

Direction Interrégionale pour l'Océan Indien 50, Boulevard du Chaudron 97490 Sainte-Clotilde Tél : 0262 92 11 00 Fax Exploitation : 0262 92 11 48 Fax Direction : 0262 92 11 47



WTIO30 FMEE 180633

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

0.A WARNING NUMBER: 15/5/20152016 1.A TROPICAL CYCLONE 5 (URIAH)

## 2.A POSITION 2016/02/18 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 21.3 S / 78.7 E

(TWENTY ONE DECIMAL THREE DEGREES SOUTH AND SEVENTY EIGHT DECIMAL

SEVEN DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-WEST 12 KT

3.A DVORAK ANALYSIS: 5.0/5.5/W 1.0/6 H

4.A CENTRAL PRESSURE: 945 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 85 KT RADIUS OF MAXIMUM WINDS (RMW) :28 KM

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

28 KT NE: 480 SE: 700 SW: 480 NW: 280 34 KT NE: 240 SE: 330 SW: 240 NW: 130 48 KT NE: 150 SE: 180 SW: 150 NW: 70 64 KT NE: 70 SE: 80 SW: 70 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

## 1.B FORECASTS:

12H: 2016/02/18 18 UTC: 22.5 S / 78.2 E, MAX WIND=065 KT, TROPICAL CYCLONE

24H: 2016/02/19 06 UTC: 23.4 S / 78.1 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

36H: 2016/02/19 18 UTC: 23.7 S / 77.8 E, MAX WIND=045 KT, MODERATE TROPICAL

**STORM** 

48H: 2016/02/20 06 UTC: 23.7 S / 77.5 E, MAX WIND=045 KT, POST-TROPICAL

**DEPRESSION** 

60H: 2016/02/20 18 UTC: 23.9 S / 77.5 E, MAX WIND=045 KT, POST-TROPICAL

**DEPRESSION** 

72H: 2016/02/21 06 UTC: 24.6 S / 77.6 E, MAX WIND=045 KT, POST-TROPICAL

**DEPRESSION** 

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

96H: 2016/02/22 06 UTC: 27.6 S / 78.4 E, MAX WIND=040 KT, POST-TROPICAL

**DEPRESSION** 

120H: 2016/02/23 06 UTC: 31.7 S / 79.4 E, MAX WIND=040 KT, POST-TROPICAL

**DEPRESSION** 

### 2.C ADDITIONAL INFORMATION:

OVER THE LAST 6 HOURS, URIAH KEPT ON WEAKENING. THE NORTH-WESTERLY SHEAR INFLUENCE IS MORE AND MORE VISIBLE ON THE IR AND VIS SAT IMAGERY. MOREOVER, THIS UPPER LEVEL FLOW BRINGS DRIER AIR IN THE NORTHERN SEMICIRCLE, WHICH CONTRIBUTE TO WEAKEN CONVECTION, AS SEEN ON THE WV IMAGES. SSMIS 2232Z MICROWAVE IMAGES SHOW THE TYPICAL PATTERN OF AN ONGOING EYE REPLACEMENT CYCLE. THE JOINED INFLUENCE OF THESE INTERNAL CHANGES AND THE LESS CONDUCIVE CONDITIONS EXPLAIN A QUICK WEAKENING. THE 3 HOURS AVERAGED DT IS AT 4.5-, THE FT IS AT 5.0- TO ABIDE BY THE 6H DVORAK CONSTRAINT. CONSIDERING THE FAST WEAKENING TREND, THE INERTIAL CONSTRAINT ON CI HAS BEEN DECREASED.

TODAY, WITH THE REBUILDING OF A MID-LEVEL RIDGE IN THE EAST, THE SYSTEM WILL CONTINUE TO BEND SOUTHWARD AND TO SLOW DOWN.
FRIDAY AND SATURDAY, URIAH IS LIKELY TO REMAIN ALMOST STATIONARY BECAUSE OF A VERY WEAK WIND FIELD IN ITS SOUTH. DURING THE NIGHT FROM SATURDAY TO SUNDAY, THE MAJORITY OF THE ENSEMBLE MEMBERS AND THE OTHER NWP MODELS FORECAST A COMEBACK TO A SOUTH TO SOUTH-SOUTHEASTWARD TRACK STEERED BY A BUILDING RIDGE IN ITS NORTHEAST AND A LOW LEVEL TROUGH IN ITS SOUTH-WEST.

ON THIS TRACK, URIAH IS NOW MOVING TOWARDS LESS ENERGETIC WATERS. ON FRIDAY AND SATURDAY, THE SLOW MOVEMENT IS LIKELY TO COOL THE LINDERLYING SST

FROM FRIDAY, THE UPPER LEVEL CONDITIONS ARE FORECAST TO BECOME PROGRESSIVELY LESS CONDUCIVE WITH THE INCREASING OF THE WEST-NORTH-WESTERLY VWS, ESPECIALLY ON SATURDAY WITH THE ARRIVAL OF AN UPPER TROUGH.

THEN FROM FRIDAY, THE WEAKENING TREND SHOULD ACCELERATE. THUS FROM SATURDAY, OVER MARGINAL OCEAN HEAT CONTENT SOUTH OF 26S AND WITH THE STRENGTHENING OF THE WESTERLY UPPER LEVEL WINDS, THE SYSTEM IS LIKELY TO LOSE PROGRESSIVELY ITS PURELY TROPICAL CHARACTERISTICS.