

WTIO30 FMEE 021906

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 11/6/20202021

1.A MODERATE TROPICAL STORM 6 (DANILO)

2.A POSITION 2021/01/02 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 11.1 S / 72.4 E

(ELEVEN DECIMAL ONE DEGREES SOUTH AND  
SEVENTY TWO DECIMAL FOUR DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 3 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 987 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): 43 KM

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

28 KT NE: 370 SE: 110 SW: 110 NW: 370

34 KT NE: 110 SE: 75 SW: 75 NW: 110

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/01/03 06 UTC: 12.0 S / 73.5 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 315 SE: 95 SW: 110 NW: 165

34 KT NE: 165 SE: 85 SW: 65 NW: 120

48 KT NE: 75 SE: 55 SW: 55 NW: 75

24H: 2021/01/03 18 UTC: 14.0 S / 75.2 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 260 SE: 150 SW: 95 NW: 100

34 KT NE: 130 SE: 130 SW: 55 NW: 85

36H: 2021/01/04 06 UTC: 15.2 S / 75.4 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

28 KT NE: 260 SE: 140 SW: 195 NW: 100

34 KT NE: 130 SE: 110 SW: 110 NW: 95

48H: 2021/01/04 18 UTC: 15.6 S / 75.2 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 230 SE: 165 SW: 215 NW: 110

34 KT NE: 110 SE: 140 SW: 120 NW: 95

60H: 2021/01/05 06 UTC: 16.0 S / 75.0 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 240 SE: 260 SW: 240 NW: 140

34 KT NE: 110 SE: 195 SW: 165 NW: 100

72H: 2021/01/05 18 UTC: 16.1 S / 74.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 280 SE: 285 SW: 315 NW: 215

34 KT NE: 130 SE: 215 SW: 215 NW: 130

48 KT NE: 85 SE: 85 SW: 100 NW: 75

#### 2.B LONGER-RANGE OUTLOOK:

96H: 2021/01/06 18 UTC: 16.3 S / 70.9 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 390 SE: 370 SW: 260 NW: 220

34 KT NE: 205 SE: 240 SW: 250 NW: 155

48 KT NE: 85 SE: 95 SW: 110 NW: 75

120H: 2021/01/07 18 UTC: 16.3 S / 66.6 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 405 SE: 415 SW: 295 NW: 205

34 KT NE: 220 SE: 285 SW: 285 NW: 155

48 KT NE: 80 SE: 100 SW: 120 NW: 70

64 KT NE: 70 SE: 60 SW: 60 NW: 60

#### 2.C ADDITIONAL INFORMATION:

T=CI=3.5-

DURING THE LAST 6 HOURS, THE CENTRAL DENSE OVERCAST PATTERN HAS BEEN MAINTAINED WITH HOWEVER A STRONG COOLING OF THE CLOUD TOPS. THE DVORAK ANALYSIS STILL LEAVES DANILO AT THE STAGE OF A MODERATE TROPICAL STORM, WHICH IS VALIDATED BY THE SCATSAT SWATH OF 1430UTC.

DANILO STARTED ITS SOUTHEASTWARD MOVEMENT AT A STILL WEAK PACE. OVER THE NEXT FEW HOURS, UNDER THE INFLUENCE OF A STRENGTHENING WEST-TO-NORTHWEST NEAR EQUATORIAL MID-TROPICAL FLOW, DANILO IS EXPECTED TO ACCELERATE SOUTHEASTWARD. WITH THE COLLAPSE OF CONVECTION, THE 05 SYSTEM WILL GRADUALLY DISAPPEAR UNDER THE EFFECT OF DANILO. FROM MONDAY ONWARDS, UNDER THE INFLUENCE OF OPPOSING DIRECTIONAL FLOWS: NORTHWEST FLOW RELATED TO THE EQUATORIAL RIDGE AND SOUTHEAST FLOW RELATED TO THE SUBTROPICAL RIDGE, DANILO WILL SLOW ITS TRACK. FROM TUESDAY, FOLLOWING THE DISAPPEARANCE OF THE EQUATORIAL RIDGE, DANILO COULD RESUME A GENERAL WESTERLY SHIFT ON THE NORTH FACE OF THE SUBTROPICAL HIGH GEOPOTENTIALS.

IN TERMS OF INTENSITY, THE SYSTEM IS EXPECTED TO STRENGTHEN SOMEWHAT FURTHER OVER THE NEXT 12 HOURS. THEN, DUE TO THE PRESENCE OF A MID-LEVELS NORTHWESTERLY CONSTRAINT ASSOCIATED WITH DRY AIR, DANILO SHOULD SHOW A SLIGHT WEAKENING. FOLLOWING THE FORECASTED TRACK, DANILO WILL PLACE ITSELF UNDER ENVIRONMENTAL CONDITIONS FAVORABLE TO A MORE MARKED INTENSIFICATION (LOW SHEAR BELOW THE HIGH RIDGE).

ALTHOUGH THE MAJORITY OF THE GUIDANCES START ON THIS SCENARIO OF A WESTWARD TRACK, THERE IS STILL UNCERTAINTY ABOUT THE POTENTIAL FOR INTENSIFICATION, WHICH COULD BE LESS DEPENDING ON THE LOCATION OF THE

HIGH RIDGE AND THE TIMING OF THE WESTWARD TURN.