

WTIO30 FMEE 261225

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 16/6/20192020

1.A POST-TROPICAL DEPRESSION 6 (EX-DIANE)

2.A POSITION 2020/01/26 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 24.5 S / 69.2 E

(TWENTY FOUR DECIMAL FIVE DEGREES SOUTH AND
SIXTY NINE DECIMAL TWO DEGREES EAST)

MOVEMENT: EAST-NORTH-EAST 8 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 985 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 46 KM

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

28 KT NE: 320 SE: 650 SW: 650 NW: 170

34 KT NE: 190 SE: 240 SW: 240 NW: 110

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2020/01/27 00 UTC: 24.2 S / 69.8 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

24H: 2020/01/27 12 UTC: 25.2 S / 69.9 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

36H: 2020/01/28 00 UTC: 26.5 S / 69.5 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

48H: 2020/01/28 12 UTC: 28.5 S / 68.6 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

60H: 2020/01/29 00 UTC: 30.5 S / 67.1 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

72H: 2020/01/29 12 UTC: 32.9 S / 66.4 E, VENT MAX= 030 KT, POST-TROPICAL
DEPRESSION

2.B LONGER-RANGE OUTLOOK:

96H: 2020/01/30 12 UTC: 40.3 S / 66.3 E, VENT MAX= 030 KT, POST-TROPICAL
DEPRESSION

120H: 2020/01/31 12 UTC: 54.0 S / 70.9 E, VENT MAX= 030 KT, EXTRATROPICAL
DEPRESSION

2.C ADDITIONAL INFORMATION:

AT 1000UTC, THE SURFACE CIRCULATION CENTER APPEARED ON THE NORTHERN BORDER OF THE CONVECTION. OVER THE NEXT 2H, CONVECTION MOVED QUICKLY SOUTH-EASTWARDS TAKEN AWAY BY THE STRONG UPPER FLOW WHILE THE SURFACE CENTER REMAINED QUASI-STATIONNARY, BLOCKED BY THE LOW-LEVEL HIGH GEOPOTENTIALS IN THE SOUTH. A SPECTACULAR DECOUPLING OF THE MAIN CONVECTION OCCURRED. GIVEN THE PROXIMITY OF THE UPPER TROUGH AND THE LOW-LEVEL STRUCTURE, NOW VISIBLE ON SAT IMAGES, THE SYSTEM HAS ALREADY BEEN CLASSIFIED AS POST-TROPICAL.

IN TERMS OF TRACK FORECAST : EX-DIANE FINALLY STOPPED ON A HIGH PRESSURE CELL PASSING BY ON THE SOUTH. THIS CAUSES A GENERALLY NORTH-EASTWARD MOTION AS WELL AS A SIGNIFICANT UNCERTAINTY IN THE SHORT-TERM. TOMORROW MONDAY, WITH THE SHIFT OF THE HIGH, THE SYSTEM SHOULD BEGIN TO TRACK SOUTHWARD THEN SOUTHWESTWARDS, EVACUATING TOWARDS THE MID-LATITUDES. MODEL GUIDANCE IS IN RATHER GOOD AGREEMENT OVER THIS SCENARIO, ALTHOUGH THE FORECASTED MOTION SPEEDS VARY FROM ONE MODEL TO AN OTHER, INDUCING TIMING DIFFERENCES (ALONG-TRACK DIFFERENCES).

EX-DIANE WILL UNDERGO STRONG NORTH TO NORTH-WESTERLY WINDSHEAR OVER THE WHOLE FORECAST PERIOD, FUELED BY THE PASSAGE OF THREE CONSECUTIVE UPPER TROUGHS IN THE VICINITY OF THE SYSTEM. HOWEVER, BAROCLINIC PROCESSES AND THE STRONG PRESSURE GRADIENT BETWEEN THE SYSTEM'S CORE AND THE SUBTROPICAL HIGH SHOULD ALLOW DIANE TO WEAKEN RELATIVELY SLOWLY. THE AVAILABLE INTENSITY GUIDANCE IS IN RATHER GOOD AGREEMENT OVER THIS SCENARIO.