Direction Interrégionale de Météo-France pour l'Océan Indien
50 Boulevard du Chaudron
97490 Sainte-Clotilde
Tél : 0262 92 11 00
Fax Exploitation : 0262 92 11 48
Fax Direction : 0262 92 11 47

WTIO30 FMEE 061231
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 6/9/20182019
1.A SEVERE TROPICAL STORM 9 (GELENA)

2.A POSITION 2019/02/06 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 12.4 S / 53.5 E
(TWELVE DECIMAL FOUR DEGREES SOUTH AND
FIFTY THREE DECIMAL FIVE DEGREES EAST)
MOVEMENT: SOUTH-EAST 2 KT

3.A DVORAK ANALYSIS: 4.0/4.0/D 1.5/18 H

4.A CENTRAL PRESSURE: 990 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT
RADIUS OF MAXIMUM WINDS (RMW): 37 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 190 SE: 140 SW: 140 NW: 190
34 KT NE: 140 SE: 110 SW: 110 NW: 140
48 KT NE: 50 SE: 50 SW: 50 NW: 50

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 600 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:
12H: 2019/02/07 00 UTC: 12.6 S / 53.6 E, VENT MAX= 065 KT, TROPICAL CYCLONE
24H: 2019/02/07 12 UTC: 13.2 S / 53.8 E, VENT MAX= 075 KT, TROPICAL CYCLONE
36H: 2019/02/08 00 UTC: 14.6 S / 54.8 E, VENT MAX= 085 KT, TROPICAL CYCLONE
48H: 2019/02/08 12 UTC: 16.3 S / 56.4 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE
60H: 2019/02/09 00 UTC: 18.2 S / 58.7 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE
72H: 2019/02/09 12 UTC: 19.7 S / 61.7 E, VENT MAX= 095 KT, INTENSE TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK:
96H: 2019/02/10 12 UTC: 22.1 S / 67.5 E, VENT MAX= 085 KT, TROPICAL CYCLONE
120H: 2019/02/11 12 UTC: 24.3 S / 72.2 E, VENT MAX= 065 KT, TROPICAL CYCLONE

2.C ADDITIONAL INFORMATION:
T=CI=4.0-

OVER THE LAST 6 HOURS, THE CURVED BAND FINISHED TO WRAP AROUND THE

CENTER AND FORMED A SMALL CDO. WITHIN THIS CDO, A RAGGED AND ILL-DEFINED EYE HAS BEEN SHOWN ON THE VIS IMAGERY, CORRESPONDING TO A TEMPORARY WARM SPOT ON THE IR IMAGES. THIS STRONG GAIN IN ORGANISATION INCREASED AGAIN THE AVAILABLE SUBJECTIVE AND OBJECTIVE DVORAK ESTIMATES. THE 1017Z AMSR2 MW IMAGES SHOW AN ALREADY STRONG AND STILL COMPACT INNER CORE. CONSEQUENTLY, THE SEVERE TROPICAL STORM STAGE IS REACHED.

GELENA HAS REMAINED QUASI-STATIONARY AS THE INFLUENCE OF THE WEAK LOW-LEVEL RIDGE LOCATED OVER MADAGASCAR, SOUTH OF THE SYSTEM, IS CLEARLY DECREASING. 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, 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 00Z EURO ENSEMBLE PREDICTION SHOWS WEAK DISPERSION AND SUGGESTS A BUNDLE OF TRACKS LOCATED A LITTLE FURTHER SOUTH FROM RODRIGUES THAN THE PREVIOUS RUNS.

THE SYSTEM IS NOW IN A FAVORABLE ENVIRONMENT FOR ITS DEVELOPMENT, WHICH WILL BECOME VERY FAVORABLE WITH THE INCREASE OF THE UPPER DIVERGENCE. A RAPID INTENSIFICATION PHASE IS LIKELY TO TRIGGER BY FRIDAY EVENING, ESPECIALLY WITH THE SMALL SIZE OF THE INNER CORE ALLOWING RAPID VARIATIONS OF THE INTENSITY. THEN, WITH THE STRENGTHENING OF A WESTERLY FLOW ALOFT FRIDAY, THE SYSTEM'S INTENSITY SHOULD REACH A PLATEAU FROM SATURDAY BEFORE BEGINNING A SLOW WEAKENING IN THE EVENING. 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 THE RELATIVELY CLOSE PASSAGE OF FUNANI.