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 041336
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/14/20202021
1.A TROPICAL DISTURBANCE 14

2.A POSITION 2021/03/04 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 16.7 S / 41.8 E
(SIXTEEN DECIMAL SEVEN DEGREES SOUTH AND
FORTY ONE DECIMAL EIGHT DEGREES EAST)
MOVEMENT: EAST 10 KT

3.A DVORAK ANALYSIS: 2.0/2.0/D 0.0/6 H

4.A CENTRAL PRESSURE: 1003 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 / 600 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):
12H: 2021/03/05 00 UTC: 17.9 S / 43.0 E, VENT MAX= 025 KT, TROPICAL DEPRESSION

24H: 2021/03/05 12 UTC: 18.6 S / 44.2 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

36H: 2021/03/06 00 UTC: 19.8 S / 47.7 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

48H: 2021/03/06 12 UTC: 20.8 S / 50.6 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 120 SE: 0 SW: 0 NW: 0

60H: 2021/03/07 00 UTC: 22.1 S / 53.2 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM
28 KT NE: 335 SE: 0 SW: 0 NW: 130
34 KT NE: 165 SE: 0 SW: 0 NW: 95

72H: 2021/03/07 12 UTC: 23.6 S / 55.7 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 260 SE: 130 SW: 130 NW: 150
34 KT NE: 165 SE: 95 SW: 95 NW: 95

2.B LONGER-RANGE OUTLOOK:
96H: 2021/03/08 12 UTC: 27.5 S / 60.4 E, VENT MAX= 025 KT, TROPICAL DISTURBANCE

120H: 2021/03/09 12 UTC: 30.4 S / 61.8 E, VENT MAX= 025 KT, TROPICAL DISTURBANCE

2.C ADDITIONAL INFORMATION:
T=CI=2.0

IN THE LAST 6 HOURS, THE SYSTEM IS BEGINNING TO SHOW SIGNS OF ORGANIZATION, WITH AREAS OF STRONG CONVECTION IN ITS NORTHERN PART IN THE MONSOON FLOW, AND IN ITS SOUTHERN PART. THE LOW LAYER CIRCULATION HAS THEREFORE IMPROVED VERY SLIGHTLY, AROUND A CENTER WHICH IS STILL RATHER WIDE AND POORLY DEFINED, ACCORDING TO THE 0330Z HY-2B SWATH. THE 1033Z AMSR-2 MICROWAVE IMAGE ALSO SHOWS A RATHER WEAK INTERNAL STRUCTURE NOT SUFFICIENTLY ORGANIZED. THE PARTIAL 0630Z ASCAT-C DATA SHOWS AVERAGE WINDS OF ABOUT 25KT IN THE NORTHEAST SEMICIRCLE.

DURING THE NEXT 24 HOURS, THE SYSTEM 14-202021, DRIVEN BY THE MONSOON FLOW, WILL CONTINUE ITS MOVEMENT IN AN EAST-SOUTHEASTERLY DIRECTION AND FINALLY LAND ON THE MALAGASY WEST COAST, SOUTH OF THE MELAKY DISTRICT. THE SYSTEM SHOULD THEN EMERGE ON THE MALAGASY EAST COAST IN SATURDAY MORNING AND THEN TRACKS TOWARDS THE SOUTHEAST, ON THE WESTERN SIDEOF A SUBTROPICAL RIDGE LOCATED FURTHER EAST OF THE DOMAIN, COMBINED WITH A WELL ESTABLISHED MONSOON FLOW. AT THE END OF THE WEEKEND, BEGINNING OF NEXT WEEK, THE SYSTEM IS PICKED UP BY A MID-LATITUDE TROUGH, WITH A NORTH-WESTERLY FLOW AND EVACUATES TOWARDS THE MID-LATITUDES.

IN TERMS OF INTENSITY, THIS SYSTEM BENEFITS FROM MIXED ENVIRONMENTAL CONDITIONS. ALTHOUGH HAVING A SUFFICIENT OCEANIC POTENTIAL, THE LOW LAYER CONVERGENCE IS UNBALANCED: ONLY THE MONSOON FLOW MANAGES TO CONVERGE IN THE HEART OF THE SYSTEM. AT HIGH ALTITUDE, THERE IS A SLIGHT WESTERLY CONSTRAINT, ALLOWING DRY AIR INTRUSION IN THE WESTERN PART OF THE SYSTEM. ALSO, THE SYSTEM SHOULD LAND ON THE MALAGASY WEST COAST AT A STAGE OF LOW INTENSITY. ON SATURDAY MORNING, THE SYSTEM WILL EMERGE ON THE EAST COAST OF MADAGASCAR, AND SHOULD ENCOUNTER A SHORT PERIOD OF INTENSIFICATION THANKS TO GOOD ENVIRONMENTAL CONDITIONS. FROM THE BEGINNING OF NEXT WEEK, DUE TO A LOWER OCEANIC POTENTIAL AND WITH THE PRESENCE OF A MID-LATITUDE TROUGH, THE SYSTEM SHOULD EXPERIENCE A NOTABLE WEAKENING.

THE INTENSITY OF THIS SYSTEME DOESN'T REQUIRE ISSUANCE OF REGULAR WARNINGS.