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

0.A WARNING NUMBER: 4/13/20202021
1.A MODERATE TROPICAL STORM 13 (HABANA)

2.A POSITION 2021/03/04 AT 1200 UTC:
WITHIN 20 NM RADIUS OF POINT 16.4 S / 72.5 E
(SIXTEEN DECIMAL FOUR DEGREES SOUTH AND
SEVENTY TWO DECIMAL FIVE DEGREES EAST)
MOVEMENT: EAST 15 KT

3.A DVORAK ANALYSIS: 2.5/2.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 996 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: 335 SE: 75 SW: 75 NW: 280
34 KT NE: 95 SE: 45 SW: 45 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 00 UTC: 16.5 S / 74.5 E, VENT MAX= 045 KT, MODERATE TROPICAL STORM
28 KT NE: 205 SE: 75 SW: 100 NW: 130
34 KT NE: 100 SE: 35 SW: 55 NW: 85

24H: 2021/03/05 12 UTC: 16.3 S / 76.3 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 195 SE: 75 SW: 120 NW: 140
34 KT NE: 95 SE: 65 SW: 65 NW: 55
48 KT NE: 55 SE: 55 SW: 55 NW: 35

36H: 2021/03/06 00 UTC: 15.9 S / 77.4 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM
28 KT NE: 165 SE: 75 SW: 110 NW: 110
34 KT NE: 85 SE: 55 SW: 65 NW: 55
48 KT NE: 55 SE: 45 SW: 55 NW: 35

48H: 2021/03/06 12 UTC: 15.6 S / 78.4 E, VENT MAX= 040 KT, MODERATE TROPICAL STORM
28 KT NE: 140 SE: 55 SW: 85 NW: 110
34 KT NE: 75 SE: 30 SW: 35 NW: 35

60H: 2021/03/07 00 UTC: 15.8 S / 79.7 E, VENT MAX= 030 KT, FILLING UP
28 KT NE: 150 SE: 85 SW: 85 NW: 100

72H: 2021/03/07 12 UTC: 16.2 S / 80.9 E, VENT MAX= 025 KT, FILLING UP

2.B LONGER-RANGE OUTLOOK:
96H: 2021/03/08 12 UTC: 17.2 S / 82.9 E, VENT MAX= 030 KT, TROPICAL DEPRESSION
28 KT NE: 140 SE: 75 SW: 55 NW: 75

120H: 2021/03/09 12 UTC: 17.7 S / 81.8 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=2.5+

OVER THE LAST 6 HOURS, CONVECTION DEVELOPED SIGNIFICANTLY AROUND AND CLOSE TO THE CIRCULATION CENTER. ON THE LAST SAT IMAGES, A SMALL CORE SEEMS TO STRENGTHEN WHILE ISOLATING FROM THE REST OF THE CONVECTION. THE 37GHZ AMSR2 0854Z IMAGE ILLUSTRATES THE STRENGTHENING OF THE STORM'S INNER CORE. GIVEN THESE ELEMENTS, THE SYSTEM HAS BEEN NAMED HABANA BY MAURITIUS MET SERVICE AT 11Z.

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.