

WTIO30 FMEE 290016

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 22/4/20202021

1.A MODERATE TROPICAL STORM 4 (CHALANE)

2.A POSITION 2020/12/29 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 19.7 S / 41.0 E

(NINETEEN DECIMAL SEVEN DEGREES SOUTH AND  
FORTY ONE DECIMAL ZERO DEGREES EAST)

MOVEMENT: WEST 8 KT

3.A DVORAK ANALYSIS: 3.0/3.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 995 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 40 KT

RADIUS OF MAXIMUM WINDS (RMW): 46 KM

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

28 KT NE: 165 SE: 150 SW: 95 NW: 0

34 KT NE: 55 SE: 55 SW: 55 NW: 0

48 KT NE: 0 SE: 0 SW: 0 NW: 0

64 KT NE: 0 SE: 0 SW: 0 NW: 0

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 400 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2020/12/29 12 UTC: 19.7 S / 39.1 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 130 SE: 155 SW: 150 NW: 130

34 KT NE: 85 SE: 85 SW: 120 NW: 85

48 KT NE: 55 SE: 75 SW: 75 NW: 55

24H: 2020/12/30 00 UTC: 19.5 S / 36.7 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

28 KT NE: 150 SE: 185 SW: 140 NW: 100

34 KT NE: 95 SE: 110 SW: 120 NW: 95

48 KT NE: 65 SE: 85 SW: 65 NW: 65

36H: 2020/12/30 12 UTC: 19.5 S / 34.3 E, VENT MAX= 040 KT, OVERLAND DEPRESSION

28 KT NE: 230 SE: 185 SW: 220 NW: 75

34 KT NE: 55 SE: 95 SW: 35 NW: 65

48H: 2020/12/31 00 UTC: 19.3 S / 31.9 E, VENT MAX= 025 KT, OVERLAND DEPRESSION

## 2.B LONGER-RANGE OUTLOOK:

NIL

## 2.C ADDITIONAL INFORMATION:

T=CI=3.0

OVER THE PAST 6 HOURS, THE CURVED BAND CLOUD PATTERN OF CHALANE HAS BEEN MAINTAINED WITH INCREASED CONVECTIVE ACTIVITY CLOSE TO THE CENTER. A CENTRAL DENSE OVERCAST (CDO) PATTERN MAY BE EXPECTED SOON. SHORTLY AFTER THE PREVIOUS BULLETIN, THE 1817UTC ASCAT DATA ALLOWED TO VALIDATE THE 35KT IN THE SOUTH-EAST PART OF THE SYSTEM. CURRENTLY, THE DVORAK ANALYSIS ALLOWS TO NOTE AN INTENSITY WHICH CONTINUES TO INCREASE, LEAVING AN ESTIMATE OF MAXIMUM WINDS OF THE ORDER OF 40KT.

NO CHANGE IN TERMS OF FORECAST, THE SCENARIO OF A RATHER FAST MOVEMENT DRIVEN BY THE RIDGE OF LOW AND MEDIUM TROPOSPHERE INSTALLED ON THE SOUTH OF THE CHANNEL, IS MAINTAINED. CHALANE WILL THUS CONTINUE ITS WESTWARD MOVEMENT AND WILL EVENTUALLY TOUCH MOZAMBIQUE. THE MODELS ARE IN FAIRLY GOOD AGREEMENT ON THE DIRECTION AND IN TERMS OF SPEED OF MOVEMENT, THE MODELS THAT WERE A LITTLE SLOWER HAVE ALSO ACCELERATED THEIR TRACK. THE METEOR WILL LAND IN ABOUT 30H ON THE MOZAMBIKAN COASTS.

THE ENVIRONMENTAL CONDITIONS THUS REMAIN FAVORABLE FOR THE DEVELOPMENT OF THE SYSTEM: MODERATE SHEAR, FAVORABLE OCEANIC POTENTIAL, GOOD FEEDING OF THE MONSOON FLOW WHICH GOES DOWN TO THE MIDDLE OF THE CHANNEL. THE SCENARIO OF A REGULAR INTENSIFICATION IS THUS MAINTAINED BY THE CMRS IN AGREEMENT WITH THE EUROPEAN MODELS. CHALANE SHOULD THUS REACH MOZAMBIQUE AT THE STAGE OF A TROPICAL CYCLONE IN NEARLY 30H.

ACCORDING TO THIS SCENARIO, THE THREAT REPRESENTED BY CHALANE REMAINS VERY REAL, CAUSING STRONG WINDS, HEAVY RAINFALL AS WELL AS CYCLONIC SWELL PHENOMENA AND SURGES MAINLY IN THE SOUTH OF THE LANDING AREA. THE INHABITANTS OF THE REGION AROUND BEIRA, I.E. FROM THE TOWN OF CHINDE IN THE NORTH AND INHASSORO IN THE SOUTH, ARE INVITED TO KEEP THEMSELVES INFORMED OF THE EVOLUTION OF THE SITUATION.