

WTIO30 FMEE 040657

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

0.A WARNING NUMBER: 9/6/20172018

1.A SEVERE TROPICAL STORM 6 (DUMAZILE)

2.A POSITION 2018/03/04 AT 0600 UTC:

WITHIN 25 NM RADIUS OF POINT 18.0 S / 51.1 E

(EIGHTEEN DECIMAL ZERO DEGREES SOUTH AND FIFTY ONE DECIMAL ONE
DEGREES EAST)

MOVEMENT : SOUTH-SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 4.0/4.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 983 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT

RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

28 KT NE: 430 SE: 370 SW: 300 NW: 190

34 KT NE: 150 SE: 220 SW: 190 NW: 150

48 KT NE: SE: 90 SW: 90 NW:

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 1200 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/03/04 18 UTC: 19.6 S / 50.6 E, MAX WIND=065 KT, TROPICAL CYCLONE

24H: 2018/03/05 06 UTC: 21.2 S / 50.8 E, MAX WIND=075 KT, TROPICAL CYCLONE

36H: 2018/03/05 18 UTC: 22.8 S / 51.5 E, MAX WIND=075 KT, TROPICAL CYCLONE

48H: 2018/03/06 06 UTC: 24.4 S / 52.5 E, MAX WIND=070 KT, TROPICAL CYCLONE

60H: 2018/03/06 18 UTC: 25.8 S / 53.7 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

72H: 2018/03/07 06 UTC: 27.1 S / 55.0 E, MAX WIND=050 KT, POST-TROPICAL
DEPRESSION

2.B LONGER-RANGE OUTLOOK :

96H: 2018/03/08 06 UTC: 30.5 S / 58.7 E, MAX WIND=045 KT, POST-TROPICAL
DEPRESSION

120H: 2018/03/09 06 UTC: 37.4 S / 62.7 E, MAX WIND=045 KT, EXTRATROPICAL
DEPRESSION

2.C ADDITIONAL INFORMATION:

T=CI=4.0-

OVER THE PAST SIX HOURS, INTENSE CONVECTIVE ACTIVITY REMAINED CLOSE TO THE CENTER OF DUMAZILE, ALTHOUGH CLOUD TOPS ARE MAINLY WARMER WITH THE DIURNAL CYCLE. LAST MICROWAVE DATA (0228Z WINDSAT) SHOW THAT THE INNER CORE IS CONTRACTING, BECOMING MORE DEFINED, DESPITE THE INITIAL BROAD STRUCTURE. THIS MORNING ASCAT SWATH CONFIRMED THAT MAXIMUM WINDS ARE LIKELY REACHING 50 TO 55KT IN THE SOUTH-EASTERN QUADRANT.

DURING THE LAST HOURS, DUMAZILE CONTINUED TO TRACK SOUTH SOUTH-WESTWARD, UNDER THE INFLUENCE OF A MID-LEVEL RIDGE BUILDING EAST OF THE SYSTEM. TONIGHT, AS DUMAZILE CIRCUMVENTS THE RIDGE, ITS TRACK SHOULD BEND SOUTH THEN SOUTH-SOUTH-EASTWARD TOMORROW. AT LONG RANGE, A MID-LATITUDES TROUGH CIRCULATING IN THE SOUTH SHOULD ALLOW A QUICK EVACUATION. THE MODEL DISPERSION IS RATHER WEAK, WHICH GIVES A GOOD CONFIDENCE IN THIS TRACK FORECAST.

THE ENVIRONMENT REMAINS GLOBALLY CONDUCIVE FOR INTENSIFICATION WITH LOW SHEAR AND GOOD UPPER LEVEL OUTFLOW NORTH AND SOUTH OF THE SYSTEM, UNTIL SUNDAY EVENING. MONDAY, DURING DAY, THE SYSTEM IS FORECAST TO START WEAKENING UNDER A STRENGTHENING NORTHERLY THEN WESTERLY UPPER LEVEL CONSTRAINT AND THE DECAY OF THE EQUATORIAL SIDE DIVERGENCE. THIS VERTICAL WIND SHEAR IS INCREASING TUESDAY AND WEDNESDAY AS AN UPPER TROUGH IS APPROACHING FROM THE WEST. WITHIN A MORE AND MORE BAROCLINIC ENVIRONMENT WITH COOLER WATERS SOUTH OF 27S, THE SYSTEM SHOULD BEGIN ITS POST-TROPICAL TRANSITION DURING THE MIDDLE OF NEXT WEEK.