

WTIO30 FMEE 061846

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

0.A WARNING NUMBER: 3/2/20182019

1.A MODERATE TROPICAL STORM 2 (ALCIDE)

2.A POSITION 2018/11/06 AT 1800 UTC:

WITHIN 30 NM RADIUS OF POINT 9.8 S / 58.4 E

(NINE DECIMAL EIGHT DEGREES SOUTH AND FIFTY EIGHT DECIMAL FOUR DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 11 KT

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

4.A CENTRAL PRESSURE: 999 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :37 KM

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

28 KT NE: 110 SE: 190 SW: 200 NW: 90

34 KT NE: 50 SE: 60 SW: 60 NW: 50

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1011 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/11/07 06 UTC: 10.3 S / 56.8 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

24H: 2018/11/07 18 UTC: 11.0 S / 55.7 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

36H: 2018/11/08 06 UTC: 11.9 S / 55.0 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

48H: 2018/11/08 18 UTC: 12.5 S / 54.7 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

60H: 2018/11/09 06 UTC: 13.0 S / 54.4 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

72H: 2018/11/09 18 UTC: 13.4 S / 54.4 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/11/10 18 UTC: 13.3 S / 55.0 E, MAX WIND=030 KT, TROPICAL DEPRESSION

120H: 2018/11/11 18 UTC: 13.1 S / 54.5 E, MAX WIND=020 KT, FILLING UP

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

OVER THE LAST 6 HOURS, SEVERAL CONVECTIVE THRUSTS OCCURRED JUST NORTH OF THE CENTER WITH COLD CLOUD TOPS (-90C). LAST MICROWAVE DATA (SSMIS 1442Z AND GMI 1606Z) SHOW AN IMPROVEMENT OF THE INNER SURFACE CIRCULATION WHICH SHIFTED UNDER THE UPPER VORTEX. THUS, MOVEMENT SPEED INCREASED.

GIVEN THESE DATA, THE SYSTEM WAS UPGRADED TO MODERATE TROPICAL STORM STATUS AND NAMED ALCIDE BY THE MAURITIUS METEOROLOGICAL SERVICES. 1424Z SMAP DATA AS WELL AS PARTIAL 1751Z ASCAT SWATHS SUGGEST ALSO THE EXISTENCE OF GALE FORCE WINDS.

ALCIDE IS MOVING WESTSOUTHWESTWARD M STEERED BY A LOW LEVEL RIDGE LOCATED IN THE SOUTH-EAST OF THE SYSTEM. WITH THE EXPECTED DEEPENING, THE MID-LEVELS PATTERNS WILL TAKE OVER AND THE PROGRESSION OF THE STORM SHOULD BE EVENTUALLY BLOCKED BY A HIGH GEOPOTENTIAL AREA LOCATED IN THE SOUTH-WEST. THE TRACK WILL THUS BEGIN TO BEND SOUTHWARD THURSDAY BEFORE A SIGNIFICANT SLOWING. IN THAT SYNOPTIC ENVIRONMENT, UNCERTAINTY IS RATHER STRONG AND VERY DEPENDING ON THE EFFECTIVE INTENSITY. AT LONG RANGE, A MUCH WEAKER SYSTEM COULD BE TAKEN AWAY BY THE TRADE WINDS FLOW.

THIS TRACK FORECAST IS BASED ON A CONSENSUS OF MAJOR MODELS. IFS AND GFS MODELS HAVE A SIMILAR PHILOSOPHY BUT THE EUROPEAN IS SHIFTED NORTH MAYBE DUE TO A BAD ANALYSIS.

ENVIRONMENTAL CONDITIONS ARE FAVORABLE TONIGHT AND TOMORROW WITH AN EXCELLENT UPPER DIVERGENCE IN THE SOUTHERN SEMI-CIRCLE AND ENOUGH OCEANIC POTENTIAL NORTH OF 15S. A RAPID INTENSIFICATION PHASE IS NOT EXCLUDED BUT THE CURRENT ELONGATED SURFACE CIRCULATION (GMI 1606Z) MAY LIMIT THAT RISK.

MAXIMUM WINDS ARE LIKELY TO COME CLOSER TO THE FIRST LEVEL OF HURRICANE FORCE. FROM THURSDAY AND MOSTLY FRIDAY, NORTH-WESTERLY VERTICAL WIND SHEAR IS FORECAST TO STRENGTHEN SIGNIFICANTLY AND TRIGGER A SEVERE DECAY. IT MAY ALSO BE FAVORED BY THE SLOW MOVEMENT AND THEREFORE THE UNDERLYING WATER COOLING.