

WTIO30 FMEE 300710

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 9/4/20192020

1.A SEVERE TROPICAL STORM 4 (CALVINIA)

2.A POSITION 2019/12/30 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 20.6 S / 58.4 E

(TWENTY DECIMAL SIX DEGREES SOUTH AND
FIFTY EIGHT DECIMAL FOUR DEGREES EAST)

MOVEMENT: WEST 2 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 1.0/24 H

4.A CENTRAL PRESSURE: 982 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW): 20 KM

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

28 KT NE: 510 SE: 560 SW: 320 NW: 130

34 KT NE: 70 SE: 70 SW: 190 NW: 80

48 KT NE: 0 SE: 30 SW: 30 NW: 30

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 1400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/12/30 18 UTC: 20.6 S / 57.5 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

24H: 2019/12/31 06 UTC: 21.0 S / 57.6 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

36H: 2019/12/31 18 UTC: 22.5 S / 58.9 E, VENT MAX= 065 KT, TROPICAL CYCLONE

48H: 2020/01/01 06 UTC: 25.3 S / 60.6 E, VENT MAX= 065 KT, TROPICAL CYCLONE

60H: 2020/01/01 18 UTC: 29.4 S / 62.5 E, VENT MAX= 060 KT, POST-TROPICAL
DEPRESSION

72H: 2020/01/02 06 UTC: 33.9 S / 64.4 E, VENT MAX= 050 KT, POST-TROPICAL
DEPRESSION

2.B LONGER-RANGE OUTLOOK:

96H: 2020/01/03 06 UTC: 39.1 S / 72.5 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

2.C ADDITIONAL INFORMATION:

T=CI=3.5

CALVINIA HAS CONTINUED TO INTENSIFY THIS MORNING? THE CURVED BAND
PATTERN HAS STRENGTHENED AND RADAR DATA FROM LA REUNION AND

MAURITIUS SHOW THAT A SMALL EYE IS BUILDING WITHIN THE COMPACT INNER-CORE. THE CURRENT INTENSITY IS BASED ON SUBJECTIVE DVORAK ESTIMATES AT 3.5 FROM SAB AND FMEE.

CALVINIA HAS CURVED WESTWARDS SINCE 00Z. THE CURRENT FORWARD MOTION IS AN AVERAGE OVER SEVERAL HOURS BUT THE VERY LAST TREND IS QUASI-STAT AT ABOUT 70 KM EAST-SOUTH-EAST OF MAURITIUS. THE SYSTEM IS CURRENTLY WITHIN A BAROMETRIC COL AT THE MID-LEVELS THUS THE VERY SLOW AND IRREGULAR MOTION. ALL GUIDANCE ARE IN AGREEMENT TO SUGGEST A WESTWARD DRIFT AS A TRANSCIENT RIDGE IS BUILDING FAR TO THE SOUTH OF THE SYSTEM. WEDNESDAY, THE AFOREMENTIONED RIDGE SHIFTS EASTWARDS AND CALVINIA SHOULD BE TAKEN AWAY TOWARDS THE MID-LATITUDES BY A PASSING TROUGH IN THE SOUTH AND THE LASTING INFLUENCE OF THE SUBTROPICAL MID-LEVEL RIDGE IN THE NORTH-EAST OF THE SYSTEM. THE CURRENT FORECAST IS BASED ON A GFS-IFS-AROME CONSENSUS BIASED TOWARDS GFS THAT WAS GOOD TO SUGGEST THE RECENT TREND.

WITHIN AN AREA OF LOW SHEAR, CALVINIA HAS BEEN ABLE TO DEVELOP AN UPPER LEVEL OUTFLOW HELPED BY UPPER LEVEL DIVERGENCE TO THE SOUTH. UPPER LEVEL DIVERGENCE ARE EXPECTED TO STRENGTHEN AGAIN LATER TONIGHT AND TOMORROW AHEAD OF AN APPROACHING TROUGH BEFORE DETERIORATING FROM WEDNESDAY. THE CURRENT INTENSITY FORECAST HAS BEEN UPGRADED AND FOLLOW THE LAST AROME GUIDANCE. HOWEVER DUE TO THE SLOW MOTION AND THE VICINITY OF MAURITIUS, THE INTENSITY FORECAST REMAINS A TOUGH ONE.

CALVINIA SHOW NOW A DIRECT THREAT TO MAURITIUS AND THE SYSTEM COULD MOVE DANGEROUSLY VERY CLOSE OR OVER MAURITIUS LATER TODAY OR TONIGHT. ADDITIONAL RAINS IN THE ORDER OF 100 MM / 24H ARE POSSIBLE AND INHABITANTS ARE URGED TO FOLLOW ADVICE FROM OFFICIALS AND FOLLOW THIS SERIOUS SITUATION.