

WTIO30 FMEE 041240

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 23/1/20232024

1.A POST-TROPICAL DEPRESSION 1 (ALVARO)

2.A POSITION 2024/01/04 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 29.0 S / 57.3 E

(TWENTY NINE DECIMAL ZERO DEGREES SOUTH AND
FIFTY SEVEN DECIMAL THREE DEGREES EAST)

MOVEMENT: SOUTH-EAST 18 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 989 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 370 SE: 480 SW: 315 NW: 280

34 KT NE: 240 SE: 350 SW: 240 NW: 165

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2024/01/05 00 UTC: 30.4 S / 60.0 E, VENT MAX= 040 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 390 SE: 500 SW: 350 NW: 280

34 KT NE: 240 SE: 370 SW: 260 NW: 155

24H: 2024/01/05 12 UTC: 30.6 S / 62.2 E, VENT MAX= 035 KT, POST-TROPICAL
DEPRESSION

28 KT NE: 405 SE: 535 SW: 390 NW: 295

34 KT NE: 165 SE: 405 SW: 280 NW: 0

36H: 2024/01/06 00 UTC: 30.4 S / 63.4 E, VENT MAX= 030 KT, FILLING UP

28 KT NE: 0 SE: 535 SW: 405 NW: 0

48H: 2024/01/06 12 UTC: 30.1 S / 64.4 E, VENT MAX= 030 KT, FILLING UP

28 KT NE: 0 SE: 520 SW: 445 NW: 0

60H: 2024/01/07 00 UTC: 29.5 S / 65.1 E, VENT MAX= 025 KT, FILLING UP

72H: 2024/01/07 12 UTC: 28.7 S / 65.5 E, VENT MAX= 025 KT, FILLING UP

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

OVER THE PAST 6 HOURS, POST-TROPICAL DEPRESSION ALVARO HAS KEPT A TYPICAL ASYMMETRICAL AND HIGHLY SHEARED STRUCTURE, WITH AN EXPOSED CENTER, DEEP CONVECTION DISPLACED MORE THAN 100MN SOUTHEAST OF THE CENTER AND A VAST CIRRUS PLUME STRETCHING ALONG THE SUBTROPICAL WEST-NORTHWESTERLY JETSTREAM'S FLOW. BUOY OBSERVATIONS (ESPECIALLY 989.9HPA ON BUOY 1601656 AT 11UTC VERY CLOSE TO THE CENTER) HAVE ENABLED TO READJUST THE CENTRAL PRESSURE ESTIMATE TO 989HPA AT 12UTC, DEEPER THAN INITIALLY ESTIMATED. THIS REFLECTS THE ONGOING BAROCLINIC INTERACTION, WHICH MAINTAINS A FAIRLY INTENSE VORTEX DESPITE THE COOLER UNDERLYING WATERS, NEAR 23-24C. MAXIMUM WINDS ARE STILL ESTIMATED AT 45KT.

ALVARO'S TRACK IS STILL BEING STEERED BY THE RIDGE BUILDING NORTH OF THE MASCAREIGNES, WHICH FAVORS A RAPID SOUTHEASTWARD MOVEMENT IN THE SHORT TERM. THIS MOVEMENT WILL SLOW DOWN FROM FRIDAY DUE TO THE ADDITIONAL CONTRADICTORY INFLUENCE OF A LOW-LEVEL SUBTROPICAL RIDGE TO THE SOUTH-WEST OF THE SYSTEM. THE RESULTING STEERING FLOW WILL MAKE THE REMNANT VORTEX SLOWLY DRIFT EASTWARD THEN NORTHEASTWARD BY THIS WEEKEND, WHILE REMAINING CLOSE TO THE 30TH PARALLEL.

ALVARO HAS TEMPORARILY INTENSIFIED THIS THURSDAY THANKS TO BAROCLINIC PROCESSES DRIVEN BY THE SUBTROPICAL JETSTREAM DYNAMICS. THIS INTERACTION SHOULD DECREASE FROM FRIDAY ONWARDS, LEAVING THE REMNANT LOW SLOWLY FILL UP IN THE FOLLOWING DAYS OVER 22-23 DEGREES SURFACE WATERS.

THE SYSTEM NO LONGER POSES ANY THREAT TO INHABITED LANDS.

LAST BULLETIN UNLESS RE-INTENSIFICATION ISSUED BY RSMC LA REUNION REGARDS THIS SYSTEM. FURTHER INFORMATION ON THIS SYSTEM WILL BE AVAILABLE IN THE DAILY BULLETIN ON TROPICAL WEATHER CONDITIONS OVER THE SOUTHWEST INDIAN OCEAN ISSUED AT 12Z (AWIO20 FMEE).