

WTIO30 FMEE 050059

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 6/13/20202021

1.A SEVERE TROPICAL STORM 13 (HABANA)

2.A POSITION 2021/03/05 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 16.6 S / 74.5 E

(SIXTEEN DECIMAL SIX DEGREES SOUTH AND
SEVENTY FOUR DECIMAL FIVE DEGREES EAST)

MOVEMENT: EAST 8 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 1.5/24 H

4.A CENTRAL PRESSURE: 988 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW): 22 KM

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

28 KT NE: 280 SE: 185 SW: 95 NW: 185

34 KT NE: 110 SE: 75 SW: 55 NW: 95

48 KT NE: 35 SE: 0 SW: 40 NW: 55

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 700 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/03/05 12 UTC: 16.4 S / 76.1 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 140 SE: 100 SW: 140 NW: 130

34 KT NE: 85 SE: 45 SW: 55 NW: 75

24H: 2021/03/06 00 UTC: 16.0 S / 77.2 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 130 SE: 100 SW: 100 NW: 130

34 KT NE: 85 SE: 45 SW: 45 NW: 55

36H: 2021/03/06 12 UTC: 15.8 S / 78.2 E, VENT MAX= 030 KT, TROPICAL DEPRESSION

28 KT NE: 130 SE: 75 SW: 100 NW: 110

48H: 2021/03/07 00 UTC: 15.8 S / 79.2 E, VENT MAX= 025 KT, REMNANT LOW

60H: 2021/03/07 12 UTC: 16.1 S / 80.4 E, VENT MAX= 025 KT, REMNANT LOW

72H: 2021/03/08 00 UTC: 16.5 S / 81.7 E, VENT MAX= 025 KT, REMNANT LOW

2.B LONGER-RANGE OUTLOOK:

96H: 2021/03/09 00 UTC: 17.2 S / 82.4 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 165 SE: 110 SW: 120 NW: 110

120H: 2021/03/10 00 UTC: 17.7 S / 80.6 E, VENT MAX= 040 KT, MODERATE TROPICAL
STORM

28 KT NE: 165 SE: 155 SW: 140 NW: 120

34 KT NE: 95 SE: 95 SW: 95 NW: 85

2.C ADDITIONAL INFORMATION:

T=CI=3.5

DURING THE NIGHT THE CLOUD PATTERN TENDED TO IMPROVE WITH EXPANDING COLD TOPS. THE SSMI/S MICROWAVE IMAGE OF 23Z SHOWS THAT AN EYE HAS BUILT IN MID-TROPOSPHERE AND THAT IT IS WELL ALIGNED VERTICALLY WITH THE LOW LEVELS CENTER. THE FINAL INTENSITY IS CONSEQUENTLY INCREASED TO 50 KT.

LITTLE CHANGE IN THE PHILOSOPHY OF TRACK PREDICTION:

OVER THE NEXT DAYS, HABANA SHOULD TRACK GENERALLY EASTWARDS DRIVEN BY THE NEAR EQUATORIAL RIDGE. A TEMPORARY EAST-NORTH-EASTWARD TURN IS SUGGESTED BY SOME GUIDANCES SATURDAY, AS THE RIDGE SHIFTS WESTWARDS THUS MODIFYING THE STEERING FLOW. EARLY NEXT WEEK, THE LOW SHOULD SLOW DOWN IN RELATION WITH THE WEAKENING OF THE NEAR EQUATORIAL RIDGE, BEFORE TURNING GRADUALLY WEST-SOUTH-WESTWARD UNDER THE GROWING INFLUENCE OF THE SUBTROPICAL RIDGE. IT IS NOTED THAT THERE IS A RATHER STRONG UNCERTAINTY ON THE SPEED OF MOVEMENT OF THIS SYSTEM OVER ALMOST THE WHOLE PERIOD (A LOT OF DISCREPANCIES ALONG THE TRACK AMONG THE GUIDANCES).

ENVIRONMENTAL CONDITIONS SHOULD START SOON TO DETERIORATE FIRST IN THE MID-LEVELS THEN IN THE UPPER LEVELS, WITH THE STRENGTHENING OF A WEST-NORTH-WESTERLY SHEAR AHEAD OF A DEEP UPPER TROUGH. AVAILABLE GUIDANCE SUGGEST AN INJECTION OF DRY AIR INTO THE SYSTEM'S INNER CORE SATURDAY, WHICH SHOULD LEAD TO A WEAKENING. AS THE SYSTEM WILL TRACK IN THE SAME DIRECTION AS THE SHEAR CONSTRAINT, IT COULD RESIST A LITTLE BIT LONGER THAN EXPECTED WHILE BENEFITING FROM A GOOD SOUTHEASTWARD DIVERGENCE, WHICH INTRODUCES A SIGNIFICANT UNCERTAINTY IN THE INTENSITY FORECAST.

NEXT WEEK, THE UPPER SHEAR SHOULD ABATE AND THE AVAILABLE GUIDANCE SUGGEST A REAL POTENTIAL FOR REINTENSIFICATION. HOWEVER, THESE LONG TERM RE-INTENSIFICATIONS HAVE ESSENTIALLY BEEN FALSE ALARMS SINCE THE BEGINNING OF THE SEASON AND LOW CONFIDENCE IS GIVEN TO THIS SCENARIO, ESPECIALLY AS THE LOW LEVELS CONVERGENCE WEAKENS ON THE EQUATOR SIDE AND ENVIRONMENT IS EXPECTED TO BE QUITE DRY.