

WTIO30 FMEE 020614

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 4/10/20182019

1.A MODERATE TROPICAL STORM 10 (HALEH)

2.A POSITION 2019/03/02 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 12.2 S / 75.2 E
(TWELVE DECIMAL TWO DEGREES SOUTH AND
SEVENTY FIVE DECIMAL TWO DEGREES EAST)
MOVEMENT: SOUTH 8 KT

3.A DVORAK ANALYSIS: 2.5/2.5/S 0.0/0 H

4.A CENTRAL PRESSURE: 997 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 35 KT
RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 90 SE: 460 SW: 220 NW: 90
34 KT NE: SE: 220 SW: 190 NW:

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1006 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/03/02 18 UTC: 13.4 S / 73.9 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

24H: 2019/03/03 06 UTC: 14.7 S / 73.2 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

36H: 2019/03/03 18 UTC: 16.2 S / 72.9 E, VENT MAX= 055 KT, SEVERE TROPICAL STORM

48H: 2019/03/04 06 UTC: 17.3 S / 72.4 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

60H: 2019/03/04 18 UTC: 18.4 S / 71.7 E, VENT MAX= 070 KT, TROPICAL CYCLONE

72H: 2019/03/05 06 UTC: 19.3 S / 71.1 E, VENT MAX= 075 KT, TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK:

96H: 2019/03/06 06 UTC: 20.9 S / 70.1 E, VENT MAX= 080 KT, TROPICAL CYCLONE

120H: 2019/03/07 06 UTC: 23.6 S / 69.1 E, VENT MAX= 075 KT, TROPICAL CYCLONE

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

LAST MICRO-WAVES DATA SHOW A CLOSE EYE IN 37RGB, AS THE SYSTEM HAS
INTENSIFY, SO IT WAS NAMED AT 05Z HALEH. THE C-ASCAT DATA OF 0430Z CONFIRM
GALE FORCE WIND IN THE SOUTHERN SEMI-CIRCLE OF THE CIRCULATION.
DEEP CONVECTION HAS STILL A FLUCTUATING NATURE, BUT LAST DATA IN 89 GHZ

OF AMSU AT 0408Z SEEMS TO DEPICT A BEGGING OF CURVATURE PATTERN IN UPPER LEVEL.

THE SYSTEM IS MOVING ON THE NORTH-WESTERN EDGE OF THE SUBTROPICAL ANTICYCLONE. THE STEERING FLOW IS THEN EXPECTED TO BEND NORTHWARD AS THE LOW DEEPEN AND A WEAKNESS DEVELOPS IN THE SUBTROPICAL RIDGE UNDER THE INFLUENCE OF THE AFOREMENTIONED TROUGH. AT LONGER RANGE, THE SYSTEM MAY MOVE SOUTH-WESTWARD AHEAD OF A NEW SUBTROPICAL RIDGE. THIS SCENARIO REMAINS BASED ON THE CONSENSUS OF THE MAIN RELIABLE MODELS. THERE IS SOME REASONABLE SPREAD AMONGST THE GUIDANCE WITH VERY GOOD AGREEMENT BETWEEN LATEST OUTPUTS FROM GFS AND IFS AND UKMO AS AN OUTLIER TO THE EAST.

REGARDS THE INTENSITY FORECAST, THE SYSTEM IS LIKELY TO BENEFIT FROM IMPROVING ENVIRONMENTAL CONDITIONS TODAY. RI INDEX STILL SUGGEST THAT A 25 KT INCREASE IS POSSIBLE UP TO 18Z TONIGHT. THE OFFICIAL FORECAST REMAINS BELOW THAT RATE AT THIS TIME. AFTER THAT TIME, THE RATE OF INTENSIFICATION IS SLOW DOWN MAINLY DUE TO MID LEVEL SUBTROPICAL DRY AIR INGESTION WRAPPING FROM THE WESTERN AND NORTHERN CIRCULATION. SOME SIGNIFICANT OCEANIC CONTAIN MAY OFFSET THIS NEGATIVE THERMODYNAMICS EFFECTS.

FROM MONDAY AND BEYOND, THE EXPECTED ENVIRONMENTAL CONDITION IN THE LAST AVAILABLE MODELS REMAINS FAVORABLE IN UPPER LEVELS WITH GOOD DIVERGENCE AHEAD OF THE TROUGH INVOLVING LESS INFLUENCE FROM THE DRY MID LEVEL AIR LOCATED JUST NORTH OF THE SYSTEM.