Direction Interrégionale de Météo-France pour l'Océan Indien
50 Boulevard du Chaudron
97490 Sainte-Clotilde
Tél : 0262 92 11 00
Fax Exploitation : 0262 92 11 48
Fax Direction : 0262 92 11 47

WTIO30 FMEE 061840
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/13/20212022
1.A ZONE OF DISTURBED WEATHER 13

2.A POSITION 2022/05/06 AT 1800 UTC:
WITHIN 30 NM RADIUS OF POINT 7.5 S / 88.7 E
(SEVEN DECIMAL FIVE DEGREES SOUTH AND
EIGHTY EIGHT DECIMAL SEVEN DEGREES EAST)
MOVEMENT: SOUTH-SOUTH-EAST 8 KT

3.A DVORAK ANALYSIS: 1.5/1.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 1002 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 25 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

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

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 900 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):
12H: 2022/05/07 06 UTC: 8.8 S / 88.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 0 SE: 305 SW: 0 NW: 305

24H: 2022/05/07 18 UTC: 10.1 S / 89.1 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 150 SE: 370 SW: 230 NW: 360
34 KT NE: 100 SE: 260 SW: 155 NW: 230

36H: 2022/05/08 06 UTC: 10.8 S / 89.4 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 120 SE: 425 SW: 250 NW: 345
34 KT NE: 95 SE: 285 SW: 165 NW: 220

48H: 2022/05/08 18 UTC: 11.5 S / 89.9 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 130 SE: 305 SW: 110 NW: 140
34 KT NE: 95 SE: 205 SW: 85 NW: 95
48 KT NE: 45 SE: 35 SW: 65 NW: 35

60H: 2022/05/09 06 UTC: 12.7 S / 90.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 155 SE: 195 SW: 130 NW: 165
34 KT NE: 110 SE: 130 SW: 85 NW: 120

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

72H: 2022/05/09 18 UTC: 14.4 S / 90.9 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 130 SE: 285 SW: 205 NW: 285
34 KT NE: 95 SE: 195 SW: 140 NW: 195

2.B LONGER-RANGE OUTLOOK:
96H: 2022/05/10 18 UTC: 16.8 S / 92.6 E, VENT MAX= 035 KT, REMNANT LOW
28 KT NE: 0 SE: 370 SW: 150 NW: 280
34 KT NE: 0 SE: 250 SW: 165 NW: 185

120H: 2022/05/11 18 UTC: 16.5 S / 92.9 E, VENT MAX= 030 KT, FILLING UP
28 KT NE: 0 SE: 230 SW: 230 NW: 260

2.C ADDITIONAL INFORMATION:
T=CI=1.5

A CLOCKWISE CIRCULATION HAS DEVELOPED SINCE THURSDAY OVER THE NORTHEAST OF THE BASIN, DRIVEN BY AN EQUATORIAL WESTERLY WIND BURST TRIGGERED BY VARIOUS EQUATORIAL WAVES CROSSING EACH OTHER OVER THE EASTERN INDIAN OCEAN (MJO, EQUATORIAL ROSSBY WAVE AND KELVIN WAVE), WHICH, BY THE WAY, HAS ALSO GIVEN BIRTH TO ANOTHER SYMMETRIC TWIN VORTEX IN THE NORTHERN HEMISPHERE.
SATELLITE IMAGERY SHOWS ACTIVE AND PERSISTENT CONVECTION SINCE THURSDAY NIGHT IN THE CLOSE WESTERN AND SOUTHERN PERIPHERY OF THE SYSTEM'S CENTER, WHICH HASN'T ALWAYS BEEN EASY TO LOCATE PRECISELY DUE TO AN WEST-TO-EAST ELONGATED CIRCULATION, AS SHOWN BY THE VARIOUS ASCAT PASSES. THESE HAVE ALSO INDICATED MAXIMUM WINDS NEAR 25KT AND EVEN LOCALLY 30KT UNDER CONVECTION OR IN THE EQUATORIAL WESTERLY WINDS SURGE ON THE NORTHERN MARGIN OF THE LOW. IN CONNECTION WITH ITS STILL ELONGATED STRUCTURE AND THE ASYMMETRICAL ORGANIZATION OF CONVECTION, THIS SYSTEM IS THEREFORE CLASSIFIED AS A ZONE OF DISTURBED WEATHER WITH MAXIMUM REPRESENTATIVE WINDS OF 25KT, EVEN IF THE STAGE OF NEAR-GALE FORCE WINDS CAN BE REACHED VERY LOCALLY.

THIS SYSTEM SHOULD FOLLOW A SOUTHWARDS THEN SOUTH-SOUTH-EASTWARDS TRACK FOR THE NEXT DAYS, TRACKING MORE OR LESS ALONG THE EASTERN BORDER OF THE BASIN (90E MERIDIAN), BOTH UNDER THE INITIAL IMPULSE OF THE DYNAMICS OF THE WESTERLY WIND BURST AND ON THE EDGE OF A RIDGE TO THE EAST OF THE SYSTEM, THEN ALSO DRAWN BY A MID-TROPOSPHERIC TROUGH APPROACHING FROM THE SOUTHWEST FROM MONDAY. FROM TUESDAY, THERE IS A STRONG DISPERSION AMONG AVAILABLE MODEL OUTPUT, THE FUTURE TRACK DEPENDING ON THE INTENSITY THE SYSTEM WILL HAVE 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). ACCORDING TO THE MEDIAN TRACK FOLLOWED BY THE RSMC, THE SYSTEM SHOULD STEP INTO THE AUSTRALIAN AREA OF RESPONSIBILITY, EAST OF 90E, BETWEEN SUNDAY NIGHT AND MONDAY.

IN TERMS OF INTENSITY, THE SYSTEM BENEFITS FROM RELATIVELY CONDUCIVE CONDITIONS FOR ITS SHORT-TERM DEVELOPMENT. ITS IMMEDIATE DEVELOPMENT IS RESTRICTED BY THE PRESENCE OF A SHEARED CONSTRAINT FROM EAST TO NORTHEAST WHICH PREVENTS THE CONVECTION FROM PHASING WITH THE LOW LEVEL VORTICITY. BUT WITH THE SOUTHWARDS MOVEMENT, VERTICAL WIND SHEAR SHOULD DECREASE ON SATURDAY, WHICH, WITH VERY GOOD UPPER DIVERGENCE (SOUTHWARD OUTFLOW CHANNEL), A SUFFICIENTLY HUMID ENVIRONMENT AND GOOD SURFACE CONVERGENCE, SHOULD ALLOW TO REACH THE STAGE OF MODERATE TROPICAL STORM THIS SATURDAY, AND PROBABLY SEVERE TROPICAL STORM BETWEEN SUNDAY AND MONDAY. FROM TUESDAY, INCREASING NORTH-WESTERLY SHEAR AND 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.