

Direction Interrégionale 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 110040

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

0.A WARNING NUMBER: 7/4/20152016

1.A MODERATE TROPICAL STORM 4 (DAYA)

2.A POSITION 2016/02/11 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 24.5 S / 53.0 E

(TWENTY FOUR DECIMAL FIVE DEGREES SOUTH AND FIFTY THREE DECIMAL ZERO

DEGREES EAST)

MOVEMENT: SOUTH-EAST 5 KT

3.A DVORAK ANALYSIS: 2.5/3.0/D 1.0/24 H

4.A CENTRAL PRESSURE: 992 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

28 KT NE: 150 SE: 240 SW: 190 NW: 90 34 KT NE: 60 SE: 60 SW: 60 NW: 60

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1003 HPA / 800 KM 8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2016/02/11 12 UTC: 26.1 S / 54.8 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

24H: 2016/02/12 00 UTC: 28.3 S / 56.4 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

36H: 2016/02/12 12 UTC: 31.2 S / 57.8 E, MAX WIND=040 KT, POST-TROPICAL DEPRESSION

48H: 2016/02/13 00 UTC: 35.2 S / 59.0 E, MAX WIND=040 KT, POST-TROPICAL

DEPRESSION 60H: 2016/02/13 12 UTC: 39.3 S / 62.3 E, MAX WIND=040 KT, POST-TROPICAL

DEPRESSION

2.B LONGER-RANGE OUTLOOK:

2.C ADDITIONAL INFORMATION:

T=2.5+ CI=3.0-

OVER THE LAST SIX HOURS, THE CLOUD PATTERN HAS KEPT ON IMPROVING WITH A CURVED BAND IN THE EASTERN PART, BUT DURING THE LAST HOURS, DEEP CONVECTION IN THE WESTERN PART SHOWS SIGNS OF WEAKENING DUE TO THE NORTHWESTERLY UPPER LEVEL CONSTRAINT (CIRRUS ARCUS). THE GCOM 2140Z DATA SHOW A TILT BETWEEN LOW LEVEL AND CONVECTION, AND ON THE LAST IR SATELLITE IMAGERY, DEEP CONVECTION IS CLEARLY WEAKENING NEAR THE CENTER.

1740Z ASCAT DATA CORROBORATE EXISTING GALE FORCE WINDS, WITH STRONGER WINDS IN THE EASTERN SEMI-CIRCLE.

THE SYSTEM SEEM TO HAVE REACHED ITS MAXIMUM OF INTENSITY, AND SHOULD BECOME TO WEAKEN SLOWLY TODAY BETWEEN A NORTHWESTERLY CONSTRAINT NOT YET DEADLY, AND A PERSISTENT GOOD UPPER LEVEL DIVERGENCE POLARWARD.

THE PARABOLIC TRACK OF THE SYSTEM IS STEERED BY BOTH A CUT-OFF LOW IN THE SOUTH-WEST AND A HIGH GEOPOTENTIAL AREA IN THE EAST. UNDER THE JOINED INFLUENCE OF THESE TWO SYNOPTIC STRUCTURES, THE AVAILABLE NWP MODELS STILL FORECAST SIMILAR TRACKS BUT WITH A LIGHT DISPERSION INCREASE DUE TO SOME ANALYSIS DIFFERENCES. THUS, THE SYSTEM HAS ALREADY TURNED SOUTH-EASTWARD AND BEGAN TO ACCELERATE. THE ENVIRONMENTAL CONDITIONS BECOME REALLY UNFAVOURABLE UP TO THURSDAY EVENING. FRIDAY, THE SYSTEM IS TRACKING OVER LOW ENERGETIC WATERS AND SHIFTS GRADUALLY UNDER A BRANCH OF THE SUBTROPICAL WESTERLY JET. IT SHOULD THEN BEGIN A RELATIVELY QUICK EXTRATROPICAL TRANSITION BEFORE MERGING WITH A BAROCLINIC LOW SATURDAY.