

WTIO30 FMEE 191857

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 17/7/20202021

1.A MODERATE TROPICAL STORM 7 (ELOISE)

2.A POSITION 2021/01/19 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 15.1 S / 50.0 E

(FIFTEEN DECIMAL ONE DEGREES SOUTH AND  
FIFTY DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST 8 KT

3.A DVORAK ANALYSIS: NIL

4.A CENTRAL PRESSURE: 988 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: 185 SE: 185 SW: 0 NW: 0

34 KT NE: 95 SE: 95 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/01/20 06 UTC: 15.6 S / 48.6 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

28 KT NE: 110 SE: 45 SW: 10 NW: 55

24H: 2021/01/20 18 UTC: 16.6 S / 46.3 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

36H: 2021/01/21 06 UTC: 17.7 S / 44.1 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

28 KT NE: 100 SE: 65 SW: 65 NW: 100

48H: 2021/01/21 18 UTC: 18.5 S / 42.5 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

28 KT NE: 215 SE: 230 SW: 95 NW: 130

34 KT NE: 120 SE: 150 SW: 85 NW: 65

60H: 2021/01/22 06 UTC: 19.5 S / 40.6 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 315 SE: 315 SW: 215 NW: 195

34 KT NE: 165 SE: 205 SW: 165 NW: 100

48 KT NE: 55 SE: 75 SW: 95 NW: 35

72H: 2021/01/22 18 UTC: 20.7 S / 39.0 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 325 SE: 350 SW: 260 NW: 230

34 KT NE: 175 SE: 220 SW: 195 NW: 165

48 KT NE: 85 SE: 85 SW: 100 NW: 65

64 KT NE: 35 SE: 30 SW: 20 NW: 55

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

96H: 2021/01/23 18 UTC: 23.3 S / 36.0 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 370 SE: 305 SW: 260 NW: 175

34 KT NE: 205 SE: 215 SW: 185 NW: 140

48 KT NE: 100 SE: 100 SW: 95 NW: 85

64 KT NE: 65 SE: 65 SW: 65 NW: 75

120H: 2021/01/24 18 UTC: 26.1 S / 34.2 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM

28 KT NE: 335 SE: 335 SW: 490 NW: 240

34 KT NE: 215 SE: 240 SW: 95 NW: 65

#### 2.C ADDITIONAL INFORMATION:

ELOISE MADE LANDFALL JUST SOUTH OF ANTALAHA. THE STORM TURNED NORTHWARD AS IT MADE LANDFALL, PROBABLY IN INTERACTION WITH THE MOUNTAINOUS MADAGASCAN TERRAIN. THE 1538Z SSMIS MW IMAGE REVEALED THAT THE INNER STRUCTURE OF THE SYSTEM HAS REINFORCED BY THE TIME IT REACHED THE SHORE, WITH A WELL DEFINED INNER CONVECTION RING ON 91GHZ IMAGE. THE MAX STAGE OF SEVERE TROPICAL STORM WAS PROBABLY REACHED. NOW, ELOISE IS TRACKING INLAND WHILE WEAKENING.

THE SYSTEM IS EXPECTED TO CROSS MADAGASCAR DURING MORE THAN 30HRS, FOLLOWING A SOUTH-WESTWARD TRACK STEERED BY THE SUBTROPICAL RIDGE. THE STORM IS EXPECTED TO COME BACK OVER WATER THURSDAY. THEN, ELOISE SHOULD KEEP ON HEADING SOUTH-WESTWARD AND NEAR THE MOZAMBICAN COASTS BY THIS WEEK-END. HOWEVER, AT THE END OF THE FORECAST PERIOD, THE UNCERTAINTY INCREASES AS TWO SCENARIOS ARE SUGGESTED BY THE GUIDANCE : ELOISE COULD CONTINUE SOUTH-WESTWARD AND IMPACT THE MOZAMBICAN COASTS, OR ITS TRACK COULD CURVE SOUTHWARD AHEAD OF A MID-LATITUDES TROUGH AND PASS EAST OF THE SHORELINE.

THURSDAY, ONCE ELOISE WILL BE IN THE MOZAMBIQUE CHANNEL, THE ENVIRONMENTAL CONDITIONS WILL BE PARTICULARLY CONDUCTIVE FOR A QUICK REINTENSIFICATION. NOTE THAT THE UNCERTAINTY ON THIS INTENSITY FORECAST IS HIGH AFTER SUCH A LONG PASSAGE OVER LAND THAT COULD DELAY THE REINTENSIFICATION. HOWEVER, MOST OF THE GUIDANCE SUGGEST THAT ELOISE SHOULD REACH TROPICAL CYCLONE INTENSITY, OR EVEN THE INTENSE TROPICAL CYCLONE STAGE, BEFORE A POSSIBLE LANDFALL.

ELOISE CURRENTLY GENERATED DANGEROUS WEATHER CONDITIONS ON NORTHERN MADAGASCAR WITH HEAVY RAINS THAT CAN LAST MORE THAN 24 HRS AND STRONG WINDS THAT STILL AFFECT THE NORTH-EASTERN COAST. HEAVY RAINS ARE ALSO EXPECTED TO DEVELOP OVER THE NORTHWESTERN PART OF THE COUNTRY. THE WELL ESTIMATES RANGE FROM 4M TO 6M MAX. THE STORM SURGE MAINLY AFFECTS THE ANTONGIL BAY, WITH ESTIMATES OF 1M. THE INHABITANTS OF THESE REGIONS ARE INVITED TO CLOSELY MONITOR THE SITUATION THROUGH THE INFORMATION AND RECOMMENDATIONS PROVIDED BY THE MADAGASCAN WEATHER AGENCY.

