

WTIO30 FMEE 200638

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

0.A WARNING NUMBER: 16/4/20182019

1.A TROPICAL CYCLONE 4 (KENANGA)

2.A POSITION 2018/12/20 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 16.6 S / 81.6 E

(SIXTEEN DECIMAL SIX DEGREES SOUTH AND EIGHTY ONE DECIMAL SIX DEGREES EAST)

MOVEMENT : WEST 3 KT

3.A DVORAK ANALYSIS: 4.5/5.0/W 1.0/12 H

4.A CENTRAL PRESSURE: 965 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 80 KT

RADIUS OF MAXIMUM WINDS (RMW) :37 KM

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

28 KT NE: 220 SE: 460 SW: 370 NW: 220

34 KT NE: 170 SE: 240 SW: 220 NW: 170

48 KT NE: 110 SE: 140 SW: 140 NW: 110

64 KT NE: 70 SE: 80 SW: 80 NW: 70

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1011 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/12/20 18 UTC: 16.5 S / 80.9 E, MAX WIND=070 KT, TROPICAL CYCLONE

24H: 2018/12/21 06 UTC: 16.4 S / 80.0 E, MAX WIND=065 KT, TROPICAL CYCLONE

36H: 2018/12/21 18 UTC: 16.6 S / 79.0 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

48H: 2018/12/22 06 UTC: 16.9 S / 78.3 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

60H: 2018/12/22 18 UTC: 17.5 S / 77.5 E, MAX WIND=050 KT, SEVERE TROPICAL STORM

72H: 2018/12/23 06 UTC: 18.0 S / 76.6 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/12/24 06 UTC: 19.2 S / 75.4 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

120H: 2018/12/25 06 UTC: 20.7 S / 73.7 E, MAX WIND=030 KT, FILLING UP

2.C ADDITIONAL INFORMATION:

T=4.5- ; CI=5.0+

OVER THE LAST 6 HOURS, KENANGA CLOUD PATTERN HAS DETERIORATED. THE

CONVECTIVE RING IS WARMER AND A WEAKNESS IS APPARENT IN INFRARED IMAGERY ON THE EASTERN SIDE. THIS BREACH MAY BE RELATED TO THE ONE VISIBLE IN LAST MICROWAVE IMAGERY IN THE WESTERN SEMI-CIRCLE IN 89GHZ. THE WEAKENING TREND IS GOING ON, LIKELY DUE TO THE PRESENCE OF THE WESTERLY CONSTRAINT IN MID TROPOSPHERE, AND THE LOSS OF UNDERNEATH OCEANIC POTENTIAL.

WHILE BUMPING INTO SUBTROPICAL HIGH GEOPOTENTIALS KENANGA SLOWED DOWN AND BEGAN TO TRACK WESTWARD. WITH THE GRADUAL EASTWARD SHIFT OF THE RIDGE, THE SYSTEM SHOULD TURN SOUTH-WESTWARD FROM FRIDAY. THE MAIN NWP GUIDANCES ARE MOSTLY IN GOOD AGREEMENT WITH THIS SCENARIO, BUT DIFFER ON TRACK SPEED AND BEHAVIOUR AT LONGER RANGE. INDEED CILIDA DESCENT IS LIKELY TO LURE KENANGA SOUTHWARD AND THUS DECREASE FORECAST CONFIDENCE. THE CURRENT FORECAST IS BASED ON A CONSENSUS OF MAIN DETERMINISTIC AND ENSEMBLE MODELS.

TODAY, THE UPPER CONDITIONS SHOULD CONTINUE TO DECAY WITH A WEAK TO MODERATE SOUTHWESTERLY SHEAR ESTABLISHING IN THE SOUTH OF THE SYSTEM. THIS HOSTILE CONSTRAINT IS LIKELY TO TRIGGER DRY AIR INTRUSIONS ESPECIALLY TOMORROW AND SATURDAY. AT LONGER RANGE, OCEANIC POTENTIAL WILL DEFINITELY BECOME INSUFFICIENT SOUTH OF 18S. THE LOW SHOULD THEN MERGE SLOWLY WITH THE VAST SURFACE TROUGH OF CILIDA.