

WTIO30 FMEE 180648

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 3/12/20182019

1.A SEVERE TROPICAL STORM 12 (SAVANNAH)

2.A POSITION 2019/03/18 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 17.0 S / 89.1 E

(SEVENTEEN DECIMAL ZERO DEGREES SOUTH AND
EIGHTY NINE DECIMAL ONE DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 4 KT

3.A DVORAK ANALYSIS: 4.0/4.5/W 1.5/24 H

4.A CENTRAL PRESSURE: 983 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 60 KT

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

28 KT NE: 190 SE: 190 SW: 250 NW: 60

34 KT NE: 130 SE: 150 SW: 190 NW: 40

48 KT NE: 0 SE: 110 SW: 110 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/03/18 18 UTC: 17.5 S / 87.5 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

24H: 2019/03/19 06 UTC: 17.8 S / 86.0 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

36H: 2019/03/19 18 UTC: 18.2 S / 84.4 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

48H: 2019/03/20 06 UTC: 18.6 S / 83.1 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

60H: 2019/03/20 18 UTC: 19.1 S / 82.0 E, VENT MAX= 030 KT, FILLING UP

72H: 2019/03/21 06 UTC: 19.3 S / 80.9 E, VENT MAX= 025 KT, FILLING UP

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

T=4.0- CI=4.5-

MW IMAGERY OVERNIGHT DEPICT A POORLY DEFINED INNER CORE STRUCTURE OF
TC SAVANNAH. FIRST VIS IMAGERY SHOW A SHEAR-LIKE PATTERN WITH THE

CENTER PARTLY EXPOSED TO THE NORTH-WEST OF THE CONVECTIVE MASS. RECENTLY, THE CENTER HAS BEEN EMBEDDED AGAIN WITHIN THE THUNDERSTORM AREA WITH SOME ATTEMPT OF FORMATION OF A NEW EYE ON VIS IMAGERY. THE FINAL INTENSITY IS SET BELOW THE SUBJECTIVE DVORAK ESTIMATES AND CLOSE TO A SATCON ESTIMATES AT 73 KT (1-MIN WINDS) AT 0205Z.

SAVANNAH IS LOCATED IN AN ENVIRONMENT OF SLOW STEERING FLOW WITHIN A MID-LEVEL BAROMETRIC COL. A SMALL RIDGE TO THE SOUTH SEEMS ENOUGH TO GIVE THIS SLOW GENERALLY WESTWARDS TRACK. AS THE BAROMETRIC COL WILL GRADUALLY SHIFT EASTWARDS, A STRENGTHENING LOW TO MID LEVEL RIDGE LOCATED FAR TO THE SOUTH-WEST OF THE SYSTEM WILL KEEP THE CURRENT TRACK OVER THE NEXT COUPLE OF DAYS WITH SOME GRADUAL INCREASE OF THE FORWARD MOTION.

SINCE THE OCEANIC ENERGY CONTENT DOES NOT REALLY PRESENT ANY CONSTRAINTS, IT IS THE ATMOSPHERIC CONDITION THAT CONTROL THE INTENSITY FORECAST. MW IMAGERY SUGGEST THAT SOME DRY AIR INTRUSION HAS HELPED THE WEAKENING TREND OBSERVED SINCE YESTERDAY AFTERNOON. SOME PERSISTENT LOW TO MODERATE DEEP AND MID LAYERS SHEAR FROM THE WEST-SOUTH-WEST STILL BRING SOME DRY AIR WITHIN THE CORE BUT THE RECENT IMPROVEMENT OF THE CLOUD PATTERN SUGGEST THAT THIS CONDITION ARE NOT HOSTILE ENOUGH TO BRING SOME ADDITIONAL SIGNIFICANT WEAKENING. THEREFORE SOME SLOW WEAKENING IS EXPECTED WITHIN THE NEXT 12-24 HRS. BEYOND THAT, INCREASING WESTERLY SHEAR SHOULD INDUCE FURTHER WEAKENING TOWARDS FINAL DISSIPATION.