

WTIO30 FMEE 171230

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

0.A WARNING NUMBER: 5/4/20182019

1.A SEVERE TROPICAL STORM 4 (KENANGA)

2.A POSITION 2018/12/17 AT 1200 UTC:

WITHIN 21 NM RADIUS OF POINT 12.9 S / 86.6 E

(TWELVE DECIMAL NINE DEGREES SOUTH AND EIGHTY SIX DECIMAL SIX DEGREES EAST)

MOVEMENT : WEST-SOUTH-WEST 11 KT

3.A DVORAK ANALYSIS: 3.5/3.5/D 0.5/12 H

4.A CENTRAL PRESSURE: 986 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 50 KT

RADIUS OF MAXIMUM WINDS (RMW) :41 KM

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

28 KT NE: 190 SE: 320 SW: 320 NW: 140

34 KT NE: 90 SE: 140 SW: 90 NW: 90

48 KT NE: 40 SE: 40 SW: 40 NW: 40

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2018/12/18 00 UTC: 14.1 S / 84.9 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

24H: 2018/12/18 12 UTC: 15.4 S / 83.7 E, MAX WIND=065 KT, TROPICAL CYCLONE

36H: 2018/12/19 00 UTC: 16.3 S / 82.8 E, MAX WIND=070 KT, TROPICAL CYCLONE

48H: 2018/12/19 12 UTC: 16.8 S / 81.9 E, MAX WIND=070 KT, TROPICAL CYCLONE

60H: 2018/12/20 00 UTC: 16.9 S / 81.0 E, MAX WIND=060 KT, SEVERE TROPICAL STORM

72H: 2018/12/20 12 UTC: 17.0 S / 80.0 E, MAX WIND=055 KT, SEVERE TROPICAL STORM

2.B LONGER-RANGE OUTLOOK :

96H: 2018/12/21 12 UTC: 17.2 S / 78.1 E, MAX WIND=045 KT, MODERATE TROPICAL STORM

120H: 2018/12/22 12 UTC: 18.4 S / 76.9 E, MAX WIND=040 KT, MODERATE TROPICAL STORM

2.C ADDITIONAL INFORMATION:

T=CI=3.5

KENANGA'S CLOUD PATTERN REMAINS IN SHEARED PATTERN BUT THIS ONE WILL

CHANGE TO CENTRAL DENSE OVERCAST PATTERN. IN AN WIND SHEAR ENVIRONMENT ACCORDING TO THE CIMSS DATA, THE SYSTEM WILL RESIST DUE TO ITS DISPLACEMENT WHICH WILL ACCELERATE SOON. THE THRESHOLD OF SEVERE TROPICAL STORM HAS BEEN REACHED IN THE LAST 6 HOURS AND DEEP CONVECTION PERSISTS WELL, APPROACHING THIS CENTER. THE ABSENCE OF MEASUREMENTS DON'T ALLOW A GOOD ESTIMATION OF WIND EXTENSIONS.

NO CHANGE IN FORECASTING : KENANGA IS EXPECTED TO MAINTAIN ITS SOUTHWEST TRACK UNTIL WEDNESDAY. BY WEDNESDAY, A WEAKENING PHASE WILL CAUSE THE STEERING FLOW TO COME BACK DOWN WITHIN LOWER LEVELS WHICH SHOULD ORIENT THE KENANGA'S TRACK TOWARDS THE WEST, ACCOMPANIED BY A SLOWDOWN. THE ENSEMBLIST FORECASTS OF THE ECMWF MODEL TENDS A LITTLE MORE TOWARDS THE CONSENSUS OF THE OTHER MODELS, WITH THE EXCEPTION OF THE DETERMINISTIC VERSION, WHICH STILL HAS A MORE WESTERN COMPONENT IN THE TRACK. THE CMRS FORECASTS REMAINS ON A WESTERLY TRACK FOLLOWED BY A SOUTH-WESTERLY ORIENTATION FROM FRIDAY.

KENANGA'S SPEED ALLOW IT TO ESCAPE THE EFFECTS OF VERTICAL WIND SHEAR. THE SYSTEM SHOULD THEREFORE GRADUALLY INTENSIFY UNDER FAVOURABLE CONDITIONS UNTIL WEDNESDAY. THE TROPICAL CYCLONE STAGE IS CURRENTLY FORECASTED AS THE INTENSITY PEAK FROM WEDNESDAY. LATER, THE UPPER CONDITIONS START DETERIORATING AND ALTHOUGH IT FLOWS OVER WATERS THAT STILL HAVE SUFFICIENT OCEANIC POTENTIAL NORTH OF 18°S, A SLOW WEAKENING OF THE SYSTEM CONTINUES TO BE A PRIORITY.