

WTIO30 FMEE 090048

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 16/9/20182019

1.A INTENSE TROPICAL CYCLONE 9 (GELENA)

2.A POSITION 2019/02/09 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 17.1 S / 57.2 E

(SEVENTEEN DECIMAL ONE DEGREES SOUTH AND
FIFTY SEVEN DECIMAL TWO DEGREES EAST)

MOVEMENT: SOUTH-EAST 12 KT

3.A DVORAK ANALYSIS: 5.5/6.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 950 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 100 KT

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

28 KT NE: 300 SE: 200 SW: 150 NW: 220

34 KT NE: 190 SE: 150 SW: 110 NW: 150

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

64 KT NE: 70 SE: 70 SW: 70 NW: 70

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/02/09 12 UTC: 19.0 S / 60.3 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

24H: 2019/02/10 00 UTC: 20.1 S / 62.8 E, VENT MAX= 085 KT, TROPICAL CYCLONE

36H: 2019/02/10 12 UTC: 21.3 S / 65.1 E, VENT MAX= 070 KT, TROPICAL CYCLONE

48H: 2019/02/11 00 UTC: 22.4 S / 66.7 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

60H: 2019/02/11 12 UTC: 23.2 S / 68.3 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

72H: 2019/02/12 00 UTC: 23.4 S / 70.1 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

2.B LONGER-RANGE OUTLOOK:

96H: 2019/02/13 00 UTC: 23.4 S / 72.9 E, VENT MAX= 030 KT, MODERATE TROPICAL
STORM

120H: 2019/02/14 00 UTC: 23.2 S / 75.1 E, VENT MAX= 020 KT, FILLING UP

2.C ADDITIONAL INFORMATION:

T=5.5-, CI=6.0.

OVER THE LAST 6 HOURS, AFTER HAVING COMPLETED AN ERC, THE SYSTEM HAS TAKEN A HIGH RATE OF INTENSIFICATION WITH THE BENEFIT OF THE TWO OUTFLOW CHANNELS, SHOWING FOR SOME HOURS A DEEP CONVECTION VERY COLD WITH A SMALL EYE YET TILTED. BUT THE SYSTEM SEEMS TO HAVE REACHED ITS MAXIMUM OF INTENSITY, CONVECTION SEEMS BEGIN TO REACT TO THE STRONG NORTHWESTERLY UPPER LEVEL FLOW BEGING TO ESTABLISH.

THE CURRENT TRACK TO THE SOUTHEAST CONTINUES. THE DEEP UPPER-TO-MID LEVELS TROUGH LOCATED SOUTH OF THE MASCARENES ALONG WITH A STRENGTHENING NEAR EQUATORIAL RIDGE IN THE NORTH-EAST ARE NOW STEERING THE CYCLONE. THESE TWO SYNOPTIC FEATURES ARE FUNNELING THE TRACK AND PROVIDE GOOD CONFIDENCE FOR THE NEXT TWO DAYS. FROM MONDAY, UNDER THE INFLUENCE OF A LOW-LEVEL RIDGE CIRCULATING FROM THE WEST. THE SYSTEM SHOULD THEN RESUME AN EASTWARD TRACK WHILE WEAKENING.

A WESTERLY FLOW SHOULD STRENGTHEN ALOFT. GELENA SHOULD THUS BEGIN TO SLOWLY WEAKEN SATURDAY. HOWEVER, THE RAPID MOTION OF GELENA COULD ALLOW IT TO ESCAPE THE HARMFUL EFFECTS OF THE STRONG UPPER WINDS AT FIRST. THE BLOCKAGE BY THE RIDGE TO THE SOUTH WILL SLOW THE SYSTEM DOWN FROM SUNDAY AND GELENA WILL THEN SEE ITS INTENSITY WEAKEN MORE NOTICEABLY, BEFORE FILLING UP ON TUESDAY.

ON THIS TRACK, GELENA SHOULD PASS AT A DISTANCE ABOUT 250KM IN THE NORTHEAST OF THE MAURITIUS ISLAND AT THE END OF THE MORNING, AND STHREATEN MORE PRECISELY RODRIGUES ISLAND, AT A DISTANCE WHICH HAVE TO BE DEFINE LATER, DURING THE NIGHT OF SATURDAY TO SUNDAY, BUT WHICH MAY PUT THE ISLAND UNDER THE DIRECT INFLUENCE OF THE METEOR.

THE INHABITANTS OF THESES ISLANDS ARE INVITED TO CLOSELY MONITOR THE PROGRESS OF GELENA THROUGH THE NEXT WARNINGS. THE CYCLONIC SWELL, GENERATED BY GELENA BUT ALSO BY FUNANI TRAVELLING FURTHER AWAY, IS ALSO TO BE TAKEN INTO ACCOUNT FOR ALL THE ISLANDS IN THE AREA.