

WTIO30 FMEE 250629

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

0.A WARNING NUMBER: 11/14/20182019

1.A INTENSE TROPICAL CYCLONE 14 (KENNETH)

2.A POSITION 2019/04/25 AT 0600 UTC:

WITHIN 10 NM RADIUS OF POINT 11.7 S / 41.8 E  
(ELEVEN DECIMAL SEVEN DEGREES SOUTH AND  
FORTY ONE DECIMAL EIGHT DEGREES EAST)  
MOVEMENT: WEST-SOUTH-WEST 8 KT

3.A DVORAK ANALYSIS: 6.5/6.5/D 2.5/24 H

4.A CENTRAL PRESSURE: 934 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 115 KT  
RADIUS OF MAXIMUM WINDS (RMW): 9 KM

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

28 KT NE: 110 SE: 170 SW: 190 NW: 170  
34 KT NE: 90 SE: 110 SW: 110 NW: 110  
48 KT NE: 60 SE: 60 SW: 60 NW: 60  
64 KT NE: 40 SE: 40 SW: 40 NW: 40

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1009 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/04/25 18 UTC: 11.9 S / 40.2 E, VENT MAX= 070 KT, TROPICAL CYCLONE  
24H: 2019/04/26 06 UTC: 12.3 S / 39.4 E, VENT MAX= 050 KT, OVERLAND DEPRESSION  
36H: 2019/04/26 18 UTC: 12.9 S / 39.4 E, VENT MAX= 030 KT, OVERLAND DEPRESSION  
48H: 2019/04/27 06 UTC: 13.3 S / 39.6 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

T=CI=6.5+

OVER THE LAST SIX HOURS, CLOUD TOPS SURROUNDING KENNETH'S PINHOLE EYE HAVE CONTINUED TO COOL, THUS INCREASING FURTHER THE INTENSITY ESTIMATES. THE CURRENT INTENSITY ANALYSIS IS BASED ON A 3-HRS MEAN OF THE LAST DVORAK ANALYSIS, BUT SOME IMAGES HAVE TEMPORARILY REACHED A 7.0 T-NUMBER. THE 0201Z AND 0105Z MW 89GHZ SSMIS IMAGES SHOW A VERY COMPACT AND SOLID INNER-CORE. HOWEVER, AN OUTER BAND OF CONVECTION IS

BEGINNING TO WRAP AROUND THE NORTHERN SEMI-CIRCLE WHICH, COMBINED WITH THE RAPID INTENSIFICATION OBSERVED OVER THE LAST 12HRS, SUGGEST THAT KENNETH IS GOING THROUGH THE FIRST STAGE OF AN EYEWALL REPLACEMENT CYCLE (ERC).

NO SIGNIFICANT CHANGE IN THE TRACK FORECAST, KENNETH MAINTAINS A GENERAL WES-SOUTH-WESTWARD MOTION ON THE NORTHERN EDGE OF A BUILDING LOW TO MID LEVELS SUBTROPICAL RIDGE. ON THE CURRENT TRACK, A LANDFALL ON THE NORTH MOZAMBICAN COAST IS EXPECTED BY THE END OF THE AFTERNOON OR IN THE EARLY EVENING (MOZAMBIQUE'S TIME), 100 TO 150KM NORTH OF PEMBA.

IN THE MEDIUM TERM, THE TRACK OF THE RESIDUAL OVERLAND LOW IS UNCERTAIN. IT COULD TRACK OVER THE NORTHERN MOZAMBICAN TERRITORIES BEFORE COMING BACK OVER SEA SOMETIME IN THE BEGINNING OF NEXT WEEK. THIS SCENARIO REMAINS VERY UNCERTAIN AS OF YET AND HAS THUS NOT BEEN DISPLAYED IN THE OFFICIAL TRACK FORECAST.

GIVEN THE RECENT TREND, KENNETH HAS PROBABLY REACHED ITS PEAK INTENSITY OVER THE LAST HOURS. THE VERY LAST IR IMAGES SHOW THE BEGINNING OF A DEGRADATION OF THE SAT PRESENTATION, PROBABLY LINKED TO THE ERC. KENNETH'S INTENSITY IS THUS EXPECTED TO WEAKEN SLIGHTLY BEFORE LANDFALL, WHILE REMAINING OVER 100KT. THE RADIUS OF DESTRUCTIVE WINDS IS ALSO EXPECTED TO INCREASE SIGNIFICANTLY, WHICH SHOULD WIDEN THE AREA OF MAXIMUM DANGER, BOTH IN TERMS OF STRONG WINDS AND OF MARINE STORM SURGE.

KENNETH IS THEREFORE AN EXTREMELY DANGEROUS SYSTEM, WHICH WILL SEVERELY IMPACT THE REGIONS NORTH OF PEMBA. THE SYSTEM WILL ALSO GENERATE A LIFE-THREATENING STORM SURGE WHEN LANDING ON THE MOZAMBICAN COASTS, WHICH CAN REACH BETWEEN 3 AND 5M IN SOME AREAS SOUTH OF THE LANDFALL, TO WHICH MUST BE ADDED THE WAVE AND CYCLONIC SWELL RUN-UP AND THE PHENOMENON OF HEAVY RAINFALL, WHICH CAN CAUSE FLOODING IN MOZAMBIQUE.