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METEO FRANCE

WTIO30 FMEE 171228

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

0.A WARNING NUMBER: 3/1/20162017

1.A MODERATE TROPICAL STORM 1 (ABELA)

2.A POSITION 2016/07/17 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 12.0 S / 64.4 E

(TWELVE DECIMAL ZERO DEGREES SOUTH AND SIXTY FOUR DECIMAL FOUR DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 14 KT

3.A DVORAK ANALYSIS: 2.5/2.5/S 0.0/6 H

4.A CENTRAL PRESSURE: 1000 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :56 KM

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

28 KT NE: 140 SE: 560 SW: 240 NW: 170

34 KT NE: 90 SE: 190 SW: 90 NW: 60

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : MEDIUM

1.B FORECASTS:

12H: 2016/07/18 00 UTC: 13.2 S / 61.8 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

24H: 2016/07/18 12 UTC: 14.3 S / 59.3 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

36H: 2016/07/19 00 UTC: 15.2 S / 57.0 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

48H: 2016/07/19 12 UTC: 16.3 S / 54.2 E, MAX WIND=030 KT, TROPICAL DEPRESSION

60H: 2016/07/20 00 UTC: 17.5 S / 52.2 E, MAX WIND=025 KT, LOW

72H: 2016/07/20 12 UTC: 18.6 S / 50.7 E, MAX WIND=025 KT, LOW

2.B LONGER-RANGE OUTLOOK :

2.C ADDITIONAL INFORMATION:

T=2.5- CI=2.5

OVER THE LAST 6 HOURS, THE CLOUD TOPS GOT WARMER IN RELATION WITH THE

DIURNAL CYCLE. THE CURVED BAND EXISTING AT 06Z DISAPPEARED. BUT ON THE LAST IMAGERY, DEEP CONVECTION CAME BACK CURLING NEAR THE CENTER OF NR1. FURTHERMORE, LAST RAPIDSCAT SWAT AT 0610Z SHOW THE PRESENCE OF 40KT WINDS IN THE SOUTH-EASTERN QUADRANT. THEREFORE, MAURITIUS METEOROLOGICAL SERVICES PROCEEDED TO THE BAPTISM OF ABELA AT 11 UTC. UPPER LEVEL DIVERGENCE IS STILL EXCELLENT WHILE THE VERTICAL WIND SHEAR REMAIN MODERATE (THE SYSTEM CONTINUE TO ACCELERATE TOWARDS THE WEST-SOUTH-WEST. THE AVAILABLE MODEL GUIDANCE IS IN GOOD AGREEMENT AND FORECAST A TRACK FOLLOWING THIS DIRECTION UNTIL TUESDAY, STEERED BY A RIDGE OF HIGH GEOPOTENTIALS IN THE SOUTH-EAST OF THE SYSTEM. THEN, UNCERTAINTY IS INCREASING WITH TWO MAIN SCENARIOS. SOME MODELS FORECAST A TRACK TOWARDS THE WEST MEANWHILE OTHER MAKE THE SYSTEM DIVE SOUTHWARDS, BETWEEN MADAGASCAR AND THE REUNION ISLAND. THIS DISAGREEMENT IS EXPLAINED BY A STRONGER MID LEVEL TROUGH SOUTH OF THE MOZAMBIQUE CHANNEL, WHICH DISRUPT THE TRADE WIND FLOW. ENSEMBLE PREDICTION SHOW BOTH SCENARIOS EQUALLY. BUT MOST OF THE MAJOR DETERMINISTIC MODEL SUGGEST THE SECOND CHOICE, WHICH IS SO THE FAVORED ONE FOR THIS FORECAST.

ALONG THIS TRACK, THE SYSTEM SHOULD GRADUALLY PASS UNDER THE UPPER LEVEL NEAR EQUATORIAL RIDGE. WINDSHEAR SHOULD THEN WEAKEN, WITH STILL A VERY GOOD DIVERGENCE OUTFLOW CHANNEL. THUS, ABELA MAY DEEPEN TEMPORARY NEXT NIGHT THANKS TO THE DIURNAL CONVECTIVE THRUST. HOWEVER THE LACK OF OCEANIC ENERGY SHOULD SERIOUSLY LIMIT THE DEEP CONVECTION SOUTH OF 13S. FROM TUESDAY, IN A DRIER ENVIRONMENT AND AN INCREASING WIND SHEAR THE SYSTEM SHOULD WEAKEN SIGNIFICANTLY.