOUTHWARDS, TOWARDS A FLAT LOW (SCENARIO GFS/UKMO). OVER THE LAST RUNS, THE AVAILABLE MODELS SEEM TO CONVERGE TOWARD A PARABOLIC TRACK BETWEEN THE MASCARENES AND MADAGASCAR (MEAN SCENARIO), EXCEPT THE ECMWF MODEL WHICH DO NOT VARY.

AS THE LIGHT UPPER SHEAR SHOULD DISAPPEAR BY THIS EVENING, THE ENVIRONMENTAL CONDITIONS ARE THEN ALL CONDUCIVE FOR A SUSTAINED AND CONTINUOUS INTENSIFICATION OF THE SYSTEM. THE UPPER DIVERGENCE SHOULD STRENGTHEN OVER THE WEEK-END WITH THE APPEARANCE OF POLEWARD THEN EQUATORWARD OUTFLOW CHANNELS. FURTHERMORE, THE SYSTEM SHOULD ONLY TRACK OVER WATERS WITH HIGH ENERGY CONTENT. THUS, IT SHOULD REACH THE STAGE OF INTENSE TROPICAL CYCLONE AT THE END OF THE FORECAST RANGE.