

WTIO30 FMEE 031228

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

0.A WARNING NUMBER: 6/6/20172018

1.A MODERATE TROPICAL STORM 6 (DUMAZILE)

2.A POSITION 2018/03/03 AT 1200 UTC:

WITHIN 25 NM RADIUS OF POINT 15.3 S / 52.6 E

(FIFTEEN DECIMAL THREE DEGREES SOUTH AND FIFTY TWO DECIMAL SIX DEGREES EAST)

MOVEMENT : SOUTH-WEST 8 KT

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

4.A CENTRAL PRESSURE: 992 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :NIL

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

28 KT NE: 370 SE: 280 SW: 190 NW: 0

34 KT NE: 240 SE: 240 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/03/04 00 UTC: 16.8 S / 52.0 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

24H: 2018/03/04 12 UTC: 18.6 S / 51.3 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

36H: 2018/03/05 00 UTC: 20.2 S / 51.0 E, MAX WIND=070 KT, TROPICAL CYCLONE

48H: 2018/03/05 12 UTC: 22.0 S / 51.7 E, MAX WIND=065 KT, TROPICAL CYCLONE

60H: 2018/03/06 00 UTC: 23.8 S / 52.8 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

72H: 2018/03/06 12 UTC: 25.7 S / 54.2 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/03/07 12 UTC: 28.8 S / 57.2 E, MAX WIND=050 KT, POST-TROPICAL DEPRESSION

120H: 2018/03/08 12 UTC: 32.0 S / 60.4 E, MAX WIND=045 KT, POST-TROPICAL DEPRESSION

2.C ADDITIONAL INFORMATION:

T=CI=3.0-

THIS AFTERNOON, CONVECTION REMAINED LOCATED OVER THE EASTERN SEMI-CIRCLE. THE LOW LEVEL CIRCULATION CENTER EVEN APPEARED TEMPORARILY ON THE WESTERN BORDER OF THE CONVECTION. AS NO AVAILABLE DATA SUGGEST ANY SIGNIFICANT WINDSHEAR CONSTRAINT, THE PRESENCE OF A DRIER AIR POACH SEEMS TO BE THE MOST REASONABLE EXPLANATION FOR THIS ASYMMETRY. HOWEVER, STRONG CONVECTIVE BURSTS TRIGGERED NEAR THE CENTER OVER THE LAST 2 HOURS, WHICH JUSTIFIED A SLIGHT INCREASE OF THE ESTIMATED INTENSITY.

AS ANTICIPATED, DUMAZILE ACCELERATED SOUTH-WESTWARD UNDER THE INFLUENCE OF A MID-LEVEL RIDGE BUILDING EAST OF THE SYSTEM. MONDAY, AS DUMAZILE CIRCUMVENTS THE RIDGE, ITS TRACK SHOULD BEND SOUTH-SOUTH-EASTWARD. IN THE END OF THE PERIOD, A MID-LATITUDES TROUGH CIRCULATING IN THE SOUTH SHOULD ALLOW A QUICK EVACUATION. THE MODEL DISPERSION SIGNIFICANTLY DECREASED OVER THE LAST 24 HOURS, WHICH GIVES A GOOD CONFIDENCE IN THIS TRACK FORECAST.

WHEN CONVECTION WILL FINALLY MANAGE TO HUMIDIFY THE WESTERN HALF OF THE CIRCULATION, THE GLOBALLY CONDUCIVE ENVIRONMENT SHOULD ALLOW A GRADUAL INTENSIFICATION UNTIL SUNDAY EVENING, WITH LOW SHEAR AND GOOD UPPER LEVEL OUTFLOW NORTH AND SOUTH OF THE SYSTEM. MONDAY, THE SYSTEM IS FORECAST TO START WEAKENING UNDER A STRENGTHENING NORTHERLY THEN WESTERLY UPPER LEVEL CONSTRAINT. THIS VERTICAL WINDSHEAR SHOULD INCREASE TUESDAY AND WEDNESDAY AS AN UPPER TROUGH APPROACHES FROM THE WEST. WITHIN A MORE AND MORE BAROCLINIC ENVIRONMENT, THE SYSTEM SHOULD THEN BEGIN TO TAKE POST-TROPICAL CHARACTERISTICS WHILE SLOWLY WEAKENING.