

WTIO30 FMEE 041909

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 5/13/20202021

1.A MODERATE TROPICAL STORM 13 (HABANA)

2.A POSITION 2021/03/04 AT 1800 UTC:

WITHIN 20 NM RADIUS OF POINT 16.6 S / 73.7 E

(SIXTEEN DECIMAL SIX DEGREES SOUTH AND

SEVENTY THREE DECIMAL SEVEN DEGREES EAST)

MOVEMENT: EAST-SOUTH-EAST 11 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 1.5/24 H

4.A CENTRAL PRESSURE: 992 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 45 KT

RADIUS OF MAXIMUM WINDS (RMW): 26 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

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 06 UTC: 16.5 S / 75.3 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 155 SE: 150 SW: 150 NW: 110

34 KT NE: 95 SE: 140 SW: 85 NW: 65

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

24H: 2021/03/05 18 UTC: 16.0 S / 76.6 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM

28 KT NE: 165 SE: 130 SW: 100 NW: 75

34 KT NE: 100 SE: 120 SW: 55 NW: 65

36H: 2021/03/06 06 UTC: 15.6 S / 77.4 E, VENT MAX= 035 KT, MODERATE TROPICAL STORM

28 KT NE: 150 SE: 150 SW: 130 NW: 75

34 KT NE: 85 SE: 85 SW: 85 NW: 65

48H: 2021/03/06 18 UTC: 15.7 S / 78.6 E, VENT MAX= 030 KT, REMNANT LOW

28 KT NE: 140 SE: 85 SW: 75 NW: 65

60H: 2021/03/07 06 UTC: 15.9 S / 79.6 E, VENT MAX= 025 KT, REMNANT LOW

72H: 2021/03/07 18 UTC: 16.3 S / 81.1 E, VENT MAX= 025 KT, REMNANT LOW

2.B LONGER-RANGE OUTLOOK:

96H: 2021/03/08 18 UTC: 17.1 S / 82.7 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 140 SE: 75 SW: 55 NW: 75

120H: 2021/03/09 18 UTC: 17.7 S / 82.1 E, VENT MAX= 035 KT, MODERATE TROPICAL
STORM

28 KT NE: 165 SE: 100 SW: 100 NW: 65

34 KT NE: 75 SE: 65 SW: 45 NW: 55

2.C ADDITIONAL INFORMATION:

T=CI=3.0+

MICROWAVE IMAGES OF THE END OF THE DAY SHOWED THAT AN INNER-CORE BRIEFLY CONSTITUTED ITSELF AROUND 12Z BEFORE SHOWING SIGNS OF WEAKENING AROUND 15Z. A SMAP PASS AROUND 13Z SHOWED MAXIMUM WINDS AT 47 KT. THE INTENSITY HAS RISEN TO 45 KT AS A COMPROMISE BETWEEN THE SMAP DATA AND THE SUBJECTIVE ESTIMATES AT 40 KT.

OVER THE NEXT DAYS, HABANA SHOULD TRACK EAST-SOUTHEASTWARD 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 SOUTH-WESTWARD UNDER THE GROWING INFLUENCE OF THE SUBTROPICAL RIDGE.

HABANA IS EXPECTED TO KEEP INTENSIFYING IN THE NEXT HOURS WHILE BENEFITING FROM CONDUCIVE CONDITIONS : EXCELLENT DIVERGENCE IN THE SOUTH-EASTERN QUADRANT AND VERY GOOD SURFACE CONVERGENCE ON THE EQUATORIAL SIDE. FRIDAY, ENVIRONMENTAL CONDITIONS SHOULD BEGIN 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.