

WTIO30 FMEE 131217

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 34/9/20182019

1.A MODERATE TROPICAL STORM 9 (GELENA)

2.A POSITION 2019/02/13 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 25.8 S / 77.5 E

(TWENTY FIVE DECIMAL EIGHT DEGREES SOUTH AND
SEVENTY SEVEN DECIMAL FIVE DEGREES EAST)

MOVEMENT: EAST-SOUTH-EAST 10 KT

3.A DVORAK ANALYSIS: 3.0/3.5/W 0.5/12 H

4.A CENTRAL PRESSURE: 990 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 45 KT

RADIUS OF MAXIMUM WINDS (RMW): 56 KM

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

28 KT NE: 260 SE: 190 SW: 110 NW: 200

34 KT NE: 150 SE: 190 SW: 110 NW: 130

48 KT NE: 80 SE: 70 SW: NW: 70

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 1100 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: NIL

1.B FORECASTS:

12H: 2019/02/14 00 UTC: 26.9 S / 80.9 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

24H: 2019/02/14 12 UTC: 28.0 S / 84.0 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

36H: 2019/02/15 00 UTC: 29.0 S / 86.4 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

48H: 2019/02/15 12 UTC: 30.7 S / 88.0 E, VENT MAX= 030 KT, POST-TROPICAL
DEPRESSION

60H: 2019/02/16 00 UTC: 33.5 S / 89.8 E, VENT MAX= 030 KT, POST-TROPICAL
DEPRESSION

72H: 2019/02/16 12 UTC: 35.2 S / 92.9 E, VENT MAX= 030 KT, POST-TROPICAL
DEPRESSION

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

FT=3.0- ;CI=3.5-

DEEP CONVECTION REMAINS LOCATED OVER THE SOUTHEASTERN QUADRANT DUE TO WESTERN VERTICAL WINDSHEAR. 1032Z 37 GHZ SSMIS MICRO-WAVE IMAGERY SHOWS A SLIGHTLY WEAKENING OF THE LOW LEVEL CIRCULATION. SO, THE SYSTEM IS DOWNGRADED INTO MODERATE TROPICAL STAGE.

GELENA IS NOW ACCELERATING EASTWARD TRACK EMBEDDED WITHIN DEEP WESTERLIES. THIS GENERAL TREND IS EXPECTED TO CONTINUE FOR THE NEXT 24 TO 36 HOURS. FRIDAY, GELENA WILL BE LOCATED AGAIN AHEAD OF A TROUGH ARRIVING FROM THE WEST AND ON THE SOUTH-WESTERN SIDE OF A NEW NEAR-EQUATORIAL RIDGE, WHICH SHOULD DRIVE A SOUTH-EASTWARD TURN. AVAILABLE NUMERICAL GUIDANCE REMAINS IN FAIRLY GOOD AGREEMENT IN THE TIMING AND SPEED OF THE FORECAST TRACK.

WESTERN VERTICAL WINDSHEAR IS EXPECTED TO INCREASE WITH THE ARRIVAL OF AN UPPER LEVEL SHORT WAVE WITHIN THE JETSTREAM IN THE SOUTH OF THE SYSTEM. THEREFORE, THE SYSTEM SHOULD CONTINUE TO WEAKEN SLOWLY. GELENA IS THEN EXPECTED TO START TO LOOSE TROPICAL CHARACTERISTICS ON THURSDAY INTERACTING WITH THE AFOREMENTIONED JET STREAM AND THE ASSOCIATED BAROCLINIC AREA.

THIS ADVISORY HAS BEEN PRODUCED IN COLLABORATION WITH RIVO RANRIANARISON FROM MADAGASCAR MET SERVICE AND ALLY MUSSA FROM TANZANIA METEOROLOGICAL AGENCY.