

WTIO30 FMEE 030124

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

0.A WARNING NUMBER: 4/6/20172018

1.A MODERATE TROPICAL STORM 6 (DUMAZILE)

2.A POSITION 2018/03/03 AT 0000 UTC:

WITHIN 30 NM RADIUS OF POINT 14.2 S / 54.3 E

(FOURTEEN DECIMAL TWO DEGREES SOUTH AND FIFTY FOUR DECIMAL THREE
DEGREES EAST)

MOVEMENT : SOUTH 12 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 995 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT

RADIUS OF MAXIMUM WINDS (RMW) :NIL

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

28 KT NE: 240 SE: 190 SW: 0 NW: 0

34 KT NE: 150 SE: 130 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: 2018/03/03 12 UTC: 15.7 S / 53.3 E, MAX WIND=045 KT, MODERATE TROPICAL
STORM

24H: 2018/03/04 00 UTC: 17.1 S / 52.3 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

36H: 2018/03/04 12 UTC: 18.8 S / 51.5 E, MAX WIND=070 KT, TROPICAL CYCLONE

48H: 2018/03/05 00 UTC: 20.4 S / 51.5 E, MAX WIND=080 KT, TROPICAL CYCLONE

60H: 2018/03/05 12 UTC: 22.1 S / 52.2 E, MAX WIND=075 KT, TROPICAL CYCLONE

72H: 2018/03/06 00 UTC: 23.7 S / 53.1 E, MAX WIND=070 KT, TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK :

96H: 2018/03/07 00 UTC: 26.2 S / 55.2 E, MAX WIND=060 KT, POST-TROPICAL
DEPRESSION

120H: 2018/03/08 00 UTC: 29.5 S / 58.0 E, MAX WIND=050 KT, POST-TROPICAL
DEPRESSION

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

A SCATSAT PASS AT 1605Z SHOW 30-35 KT WINDS MAINLY OVER THE NORTH-EASTERN QUADRANT. AS THE OVERALL PATTERN HAS CONTINUE TO SLOWLY IMPROVE, GALE FORCE WINDS ARE ESTIMATED TO BE PRESENT WITHIN THE EASTERN SEMI-CIRCLE. THUS THE SYSTEM HAS BEEN NAMED BY THE NWS OF MADAGASCAR.

AN SSMI PASS AT 2252Z RECEIVED JUST IN TIME WAS USEFULL TO LOCATE THE CENTER. IT SHOWS THAT THE LOW LEVEL STRUCTURE ALTHOUGH IMPROVING REMAIN LESS IMPRESSIVE THAN THE OVERALL PATTERN SEEN ON CLASSICAL IMAGERY.

THE ENVIRONMENT REMAINS VERY CONDUCTIVE FOR INTENSIFICATION WITH LOW SHEAR, HIGH MID-LEVEL HUMIDITY AND GOOD UPPER LEVEL OUTFLOW NORTH AND SOUTH OF THE SYSTEM. THE LACK OF LOW LEVEL STRUCTURE APPEARS ARE THE ONLY LIMITING FACTOR FOR RAPID INTENSIFICATION AT PRESENT TIME. THE OCCURRENCE OF A SUCH INTENSIFICATION RELY ON A STRONG IMPROVEMENT OF THE LOW LEVEL PATTERN.

DUMAZILE HAS TRACKED SOUTHWARDS LAST NIGHT (190°) AND SHOULD GRADUALLY BEND SOUTH-SOUTH-WESTWARDS AS A RIDGE BUILDS IN THE MID LEVEL EAST OF THE SYSTEM. SUNDAY, THE SYSTEM SHOULD KEEP ON INTENSIFYING, WITH ONLY ON POLAR OUTFLOW CHANNEL LEFT, TRACKING GRADUALLY SOUTHWARDS AND THEN SOUTH-EASTWARDS SUNDAY NIGHT AS THE MID LEVEL RIDGE SHIFT TO THE NORTH-EAST AND NORTH OF THE SYSTEM. THE CURRENT FORECAST IS MAINLY BASED ON A MEAN TRACK BASED ON IFS12Z AND GFS18Z.

MONDAY, THE SYSTEM IS FORECAST TO START WEAKENING UNDER A STRENGTHENING WESTERLY UPPER LEVEL CONSTRAINT THAT IS EXPECTED TO INCREASE THEREAFTER AS THE SYSTEM WILL MOVE THROUGH AN INCREASINGLY MORE BAROCLINIC ENVIRONMENT.