

WTIO30 FMEE 260713

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 4/4/20232024

1.A INTENSE TROPICAL CYCLONE 4 (ANGGREK)

2.A POSITION 2024/01/26 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 16.8 S / 86.4 E

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

MOVEMENT: WEST-SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 5.5/5.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 957 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 90 KT

RADIUS OF MAXIMUM WINDS (RMW): 24 KM

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

28 KT NE: 175 SE: 280 SW: 260 NW: 140

34 KT NE: 85 SE: 110 SW: 100 NW: 85

48 KT NE: 55 SE: 65 SW: 60 NW: 45

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2024/01/26 18 UTC: 18.1 S / 84.0 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 130 SE: 220 SW: 185 NW: 110

34 KT NE: 85 SE: 120 SW: 95 NW: 75

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

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

24H: 2024/01/27 06 UTC: 18.8 S / 81.4 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 130 SE: 230 SW: 220 NW: 120

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

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

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

36H: 2024/01/27 18 UTC: 19.3 S / 78.7 E, VENT MAX= 090 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 140 SE: 215 SW: 215 NW: 110

34 KT NE: 85 SE: 110 SW: 100 NW: 75

48 KT NE: 55 SE: 65 SW: 65 NW: 45
64 KT NE: 45 SE: 45 SW: 45 NW: 35

48H: 2024/01/28 06 UTC: 19.9 S / 75.8 E, VENT MAX= 085 KT, TROPICAL CYCLONE
28 KT NE: 150 SE: 220 SW: 220 NW: 120
34 KT NE: 85 SE: 120 SW: 100 NW: 65
48 KT NE: 55 SE: 65 SW: 65 NW: 45
64 KT NE: 45 SE: 35 SW: 45 NW: 35

60H: 2024/01/28 18 UTC: 21.1 S / 72.8 E, VENT MAX= 085 KT, TROPICAL CYCLONE
28 KT NE: 150 SE: 220 SW: 185 NW: 120
34 KT NE: 75 SE: 120 SW: 95 NW: 75
48 KT NE: 45 SE: 65 SW: 65 NW: 45
64 KT NE: 35 SE: 35 SW: 45 NW: 35

72H: 2024/01/29 06 UTC: 23.2 S / 70.4 E, VENT MAX= 080 KT, TROPICAL CYCLONE
28 KT NE: 175 SE: 205 SW: 165 NW: 120
34 KT NE: 85 SE: 110 SW: 85 NW: 65
48 KT NE: 45 SE: 65 SW: 65 NW: 45
64 KT NE: 35 SE: 35 SW: 35 NW: 35

2.B LONGER-RANGE OUTLOOK:

96H: 2024/01/30 06 UTC: 27.1 S / 69.0 E, VENT MAX= 065 KT, TROPICAL CYCLONE
28 KT NE: 280 SE: 380 SW: 325 NW: 205
34 KT NE: 150 SE: 230 SW: 205 NW: 120
48 KT NE: 75 SE: 100 SW: 95 NW: 75
64 KT NE: 65 SE: 75 SW: 65 NW: 55

120H: 2024/01/31 06 UTC: 28.7 S / 69.5 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM
28 KT NE: 295 SE: 400 SW: 335 NW: 215
34 KT NE: 155 SE: 250 SW: 215 NW: 130

2.C ADDITIONAL INFORMATION:

T=CI=5.5-

OVER THE LAST 6 HOURS, THE EYE CONFIGURATION HAS BEEN MAINTAINED AND THE CENTER HAS BECOME CLEARLY VISIBLE ON THE IR SATELLITE IMAGE. THE 11:41 PM SAR ALLOWED US TO DETERMINE THE EXTENT OF THE WINDS AND THE MAXIMUM WIND RADIUS, WHICH IS 13NM. THE COLOR COMPOSITE IMAGE FROM THE METOP C POLAR-ORBITING SATELLITE AT 03:34 CONFIRMS THIS VALUE. IT ALSO GIVES A GOOD ESTIMATE OF THE EXTENT OF CONVECTION, WHOSE ORGANIZATION AROUND THE CENTER HAS IMPROVED OVER THE PAST 24 HOURS. THE IR AND HRV SATELLITE IMAGES ALSO SHOW A FINE DIVERGENCE IN ALTITUDE. THE DVORAK EYE ANALYSIS OVER A 6-HOUR PERIOD SHOWS AN INTENSIFICATION, WITH WIND VALUES ESTIMATED AT 90KT. OBJECTIVE ANALYSES ARE CONSISTENT WITH THIS INTENSITY, CONFIRMING ANGGREK'S TRANSITION TO AN INTENSE TROPICAL CYCLONE.

NO CHANGE IN TRACK FORECAST. AS A MATURE SYSTEM, ANGGREK IS STEERED BY UPPER TROPOSPHERIC FLOWS, DRIVEN BY A SUBTROPICAL RIDGE TO THE SOUTH OF THE SYSTEM. AS THE RIDGE SWELLS SLIGHTLY OVER THE NEXT 24-36 HOURS,

THE TRACK SHOULD STRAIGHTEN OUT SLIGHTLY TO THE WEST. FROM SUNDAY ONWARDS, THE RIDGE WILL RETREAT EASTWARDS, PUSHING THE SYSTEM FURTHER SOUTHWEST. BY THE END OF THE PERIOD, THE SYSTEM IS LIKELY TO TAKE A MORE SOUTHWARD OR EVEN SLIGHTLY SOUTHEASTWARD TRAJECTORY, WHILE THE RIDGE OF HIGH PRESSURE CONTINUES TO SHIFT EASTWARDS. WITH THE DIRECTING FLOW WELL DEFINED, CONFIDENCE IS RELATIVELY GOOD IN DIRECTION, ALTHOUGH THERE IS GREATER UNCERTAINTY OVER THE SPEED AT WHICH IT WILL MOVE.

TROPICAL CYCLONE ANGGREK IS BENEFITING FROM EXCELLENT ENVIRONMENTAL CONDITIONS, WHICH HAVE ENABLED IT TO UPGRADE TO AN INTENSE TROPICAL CYCLONE THIS MORNING. IT IS EXPECTED TO REMAIN AT THIS STAGE UNTIL SATURDAY. IT WILL THEN RETURN TO THE TROPICAL CYCLONE STAGE ON SUNDAY DUE TO A SLIGHT UPPER-LEVEL SHEAR STRESS, THE EFFICIENCY OF WHICH IS COUNTERBALANCED BY THE SYSTEM'S RAPID WESTWARD MOVEMENT. EARLY NEXT WEEK ANGGREK SHOULD ENTER A MORE OR LESS RAPID PHASE OF WEAKENING, DUE TO LESS AND LESS ENERGETIC SURFACE WATERS AND, ABOVE ALL, TO A PERSISTENT STRONG UPPER-LEVEL SHEAR, GRADUALLY BECOMING CROSS-CUTTING.

TROPICAL CYCLONE ANGGREK POSES NO THREAT TO INHABITED LAND.