

WTIO30 FMEE 190023
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 14/7/20202021

1.A SEVERE TROPICAL STORM 7 (ELOISE)

2.A POSITION 2021/01/19 AT 0000 UTC:
WITHIN 20 NM RADIUS OF POINT 14.3 S / 52.6 E
(FOURTEEN DECIMAL THREE DEGREES SOUTH AND
FIFTY TWO DECIMAL SIX DEGREES EAST)
MOVEMENT: WEST 8 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 986 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT
RADIUS OF MAXIMUM WINDS (RMW): 56 KM

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

28 KT NE: 390 SE: 280 SW: 280 NW: 390

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

48 KT NE: 75 SE: 0 SW: NW: 75

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: 2021/01/19 12 UTC: 15.1 S / 51.1 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 295 SE: 205 SW: 155 NW: 110

34 KT NE: 175 SE: 140 SW: 85 NW: 95

48 KT NE: 95 SE: 75 SW: 65 NW: 65

24H: 2021/01/20 00 UTC: 15.8 S / 49.1 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

28 KT NE: 220 SE: 130 SW: 75 NW: 55

36H: 2021/01/20 12 UTC: 16.5 S / 46.8 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

48H: 2021/01/21 00 UTC: 17.5 S / 44.7 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

60H: 2021/01/21 12 UTC: 18.7 S / 42.8 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 230 SE: 140 SW: 130 NW: 110

34 KT NE: 130 SE: 110 SW: 85 NW: 95

72H: 2021/01/22 00 UTC: 19.6 S / 41.2 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

28 KT NE: 305 SE: 250 SW: 175 NW: 150

34 KT NE: 175 SE: 195 SW: 130 NW: 120
48 KT NE: 85 SE: 85 SW: 75 NW: 75

2.B LONGER-RANGE OUTLOOK:

96H: 2021/01/23 00 UTC: 21.6 S / 37.7 E, VENT MAX= 075 KT, TROPICAL CYCLONE
28 KT NE: 335 SE: 350 SW: 240 NW: 240
34 KT NE: 195 SE: 270 SW: 205 NW: 175
48 KT NE: 110 SE: 110 SW: 100 NW: 95
64 KT NE: 55 SE: 75 SW: 75 NW: 55

120H: 2021/01/24 00 UTC: 23.5 S / 34.9 E, VENT MAX= 060 KT, OVERLAND DEPRESSION
28 KT NE: 370 SE: 335 SW: 175 NW: 155
34 KT NE: 205 SE: 260 SW: 165 NW: 100
48 KT NE: 110 SE: 110 SW: 70 NW: 60

2.C ADDITIONAL INFORMATION:

T=CI=3.5

OVER THE LAST 6 HOURS, THE CLOUD PATTERN HAS EVOLVED: WITH PEAKS THAT HAVE WARMED UP BUT A PATTERN THAT IS GRADUALLY MIGRATING INTO AN ILL-DEFINED EYE CONFIGURATION, ELOISE IS SHOWING SIGNS OF INTENSIFICATION. GMI MICROWAVE DATA FROM 2110UTC SHOWS ALMOST AN EYE WHICH PLEADS FOR THE PASSAGE TO THE THRESHOLD OF STRONG TROPICAL STORM. A DVORAK ANALYSIS OF 3.5 ALSO ALLOWS TO ESTIMATE WINDS OF THE ORDER OF 50KT.

NO CHANGE COMPARED TO THE PREVIOUS FORECAST. ELOISE WILL CONTINUE IN A GENERAL WEST-SOUTH-WEST DIRECTION ON THE NORTH-WEST FACE OF THE SUBTROPICAL RIDGE. ON THIS TRACK, ELOISE SHOULD REACH MADAGASCAR TODAY IN THE AFTERNOON ON THE MASOALA PENINSULA. TRANSITING THEN ON LAND FOR NEARLY 30 HOURS, THE SYSTEM WILL COME OUT ON SEA STILL ON THE NORTHWESTERN FACE OF THE SUBTROPICAL RIDGE. AT THE LONGER TIME, ELOISE KEEPS A SOUTH-WESTERN TRACK WHICH SHOULD BRING IT TO THE LEVEL OF THE AFRICAN COASTS AT THE END OF 5 DAYS.

DURING THIS DAY ON TUESDAY AND BEFORE THE NEXT LANDING, ENVIRONMENTAL CONDITIONS REMAIN MIXED: EASTERN SECTOR SHEAR REMAINS OMNIPRESENT WITH DRY AIR IN THE MIDDLE TROPOSPHERE PRESENT OVER A GOOD PART OF ELOISE'S CIRCULATION EXCEPT FOR THE NORTHWESTERN SECTOR. THE ALTITUDE DIVERGENCE REMAINS GOOD IN THE NORTHWEST QUADRANT. IN THESE CONDITIONS, ELOISE SHOULD REMAIN AT THE THRESHOLD OF A STRONG TROPICAL STORM BEFORE LANDING. BY THURSDAY, ONCE IT HAS EMERGED OVER THE SEA IN THE MOZAMBIQUE CHANNEL, ENVIRONMENTAL CONDITIONS ARE QUITE FAVORABLE FOR RAPID REINTENSIFICATION. IT IS ADVISABLE TO REMAIN CAUTIOUS ON THE INTENSITY FORECAST AT THESE LONG INTERVALS, BUT FOLLOWING MOST OF THE GUIDELINES, ELOISE SHOULD REACH THE CYCLONE THRESHOLD BEFORE LANDING ON THE AFRICAN COAST.

APPROACHING MADAGASCAR, ELOISE IS DEFINED AS A DANGEROUS SYSTEM WITH HEAVY RAINS THAT CAN LAST FOR MORE THAN 24 HOURS AND STRONG WINDS THAT WILL FIRST CONCERN THE NORTHEAST COAST OF MADAGASCAR. THE RAINY ACTIVITY WILL ALSO BE PRESENT ON THE NORTH-WESTERN COAST OF

MADAGASCAR. PHENOMENA OF WAVES AND ASSOCIATED SURGE WILL OCCUR. WAVES OF A PROBABLE HEIGHT OF ABOUT 4M ARE EXPECTED TO REACH A MAXIMUM HEIGHT OF 6M. THE SURGE WILL BE MAINLY MARKED BY THE BAY OF ANTANGIL. THE INHABITANTS OF THE CONCERNED ZONES ARE INVITED TO BE INFORMED OF THE CONTINUATION OF THE EVENTS THROUGH THE MALAGASY METEOROLOGICAL SERVICES.