

WTIO30 FMEE 071256

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 4/13/20212022

1.A MODERATE TROPICAL STORM 13 (KARIM)

2.A POSITION 2022/05/07 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 8.4 S / 90.1 E  
(EIGHT DECIMAL FOUR DEGREES SOUTH AND  
NINETY DECIMAL ONE DEGREES EAST)

MOVEMENT: SOUTH-EAST 7 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 0.5/12 H

4.A CENTRAL PRESSURE: 994 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: 165 SE: 110 SW: 0 NW: 150  
34 KT NE: 95 SE: 0 SW: 0 NW: 95

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2022/05/08 00 UTC: 9.6 S / 90.5 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

28 KT NE: 220 SE: 435 SW: 295 NW: 250  
34 KT NE: 155 SE: 185 SW: 150 NW: 185

24H: 2022/05/08 12 UTC: 10.7 S / 91.0 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 230 SE: 380 SW: 285 NW: 260  
34 KT NE: 165 SE: 155 SW: 150 NW: 175  
48 KT NE: 65 SE: 65 SW: 95 NW: 35

36H: 2022/05/09 00 UTC: 11.9 S / 91.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 215 SE: 335 SW: 270 NW: 165  
34 KT NE: 150 SE: 130 SW: 95 NW: 130  
48 KT NE: 65 SE: 55 SW: 65 NW: 35

48H: 2022/05/09 12 UTC: 13.3 S / 91.7 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 165 SE: 360 SW: 155 NW: 175  
34 KT NE: 110 SE: 150 SW: 75 NW: 120  
48 KT NE: 45 SE: 45 SW: 55 NW: 35

60H: 2022/05/10 00 UTC: 15.7 S / 92.1 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM  
28 KT NE: 185 SE: 280 SW: 230 NW: 130  
34 KT NE: 120 SE: 100 SW: 0 NW: 100

72H: 2022/05/10 12 UTC: 18.0 S / 92.8 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM  
28 KT NE: 215 SE: 240 SW: 270 NW: 155  
34 KT NE: 130 SE: 95 SW: 0 NW: 110

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

96H: 2022/05/11 12 UTC: 19.8 S / 96.5 E, VENT MAX= 040 KT, REMNANT LOW  
28 KT NE: 130 SE: 185 SW: 185 NW: 150  
34 KT NE: 95 SE: 150 SW: 150 NW: 95

120H: 2022/05/12 12 UTC: 18.4 S / 94.9 E, VENT MAX= 030 KT, REMNANT LOW  
28 KT NE: 0 SE: 95 SW: 95 NW: 0

#### 2.C ADDITIONAL INFORMATION:

T=CI=3.0-

DURING THE LAST 6 HOURS, THE CLOUD PATTERN OF TROPICAL STORM KARIM HAS CONTINUED TO ORGANIZE. THE CENTER, IN A FIRST TIME EXPOSED, WENT UNDER THE MAIN CONVECTION WITH THE DECREASE OF THE SHEAR. THE SSMIS MICROWAVE IMAGES FROM 0959Z CONFIRM THIS AMELIORATION. MOREOVER THE DVORAK ANALYSIS IS ESTIMATED AT 3.0. THE MAXIMUM WINDS ARE THEREFORE HIGH AT 40KT.

KARIM IS CURRENTLY AT THE LIMIT OF THE RESPONSIBILITY ZONE OF THE CMRS OF THE REUNION BUT SHOULD FOLLOW A SOUTH-EASTWARD TRACK FOR THE NEXT FEW DAYS, BOTH UNDER THE DYNAMICS OF THE EQUATORIAL WESTERLY WIND BURST AND ON THE EDGE OF A RIDGE LOCATED TO THE EAST OF THE SYSTEM, THEN ALSO ATTRACTED BY A MID-TROPOSPHERIC TROUGH APPROACHING FROM THE SOUTHWEST FROM MONDAY. FROM TUESDAY, THERE IS SOME DISPERSION AMONG AVAILABLE MODEL OUTPUT, THE FUTURE TRACK DEPENDING ON HOW INTENSE THE SYSTEM WILL BE AT THIS TIME AND BECAUSE OF POTENTIALLY CONTRADICTORY STEERING FLOWS : THE SYSTEM COULD BE EITHER DRIVEN SOUTH-EASTWARDS BY THE MID-TROPOSPHERIC TROUGH (IF THE SYSTEM KEEPS GOOD INTENSITY) OR MOVE BACK NORTHWESTWARDS THEN WESTWARDS ON THE NORTHERN SIDE OF A SUBTROPICAL LOW-TROPOSPHERE HIGH (IF THE SYSTEM WEAKENS). THE CMRS TRACK IS REVISED SLIGHTLY EASTERN THAN THE PREVIOUS ONE, RELYING MORE ON THE IFS MODEL WHICH BETTER LOCATED THE POSITION AT ANALYSIS. THE SYSTEM SHOULD ENTER THE AUSTRALIAN ZONE OF RESPONSIBILITY, EAST OF 90°, DURING NEXT NIGHT OR EARLY SUNDAY MORNING, BUT WITH A TIMING STILL UNCERTAIN.

IN TERMS OF INTENSITY, THE SYSTEM BENEFITS FROM A RELATIVELY CONDUCTIVE ENVIRONMENT IN THE SHORT-TERM DEVELOPMENT. WITH ITS SOUTHEASTWARD MOVEMENT, VERTICAL WIND SHEAR SHOULD EASE A BIT THIS SATURDAY. WITH VERY GOOD UPPER DIVERGENCE (SOUTHWARD OUTFLOW CHANNEL), A SUFFICIENTLY HUMID ENVIRONMENT AND GOOD SURFACE CONVERGENCE, KARIM SHOULD CONTINUE TO INTENSIFY IN THE NEXT FEW HOURS AND POSSIBLY REACH

THE STAGE OF A STRONG TROPICAL STORM BETWEEN SUNDAY AND MONDAY. FROM TUESDAY, INCREASING NORTH-WESTERLY SHEAR AND MID-LEVEL DRY AIR INTRUSION, RELATED TO THE APPROACH OF A TROUGH TO THE SOUTHWEST OF THE SYSTEM, SHOULD WEAKEN IT.

THIS SYSTEM DOES NOT POSE ANY THREAT TO INHABITED LANDS.

THIS IS THE LAST BULLETIN ISSUED BY THE CMRS OF THE REUNION CONCERNING THIS SYSTEM. IT WILL NOW BE FOLLOWED BY THE CMRS IN PERTH, AUSTRALIA.