

WTIO30 FMEE 121222

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 14/6/20222023

1.A TROPICAL CYCLONE 6 (DINGANI)

2.A POSITION 2023/02/12 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 17.3 S / 74.8 E

(SEVENTEEN DECIMAL THREE DEGREES SOUTH AND
SEVENTY FOUR DECIMAL EIGHT DEGREES EAST)

MOVEMENT: SOUTH-WEST 10 KT

3.A DVORAK ANALYSIS: 4.5/4.5/D 1.0/18 H

4.A CENTRAL PRESSURE: 978 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 65 KT

RADIUS OF MAXIMUM WINDS (RMW): 28 KM

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

28 KT NE: 130 SE: 185 SW: 185 NW: 130

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

48 KT NE: 55 SE: 65 SW: 60 NW: 55

64 KT NE: 35 SE: 35 SW: 35 NW: 35

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 1100 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/02/13 00 UTC: 18.3 S / 73.9 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 220 SW: 185 NW: 130

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

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

64 KT NE: 35 SE: 35 SW: 35 NW: 35

24H: 2023/02/13 12 UTC: 19.2 S / 73.2 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 185 SE: 230 SW: 195 NW: 140

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

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

64 KT NE: 35 SE: 35 SW: 35 NW: 35

36H: 2023/02/14 00 UTC: 20.3 S / 72.6 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 195 SE: 260 SW: 185 NW: 130

34 KT NE: 110 SE: 155 SW: 130 NW: 95

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

48H: 2023/02/14 12 UTC: 21.6 S / 72.0 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 205 SE: 280 SW: 185 NW: 150
34 KT NE: 110 SE: 175 SW: 140 NW: 95
48 KT NE: 45 SE: 65 SW: 75 NW: 45

60H: 2023/02/15 00 UTC: 24.2 S / 70.6 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 195 SE: 295 SW: 205 NW: 130
34 KT NE: 100 SE: 205 SW: 150 NW: 85

72H: 2023/02/15 12 UTC: 26.1 S / 68.2 E, VENT MAX= 040 KT, FILLING UP

28 KT NE: 220 SE: 280 SW: 185 NW: 150
34 KT NE: 110 SE: 205 SW: 150 NW: 100

2.B LONGER-RANGE OUTLOOK:

96H: 2023/02/16 12 UTC: 27.5 S / 64.9 E, VENT MAX= 030 KT, REMNANT LOW

28 KT NE: 155 SE: 155 SW: 185 NW: 95

2.C ADDITIONAL INFORMATION:

T=CI=4.5-

DURING THE LAST 6 HOURS, THE EYE CONFIGURATION OF DINGANI HAS BEEN CONSOLIDATED, BOTH ON VISIBLE AND INFRARED IMAGERY. IN ADDITION, THE AMSR2 MICROWAVE IMAGE FROM 0817Z ALSO SHOWS A WELL-DEFINED EYE, WITH DEEP CONVECTION AROUND THE CENTER. IN AGREEMENT WITH THE AVAILABLE SUBJECTIVE AND OBJECTIVE ANALYSES, DINGANI IS THEREFORE CLASSIFIED AS A TROPICAL CYCLONE WITH WINDS OF 65KT.

THE SYSTEM CONTINUES ITS SOUTH-WESTERN TRACK IN CONNECTION WITH THE EASTWARD RETREAT OF THE SUBTROPICAL RIDGE. AT THE BEGINNING OF NEXT WEEK, THE WEAKENING OF THE SYSTEM WILL BE ACCOMPANIED BY THE DESCENT OF THE LEVEL OF THE STEERING FLOW WITH A STRONGER ZONAL COMPONENT. HOWEVER, FROM TUESDAY ONWARDS, THE EUROPEAN AND AMERICAN DETERMINIST AND ENSEMBLE MODELS DIVERGE. THE U.S. TREND SUGGESTS A FASTER SLOWDOWN AND WEAKENING, WHILE THE EUROPEAN TREND SUGGESTS A FASTER MOVE SOUTH AND A SLOWER WEAKENING. EVEN THOUGH THE U.S. ENSEMBLE IS TRENDING CLOSER TO THE EUROPEAN ENSEMBLE, THERE IS STILL UNCERTAINTY ABOUT THE TRACK. THE RSMC TRACK FOLLOWS A MEDIUM SCENARIO, BUT GIVES MORE WEIGHT TO THE EUROPEAN EPS, WHICH SEEMS MORE STABLE AND LESS DISTRIBUTED THAN THE AMERICAN.

THE ENVIRONMENT OF DINGANI SHOULD REMAIN FAVORABLE IN THE NEXT FEW HOURS WITH THE DECREASE OF THE NORTHEAST SHEAR AND A STRENGTHENING OF THE POLAR UPPER LEVEL DIVERGENCE. THESE FAVORABLE CONDITIONS ARE MAINTAINED DURING THE NEXT NIGHT AND THE SYSTEM SHOULD REACH ITS MAXIMUM INTENSITY. THEN DURING THE DAY TOMORROW, A NORTH-WESTERLY SHEAR WILL SET UP, PROGRESSIVELY ACCOMPANIED BY DRY INTRUSIONS. THESE HOSTILE ATMOSPHERIC CONDITIONS, WHICH WILL LAST FOR THE REST OF THE WEEK, ARE COUPLED WITH A DECREASING OCEANIC POTENTIAL. IN THIS UNFAVORABLE ENVIRONMENT, DINGANI SHOULD WEAKEN FROM TOMORROW AND START TO FILL IN MID-WEEK BEFORE BECOMING A RESIDUAL DEPRESSION POSSIBLY ON THURSDAY OR FRIDAY. THERE ARE NEVERTHELESS SCENARIOS (IFS IN

PARTICULAR) WHICH LIMIT THE DECREASE IN INTENSITY AND SOME SOMETIMES PROPOSE A NEW INTENSIFICATION IN CONNECTION WITH A BAROCLINIC ENVIRONMENT. HOWEVER, THESE SCENARIOS ARE NOT PRIVILEGED AND THE PRESENT FORECAST DOES NOT TAKE THEM INTO ACCOUNT.

THERE IS NO THREAT TO INHABITED LANDS.