

WTIO30 FMEE 090625

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/6/20222023

1.A MODERATE TROPICAL STORM 6 (DINGANI)

2.A POSITION 2023/02/09 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 16.6 S / 88.9 E

(SIXTEEN DECIMAL SIX DEGREES SOUTH AND  
EIGHTY EIGHT DECIMAL NINE DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 13 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 998 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 35 SE: 215 SW: 140 NW: 45

34 KT NE: 0 SE: 120 SW: 110 NW: 0

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

64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/02/09 18 UTC: 16.6 S / 87.0 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 120 SE: 260 SW: 220 NW: 120

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

24H: 2023/02/10 06 UTC: 16.6 S / 84.6 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 120 SE: 215 SW: 175 NW: 120

34 KT NE: 75 SE: 110 SW: 120 NW: 85

48 KT NE: 35 SE: 45 SW: 45 NW: 35

36H: 2023/02/10 18 UTC: 16.2 S / 82.2 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 130 SE: 215 SW: 175 NW: 140

34 KT NE: 85 SE: 110 SW: 130 NW: 85

48 KT NE: 35 SE: 45 SW: 45 NW: 55

48H: 2023/02/11 06 UTC: 16.0 S / 80.1 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 130 SE: 205 SW: 155 NW: 130

34 KT NE: 75 SE: 100 SW: 130 NW: 85

48 KT NE: 35 SE: 45 SW: 45 NW: 45

60H: 2023/02/11 18 UTC: 16.5 S / 78.2 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 140 SE: 215 SW: 155 NW: 140

34 KT NE: 75 SE: 110 SW: 120 NW: 85

48 KT NE: 45 SE: 55 SW: 45 NW: 65

64 KT NE: 30 SE: 30 SW: 30 NW: 30

72H: 2023/02/12 06 UTC: 17.3 S / 76.8 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 220 SW: 185 NW: 140

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

48 KT NE: 45 SE: 55 SW: 55 NW: 55

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

96H: 2023/02/13 06 UTC: 19.6 S / 74.2 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 185 SE: 285 SW: 220 NW: 155

34 KT NE: 100 SE: 165 SW: 150 NW: 100

48 KT NE: 65 SE: 55 SW: 65 NW: 65

120H: 2023/02/14 06 UTC: 21.0 S / 72.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 230 SE: 335 SW: 220 NW: 195

34 KT NE: 85 SE: 185 SW: 140 NW: 85

48 KT NE: 40 SE: 50 SW: 60 NW: 50

#### 2.C ADDITIONAL INFORMATION:

T=CI=3.0-

THE SYSTEM ENTERED THE BASIN DURING THE NIGHT FROM THE AUSTRALIAN AREA OF RESPONSIBILITY. THE SMAP AND SMOS PASSES OF 2330Z AND 0011Z SHOWED WINDS IN THE ORDER OF 35/40KT IN THE SOUTHERN SEMICIRCLE, CONFIRMED BY THE ASCAT DATA OF 0345. THE SYSTEM HAS THEREFORE BEEN NAMED DINGANI. THE SYSTEM IS UNDER A NORTHEAST STRESS, THE CENTER APPEARED TEMPORARILY EXPOSED TO THE NORTHEAST OF THE CONVECTION.

DURING THE NEXT THREE DAYS, THE SYSTEM WILL MOVE RAPIDLY OVERALL WESTWARD NORTH OF THE SUBTROPICAL RIDGE. FROM SUNDAY, A TROUGH APPROACHES FROM THE SOUTHWEST, WEAKENING THE RIDGE SOUTH OF THE SYSTEM, AND MAKING DINGANI CURVE TOWARDS THE SOUTHWEST WITH A PROGRESSIVE SLOWING OF THE TRAJECTORY.

ON THIS TRAJECTORY, A NORTHEASTERLY CONSTRAINT REMAINS PRESENT DURING THE WHOLE PERIOD, AS WELL AS A GOOD POLAR COAST DIVERGENCE. THE FAST MOVEMENT OF DINGANI UNTIL SATURDAY INCLUDED LIMITS THE INFLUENCE OF THE SHEAR ON THE INTENSIFICATION OF THE SYSTEM, ALLOWING IT TO REACH THE LOWER STAGE OF TROPICAL CYCLONE.

BEYOND SATURDAY, THE SHEAR SHOULD START TO WEAKEN THE SYSTEM. MOREOVER AT THE BEGINNING OF THE WEEK, THE ENERGETIC POTENTIAL SHOULD WEAKEN APPRECIABLY.

THE SYSTEM DOES NOT POSE A THREAT TO INHABITED LANDS.