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WTIO30 FMEE 170645

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

0.A WARNING NUMBER: 8/6/20152016

1.A INTENSE TROPICAL CYCLONE 6 (EMERAUDE)

## 2.A POSITION 2016/03/17 AT 0600 UTC:

WITHIN 10 NM RADIUS OF POINT 10.6 S / 84.1 E

(TEN DECIMAL SIX DEGREES SOUTH AND EIGHTY FOUR DECIMAL ONE DEGREES

EAST)

**MOVEMENT: SOUTH-WEST 2 KT** 

3.A DVORAK ANALYSIS: 6.5/6.5/D 1.5/6 H

4.A CENTRAL PRESSURE: 946 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 110 KT RADIUS OF MAXIMUM WINDS (RMW) :17 KM

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

28 KT NE: 80 SE: 90 SW: 90 NW: 150 34 KT NE: 60 SE: 60 SW: 60 NW: 110 48 KT NE: 50 SE: 50 SW: 50 NW: 70 64 KT NE: 40 SE: 40 SW: 40 NW: 50

# 7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 300 KM 8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

### 1.B FORECASTS:

12H: 2016/03/17 18 UTC: 10.6 S / 84.1 E, MAX WIND=110 KT, INTENSE TROPICAL CYCLONE

24H: 2016/03/18 06 UTC: 10.7 S / 84.8 E, MAX WIND=110 KT, INTENSE TROPICAL CYCLONE

36H: 2016/03/18 18 UTC: 11.0 S / 86.1 E, MAX WIND=110 KT, INTENSE TROPICAL CYCLONE

48H: 2016/03/19 06 UTC: 11.4 S / 87.6 E, MAX WIND=110 KT, INTENSE TROPICAL CYCLONE

60H: 2016/03/19 18 UTC: 11.9 S / 88.7 E, MAX WIND=110 KT, INTENSE TROPICAL CYCLONE

72H: 2016/03/20 06 UTC: 12.7 S / 89.1 E, MAX WIND=100 KT, INTENSE TROPICAL CYCLONE

#### 2.B LONGER-RANGE OUTLOOK:

96H: 2016/03/21 06 UTC: 14.4 S / 87.5 E, MAX WIND=060 KT, SEVERE TROPICAL STORM 120H: 2016/03/22 06 UTC: 14.8 S / 84.7 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

#### 2.C ADDITIONAL INFORMATION:

THE SATELLITE AND MW PRESENTATION HAS CLEARLY IMRPOUVED AT THE END OF THE NIGHT. THE EYE HAS WARMED INTO A VERY COLD CDO IN IR CHANEL. THE LAST SSMIS DATA OF 01H42Z SHOW THE PROGRESSIVE BUILDING OUTSIDE CONVECTIVE BAND AROUND THE CDO, THAT MAY PREDICT THE BEGINING OF A EYEWALL REPLACEMENT CYCLE.

EMERAUDE SEEMS TO BE QUITE STATIONARY ON THE VERY LAST SATELITE IMAGERY, AND SHOULD TURN GRADUALLY EASTWARDS UNDER THE STEERING FLOW OF A NEAR EQUATORIAL RIDGE BUILDING IN ITS NORTH-EAST. DURING THE WEEK-END, THE TRACK SHOULD TURN SOUTHWARDS THEN SOUTHWESTWARDS AS A SUBTROPICAL RIDGE SHOULD GRADUALLY BUILD SOUTH OF THE SYSTEM. GLOBAL MODELS ARE NOT IN GOOD AGREEMENT AND DIFFER SOMETIMES STRONGLY ABOUT THE FORWARD SPEED LEADING TO SIGNIFICANT SPREAD IN THE GUIDANCE. THE CURRENT FORECAST IS CLOSE TO THE PREVIOUS ONE AND IS A BLEND OF THE LATEST MEAN TRACK FROM GFS-UK-EURO AND GFS-EURO.

ON THIS TRACK, ENVIRONMENTAL CONDITIONS WILL REMAIN MOSTLY CONDUCIVE DURING MOST OF THE FORECAST PERIOD. THE SYSTEM IS LOCATED UNDER AN UPPER LEVEL RIDGE WITH A STILL IMPROVING UPPER LEVEL DIVERGENCE POLEWARDS DUE TO THE REMOTE EFFECT OF A TRANSIENT UPPER LEVEL TROUGH TODAY AND FRIDAY. THE ENVIRONMENT COULD BE A LITTLE LESS CONDUCIVE LATER THIS WEEK-END ESSENTIALLY DUE TO AN INCREASE IN NORTHERLY VWS. ON THE CURRENT FORECAST TRACK, THE SYSTEM COULD PASS OVER SELF-INDUCED COOL WATERS. MOREOVER, THE INTERNAL DYNAMICS, SUCH AS EYEWALL REPLACEMENT CYCLE WHICH IS VERY LIKELY WITH MATURE SYSTEM BUT WITH POOR FORECAST SKILL, COULD REDUCE THE INTENSIFICATION RATE. GIVEN THE SMALL SIZE OF THE SYSTEM, RAPID VARIATION (INCLUDING RAPID INTENSIFICATION AND RAPID DECAY) ARE LIKELY, BRINGING UNCERTAINTIES IN THE FORECAST.