

WTIO30 FMEE 011241

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 1/10/20182019

1.A TROPICAL DISTURBANCE 10

2.A POSITION 2019/03/01 AT 1200 UTC:

WITHIN 25 NM RADIUS OF POINT 10.3 S / 75.7 E

(TEN DECIMAL THREE DEGREES SOUTH AND  
SEVENTY FIVE DECIMAL SEVEN DEGREES EAST)

MOVEMENT: WEST-SOUTH-WEST 8 KT

3.A DVORAK ANALYSIS: 1.5/1.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 1003 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 25 KT

RADIUS OF MAXIMUM WINDS (RMW): 37 KM

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

NIL

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: MEDIUM

1.B FORECASTS:

12H: 2019/03/02 00 UTC: 11.1 S / 74.5 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

24H: 2019/03/02 12 UTC: 12.4 S / 73.2 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

36H: 2019/03/03 00 UTC: 13.8 S / 72.5 E, VENT MAX= 040 KT, MODERATE TROPICAL  
STORM

48H: 2019/03/03 12 UTC: 14.9 S / 72.3 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

60H: 2019/03/04 00 UTC: 15.9 S / 72.2 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

72H: 2019/03/04 12 UTC: 16.7 S / 72.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK:

96H: 2019/03/05 12 UTC: 18.5 S / 71.5 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

120H: 2019/03/06 12 UTC: 20.5 S / 70.1 E, VENT MAX= 045 KT, MODERATE TROPICAL  
STORM

2.C ADDITIONAL INFORMATION:

T=CI=1.5+

FOR 24 HOURS, A VORTICITY SPOT IS BECOMING STRONGER EAST OF  
DIEGO-GARCIA. THIS MORNING ASCAT SWATH SHOW THE EXISTENCE OF AN

ELONGATED ASYMMETRIC LOW LEVELS CIRCULATION, ON THE NORTHERN EDGE OF THE CONVECTIVE ACTIVITY. WINDS ARE REACHING 25KT FAR IN THE POLAR FEEDING BUT DO NOT EXCEED 15KT IN THE NORTHERN SIDE. LAST MICROWAVE DATA ESPECIALLY 0845Z AMSR2 CONFIRM THAT THE CORE IS STILL ELONGATED NORTH OF A BROKEN CONVECTIVE BAND. THIS PATTERN IS PROBABLY THE CONSEQUENCE OF THE NORTH-EASTERLY VERTICAL WIND SHEAR ANALYSED AROUND 15/20KT BY CIMSS.

THE SYSTEM IS MOVING ON THE NORTH-WESTERN EDGE OF THE SUBTROPICAL ANTICYCLONE, PREVENTING AT FIRST A MERIDIONAL TRACK. THE STEERING FLOW IS THEN EXPECTED TO BEND NORTHWARD AS THE LOW DEEPEN AND THE RIDGE WEAKEN AT SOUTH. AT LONGER RANGE, THE SYSTEM MAY MOVE SOUTH-WESTWARD AHEAD OF A NEW SUBTROPICAL RIDGE. THIS SCENARIO IS BASED ON THE CONSENSUS OF THE MAIN MODELS, TAKING INTO ACCOUNT A SHIFT AT ANALYSIS.

ABOUT ITS INTENSITY, THE DISTURBANCE 10 IS LIKELY TO BENEFIT FROM MORE CONDUCTIVE CONDITIONS THIS WEEK-END. THE SHEAR WILL DECREASE AS THE LOW MOVES SOUTH AND THE UPPER DIVERGENCE WILL REMAIN VERY GOOD IN THE WESTERN AND SOUTHERN SEMI-CIRCLE. HOWEVER A NORTH-WESTERLY CONSTRAINT, TEMPORARILY TOMORROW NIGHT AND FROM MONDAY TO TUESDAY NIGHT IS LIKELY TO LIMIT THE POTENTIAL OF THE SYSTEM. MOREOVER THE CURRENT INNER STRUCTURE TO SLOW DOWN THE DEEPENING RATE AT FIRST. THE TROPICAL CYCLONE STATUS IS THUS NOT CERTAIN.