

WTIO30 FMEE 040720

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 17/6/20202021

1.A MODERATE TROPICAL STORM 6 (DANILO)

2.A POSITION 2021/01/04 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 14.7 S / 75.8 E

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

MOVEMENT: SOUTH-SOUTH-WEST 6 KT

3.A DVORAK ANALYSIS: 3.0/4.0/W 1.0/6 H

4.A CENTRAL PRESSURE: 995 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 405 SE: 335 SW: 370 NW: 465

34 KT NE: 75 SE: 75 SW: 75 NW: 75

48 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1004 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/01/04 18 UTC: 15.0 S / 76.0 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 425 SE: 380 SW: 390 NW: 350

24H: 2021/01/05 06 UTC: 15.4 S / 76.1 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 445 SE: 405 SW: 390 NW: 345

36H: 2021/01/05 18 UTC: 15.7 S / 75.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 455 SE: 435 SW: 390 NW: 335

48H: 2021/01/06 06 UTC: 15.8 S / 75.5 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 470 SE: 465 SW: 390 NW: 325

34 KT NE: 175 SE: 230 SW: 240 NW: 165

60H: 2021/01/06 18 UTC: 15.9 S / 74.1 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 480 SE: 490 SW: 390 NW: 315

34 KT NE: 195 SE: 250 SW: 270 NW: 165

72H: 2021/01/07 06 UTC: 16.0 S / 72.9 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

28 KT NE: 500 SE: 520 SW: 390 NW: 295

34 KT NE: 205 SE: 280 SW: 285 NW: 175

2.B LONGER-RANGE OUTLOOK:

96H: 2021/01/08 06 UTC: 16.0 S / 69.4 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 535 SE: 575 SW: 390 NW: 270

34 KT NE: 230 SE: 325 SW: 335 NW: 185

120H: 2021/01/09 06 UTC: 16.4 S / 64.8 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 575 SE: 630 SW: 390 NW: 240

34 KT NE: 270 SE: 370 SW: 380 NW: 185

48 KT NE: 70 SE: 120 SW: 130 NW: 90

2.C ADDITIONAL INFORMATION:

T=3.0 CI=4.0

IN THE LAST SIX HOURS, CONVECTIVE ACTIVITY NEAR DANILO'S CORE HAS DECREASED SIGNIFICANTLY. THE LATE NIGHT MICROWAVE SWATHS SHOWED THE CONTINUED DEGRADATION OF THE LOW LEVEL CIRCULATION (SSMIS 0120Z). THIS MORNING SCATTEROMETER SWATHS DID NOT SHOW WINDS ABOVE 35KT, EITHER ASCAT B AND C OR SCATSAT. THE SYSTEM ALSO SLOWED DOWN STRONGLY, WHICH IS CONSISTENT WITH A CHANGE IN THE DIRECTION OF THE FLOW AND THEREFORE A WEAKENING. CONSEQUENTLY THE SYSTEM WAS DOWNGRADED TO THE LOWER STAGE WITH A MAXIMUM INTENSITY OF 35KT.

UNDER THE INFLUENCE OF OPPOSING STEERING FLOWS: NORTHWESTERLY FLOW LINKED TO THE EQUATORIAL RIDGE AND SOUTHEASTERLY FLOW LINKED TO THE SUBTROPICAL RIDGE, THE LOW IS EXPECTED TO MOVE SLOWLY OVER THE NEXT 48H. FROM TUESDAY EVENING OR WEDNESDAY, FOLLOWING THE COLLAPSING OF THE EQUATORIAL RIDGE, DANILO SHOULD RESUME A GENERAL WESTERLY MOTION ON THE NORTHERN EDGE OF THE LOW TO MID-LEVELS SUBTROPICAL HIGHS.

IN TERMS OF INTENSITY, FORECAST IS STILL QUITE UNCERTAIN. THE WEAKENING OBSERVED OVERNIGHT DOES NOT SEEM RELATED TO A VERTICAL WIND SHEAR BUT RATHER TO THE DETRIMENTAL INFLUENCE OF THE SYSTEM 5 ROTATING AROUND DANILO CORE. TONIGHT VERTICAL WIND SHEAR IS EXPECTED TO INCREASE LIMITING THE CHANCE FOR RENEWED DEEPENING AT SHORT RANGE.

IN THE SECOND HALF OF THE WEEK, WITH THE ACCELERATION OF THE SYSTEM UNDER THE EFFECT OF THE SUBTROPICAL RIDGE, DANILO SHOULD REGAIN MORE FAVORABLE ENVIRONMENTAL. THIS SECOND DEEPENING WILL HOWEVER LIKELY DEPEND ON THE INTENSITY AND STRUCTURE BY THE BEGINNING OF THE NEW PHASE. LAST EUROPEAN GUIDANCE SUGGEST A POSSIBLE DISAPPEARANCE OF THE INNER CORE.