

WTIO30 FMEE 190710

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

0.A WARNING NUMBER: 5/5/20182019

1.A MODERATE TROPICAL STORM 5 (CILIDA)

2.A POSITION 2018/12/19 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 11.2 S / 60.9 E

(ELEVEN DECIMAL TWO DEGREES SOUTH AND SIXTY DECIMAL NINE DEGREES EAST)

MOVEMENT : SOUTH-SOUTH-WEST 4 KT

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

4.A CENTRAL PRESSURE: 996 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT

RADIUS OF MAXIMUM WINDS (RMW) :46 KM

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

28 KT NE: 170 SE: 310 SW: 220 NW: 110

34 KT NE: 60 SE: 70 SW: 110 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : MEDIUM

1.B FORECASTS:

12H: 2018/12/19 18 UTC: 11.9 S / 60.1 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

24H: 2018/12/20 06 UTC: 12.7 S / 59.0 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

36H: 2018/12/20 18 UTC: 13.6 S / 58.0 E, MAX WIND=070 KT, TROPICAL CYCLONE

48H: 2018/12/21 06 UTC: 14.3 S / 57.5 E, MAX WIND=085 KT, TROPICAL CYCLONE

60H: 2018/12/21 18 UTC: 15.1 S / 57.6 E, MAX WIND=095 KT, INTENSE TROPICAL CYCLONE

72H: 2018/12/22 06 UTC: 16.2 S / 58.0 E, MAX WIND=100 KT, INTENSE TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK :

96H: 2018/12/23 06 UTC: 19.5 S / 59.7 E, MAX WIND=090 KT, INTENSE TROPICAL CYCLONE

120H: 2018/12/24 06 UTC: 23.9 S / 63.6 E, MAX WIND=070 KT, TROPICAL CYCLONE

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

SINCE YESTERDAY EVENING, THE SYSTEM SHOW A WELL-DEFINED LOW LEVEL CIRCULATION (AS PER 37 GHZ MW IMAGERY). THIS MORNING, A SLIGHT WEAKENING OF THE PATTERN IS SEEN ON THE EASTERN SIDE OF THE CENTER AND MAY BE DUE TO A PERSISTENT EASTERLY SHEAR CONSTRAINT. MIMIC TPW FROM THE CIMSS WEBSITE ALSO DEPICTS SLIGHTLY DRYER AIRMASS ON THE EASTERN PERIPHERY. ALL OBJECTIVE AND SUBJECTIVE DVORAK ESTIMATES ARE AT 2.5. PARTIAL ASCAT PASS OF 0528Z SHOW 30 KT WINDS AT 95-100 KM EAST OF THE CENTER, SUGGESTING THAT GALE FORCE WINDS EXIST CLOSER TO THE CENTER. THEREFORE, THE SYSTEM HAS BEEN NAMED CILIDA BY MMS.

NO CHANGE IN THE FORECAST REASONING:

THE SYSTEM HAS TRACKED SLOWLY SOUTHSOUTHWESTWARDS OVER THE PAST SIX HOURS. OVER THE NORTHWESTERN EDGE OF A BUILDING MID LEVEL SUBTROPICAL RIDGE, THE SYSTEM IS EXPECTED TO RESUME A GENERAL SOUTHWESTWARDS TRACK UP TO FRIDAY. LATER IN THE WEEK A DEEP UPPER TO MID-LEVEL RIDGE IS EXPECTED TO MOVE SOUTH OF THE MASCAREIGNES ISLANDS, RESULTING IN A SIGNIFICANT AND PERSISTENT BREAK IN THE SUBTROPICAL RIDGE. THEREFORE, THE TRACK IS EXPECTED TO SLOW DOWN FRIDAY BEFORE GRADUALLY ACCELERATING SOUTH-SOUTH-EASTWARDS SATURDAY AND SUNDAY. THE PHILOSOPHY OF THE TRACK FORECAST IS IN GOOD AGREEMENT BETWEEN THE DIFFERENT MODELS HOWEVER THERE IS UNCERTAINTY ABOUT THE VELOCITY OF DISPLACEMENT DURING ACCELERATION TOWARDS THE SOUTH-SOUTHEAST.

CURRENTLY THE SYSTEM IS STILL UNDER A MODERATE EASTERLY CONSTRAINT, BUT AS THE SYSTEM WILL GAIN LATITUDES, IT IS EXPECTED TO MOVE UNDER THE UPPER LEVEL RIDGE WITHIN FAVORABLE TO VERY FAVORABLE ENVIRONMENT UP TO SATURDAY (WITH SPECIALLY ENHANCED UPPER LEVEL DIVERGENCE ASSOCIATED WITH TWO EFFICIENT OUTFLOW CHANNELS). WITHIN THE NEXT 24H TO 48H, A RAPID INTENSIFICATION SEEMS LIKELY. FROM SUNDAY AND BEYOND, INCREASING WEST-NORTH-WESTERLY SHEAR ALONG WITH A DRYER MID LEVEL ENVIRONMENT SHOULD START TO WEAKEN THE SYSTEM, HOWEVER IT MAY RESIST DUE TO A RATHER FAST MOVEMENT.

THIS TROPICAL SYSTEM HAS THE POTENTIAL TO BECOME A DANGEROUS TROPICAL CYCLONE AND MAY POSE A THREAT TO THE MASCAREIGNES ISLANDS LATER THIS WEEK. INHABITANTS OF THOSE ISLANDS SHOULD MONITOR THE PROGRESS OF THIS SYSTEM.