

WTIO30 FMEE 201231

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 14/5/20222023

1.A OVERLAND DEPRESSION 5 (CHENESO)

2.A POSITION 2023/01/20 AT 1200 UTC:

WITHIN 50 NM RADIUS OF POINT 16.7 S / 46.5 E

(SIXTEEN DECIMAL SEVEN DEGREES SOUTH AND
FORTY SIX DECIMAL FIVE DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 8 KT

3.A DVORAK ANALYSIS: NIL

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): 1008 HPA / 1100 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/01/21 00 UTC: 17.6 S / 45.3 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

24H: 2023/01/21 12 UTC: 18.8 S / 44.6 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

36H: 2023/01/22 00 UTC: 19.2 S / 44.2 E, VENT MAX= 025 KT, ZONE OF DISTURBED
WEATHER

48H: 2023/01/22 12 UTC: 19.2 S / 44.1 E, VENT MAX= 030 KT, ZONE OF DISTURBED
WEATHER

28 KT NE: 535 SE: 95 SW: 130 NW: 595

60H: 2023/01/23 00 UTC: 19.2 S / 43.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 535 SE: 110 SW: 150 NW: 575

72H: 2023/01/23 12 UTC: 19.1 S / 43.8 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 535 SE: 110 SW: 555 NW: 520

2.B LONGER-RANGE OUTLOOK:

96H: 2023/01/24 12 UTC: 19.0 S / 43.3 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 465 SE: 335 SW: 240 NW: 240

34 KT NE: 95 SE: 150 SW: 130 NW: 85

120H: 2023/01/25 12 UTC: 19.3 S / 42.7 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 335 SE: 370 SW: 280 NW: 220

34 KT NE: 150 SE: 185 SW: 150 NW: 110

2.C ADDITIONAL INFORMATION:

CONVECTION ASSOCIATED WITH OVERLAND DEPRESSION CHENESO IS MAINLY CONCENTRATED WITHIN ACTIVE PERIPHERAL BANDS NEAR THE NORTHWEST AND EAST COASTS OF MADAGASCAR.

THE SYSTEM'S TRACK IS DRIVEN BY STEERING FLOWS AT 700 HPA WHICH ARE BECOMING GRADUALLY MORE CONTRADICTORY BETWEEN A SUBTROPICAL RIDGE SOUTH OF MADAGASCAR AND A NEAR-EQUATORIAL RIDGE THAT IS STRENGTHENING TO THE NORTH. THIS FAVORS INITIALLY A SOUTHWESTWARD MOVEMENT UNTIL SUNDAY, BRINGING THE CENTER OUT INTO THE EASTERN MOZAMBIQUE CHANNEL. EARLY NEXT WEEK, ITS MOVEMENT SHOULD BECOME MORE QUASI-STATIONARY, REMAINING CLOSE TO MADAGASCAR'S WEST COAST. MODEL DISPERSION IS NEVERTHELESS VERY HIGH, THE AMERICAN ENSEMBLE SUGGESTING A LITTLE MORE FRANK WESTWARD MOVEMENT OF THE SYSTEM INTO THE MOZAMBIQUE CHANNEL WHILE THE EUROPEAN ENSEMBLE FAVORS A SYSTEM REMAINING CLOSER TO THE MALAGASY COAST. THE FORECAST IS THEREFORE PARTICULARLY UNCERTAIN FOR THE BEGINNING OF NEXT WEEK.

THE INTENSITY FORECAST IS ALSO VERY UNCERTAIN AND DEPENDS ON THE SYSTEM MOVING MORE OR LESS OUT TO SEA. ENVIRONMENTAL CONDITIONS ARE MIXED : ON THE DOWN SIDE, INTERACTION WITH THE MALAGASY TERRAIN AND SOUTHWESTERLY MID-LEVEL SHEAR ASSOCIATED WITH POSSIBLE DRY AIR INTRUSIONS CAN OFFSET DEVELOPMENT, WHEREAS, ON THE CONDUCIVE SIDE, THE SYSTEM SHOULD BENEFIT FROM VERY GOOD UPPER DIVERGENCE AND VERY HIGH OCEANIC POTENTIAL (SST ABOVE 29C). THE CURRENT FORECAST MAKES A COMPROMISE BETWEEN AVAILABLE GUIDANCE, WITH A SLOW EXIT INTO THE MOZAMBIQUE CHANNEL AND LIMITED INTENSIFICATION, REACHING UP TO TROPICAL STORM STAGE BY TUESDAY OR WEDNESDAY, ALTHOUGH THIS REMAINS HIGHLY UNCERTAIN.

IMPACTS ON INHABITED LANDS DURING THE NEXT 72 HOURS.

MADAGASCAR:

- ADDING TO RECENT RAIN TOTALS, HEAVY RAINFALL WILL CONTINUE THROUGH MONDAY, AFFECTING MORE SPECIFICALLY THE NORTHWESTERN PART WITH A STRONG MONSOON FLOW SURGE FEEDING THE NORTHERN PART OF THE CIRCULATION. EXPECTED CUMULATIVE RAINFALL OVER THE NEXT 3 DAYS EXCEEDS 200 MM OVER A LARGE PART OF NORTHWESTERN REGIONS (BOENY, BETSIBOKA, MELAKY AND SOFIA) AS WELL AS THE REGION OF VATOVAVY ON THE EAST COAST, WITH LOCALLY MORE THAN 300/500 MM.

DUE TO HIGH UNCERTAINTY ON THE FORECAST TRACK AND WITH A SYSTEM THAT SHOULD REMAIN WEAK FOR THE NEXT FEW DAYS, ISSUANCE OF REGULAR BULLETINS ON THIS SYSTEM WILL BE TEMPORARILY INTERRUPTED AFTER THIS 12UTC RSMC BULLETIN. HOWEVER, LA REUNION RSMC WILL KEEP CLOSELY MONITORING RISKS OF RE-DEVELOPMENT AND BULLETINS WILL RESUME IF

FUTURE RE-INTENSIFICATION OVER THE MOZAMBIQUE CHANNEL IS CONFIRMED.