

WTIO30 FMEE 060712

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 5/9/20182019

1.A MODERATE TROPICAL STORM 9 (GELENA)

2.A POSITION 2019/02/06 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 12.3 S / 53.4 E

(TWELVE DECIMAL THREE DEGREES SOUTH AND  
FIFTY THREE DECIMAL FOUR DEGREES EAST)

MOVEMENT: NORTH-NORTH-WEST 2 KT

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

4.A CENTRAL PRESSURE: 998 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

28 KT NE: 130 SE: 130 SW: 130 NW: 130

34 KT NE: 60 SE: 60 SW: 60 NW: 60

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: NIL

1.B FORECASTS:

12H: 2019/02/06 18 UTC: 12.4 S / 52.7 E, VENT MAX= 050 KT, MODERATE TROPICAL STORM

24H: 2019/02/07 06 UTC: 13.1 S / 53.4 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

36H: 2019/02/07 18 UTC: 13.8 S / 54.2 E, VENT MAX= 075 KT, TROPICAL CYCLONE

48H: 2019/02/08 06 UTC: 15.2 S / 56.0 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

60H: 2019/02/08 18 UTC: 16.6 S / 58.1 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

72H: 2019/02/09 06 UTC: 18.4 S / 60.6 E, VENT MAX= 085 KT, TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK:

96H: 2019/02/10 06 UTC: 22.2 S / 67.3 E, VENT MAX= 075 KT, TROPICAL CYCLONE

120H: 2019/02/11 06 UTC: 26.0 S / 73.2 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

2.C ADDITIONAL INFORMATION:

T=CI=3.0-

OVER THE LAST 6 HOURS, CONVECTION WRAPPED AROUND THE CIRCULATION CENTER THANKS TO THE DECREASE IN ENVIRONMENTAL WIND SHEAR. THE SAT

PRESENTATION YIELDS A 40-KT DVORAK ESTIMATION, IN AGREEMENT WITH THE 0547Z ASCAT SCATT WINDS. THUS, MADAGASCAR MET SERVICE PROCEEDED TO THE NAMING OF THE SYSTEM THIS MORNING AT 03Z. THE 2332Z SSMI AND 0127Z SSMIS MW IMAGES SHOW A CONSOLIDATING AND RATHER COMPACT LOW-LEVEL INNER CORE.

CURRENTLY, GELENA IS MOVING NORTH-NORTH-WESTWARD UNDER THE INFLUENCE OF A WEAK LOW-LEVEL RIDGE LOCATED OVER MADAGASCAR, SOUTH OF THE SYSTEM. THIS EVENING, WITH THE INTENSIFICATION OF GELENA AND THE WEAKENING OF THE AFOREMENTIONNED RIDGE, THE STEERING FLOW SHOULD COME UP IN THE MID-LEVELS AND A DEEP UPPER-TO-MID LEVELS TROUGH LOCATED SOUTH OF THE MASCARENES SHOULD GRADUALLY TAKE OVER, UNTIL THE END OF THE TAUS. THUS, AFTER POSSIBLY FOLLOWING A LOOP IN THE NEXT HOURS, THE SYSTEM SHOULD GRADUALLY ACCELERATE SOUTHEASTWARDS FROM THURSDAY, FUNNELED BETWEEN THE TROUGH AND THE NEAR-EQUATORIAL RIDGE IN THE NORTH-EAST OF THE SYSTEM. CONSEQUENTLY, THE ENSEMBLE PREDICTION SHOWS WEAK DISPERSION. THE MAIN UNCERTAINTY IS IN THE ALONG-TRACK TIMING.

THE SYSTEM IS NOW IN A FAVORABLE ENVIRONMENT FOR ITS DEVELOPMENT, WHICH WILL BECOME VERY FAVORABLE. A RAPID INTENSIFICATION PHASE IS LIKELY TO TRIGGER BY FRIDAY EVENING. THEN, WITH THE STRENGTHENING OF A WESTERLY FLOW ALOFT, THE SYSTEM'S INTENSITY SHOULD REACH A PLATEAU BEFORE BEGINNING A SLOW WEAKENING FROM SATURDAY. HOWEVER, THE RAPID MOTION OF GELENA COULD ALLOW IT TO ESCAPE THE HARMFUL EFFECTS OF THE STRONG UPPER WINDS AT FIRST, MAKING THE EXACT TIMING OF THE BEGINNING OF THE WEAKENING A LITTLE MORE UNCERTAIN THAN USUAL.

THE INHABITANTS OF RODRIGUES ISLAND ARE INVITED TO CLOSELY MONITOR THE EVOLUTION OF GELENA, A DIRECT IMPACT OF THE SYSTEM BEING POSSIBLE SATURDAY, ONLY TWO DAYS AFTER FUNANI.