

WTIO30 FMEE 151214

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 13/4/20212022

1.A MODERATE TROPICAL STORM 4 (DUMAKO)

2.A POSITION 2022/02/15 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 16.7 S / 49.9 E

(SIXTEEN DECIMAL SEVEN DEGREES SOUTH AND
FORTY NINE DECIMAL NINE DEGREES EAST)

MOVEMENT: WEST 10 KT

3.A DVORAK ANALYSIS: 2.5/2.5/S 0.0/24 H

4.A CENTRAL PRESSURE: 997 HPA

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

RADIUS OF MAXIMUM WINDS (RMW): NIL

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

28 KT NE: 0 SE: 130 SW: 185 NW: 75

34 KT NE: 0 SE: 95 SW: 95 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: 2022/02/16 00 UTC: 16.5 S / 48.3 E, VENT MAX= 030 KT, OVERLAND DEPRESSION

28 KT NE: 0 SE: 0 SW: 110 NW: 0

24H: 2022/02/16 12 UTC: 16.1 S / 45.9 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

36H: 2022/02/17 00 UTC: 16.2 S / 43.6 E, VENT MAX= 020 KT, REMNANT LOW

48H: 2022/02/17 12 UTC: 16.4 S / 41.3 E, VENT MAX= 025 KT, REMNANT LOW

60H: 2022/02/18 00 UTC: 16.3 S / 39.5 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

72H: 2022/02/18 12 UTC: 15.9 S / 37.4 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:

NIL

2.C ADDITIONAL INFORMATION:

T=CI=2.5+

DURING THE LAST HOURS, WITH THE APPROACH OF THE MALAGASY COAST, THE

CONVECTION HAS WEAKENED. THE SYSTEM IS LANDING ON THE EAST COAST, PASSING OVER THE NORTH OF SAINTE-MARIE ISLAND, TO REACH THE COAST SOUTH OF ANTANAMBE IN THE NEXT HOURS.

NO CHANGE IN TERMS OF TRAJECTORY FORECAST, THE SUBTROPICAL RIDGE DEFINES THE MAIN STEERING FLOW OF DUMAKO. WITH THE SWELLING OF THIS RIDGE TO THE SOUTH, THE TRAJECTORY HAS STRAIGHTENED SLIGHTLY TO THE WEST-NORTHWEST BEFORE LANDING. BY MID-WEEK, THE LATEST MODEL OUTPUT STILL SUGGESTS AN OUTFLOW OF THE SYSTEM IN THE NORTHERN MOZAMBIQUE CHANNEL, IN A WEAKENED FORM. THE REMNANTS OF THIS CIRCULATION COULD MOVE TOWARDS THE MOZAMBIQUE COAST BY THURSDAY.

DUMAKOA HAS LANDED AS A MODERATE TROPICAL STORM. WHEN IT COMES OUT IN THE CHANNEL, ACCORDING TO THE LAST NUMERICAL MODELS, THE RISK OF A NEW INTENSIFICATION SEEMS AGAIN MARGINAL. THIS SCENARIO REMAINS VERY DEPENDENT ON THE PERSISTENCE OF A MARKED CIRCULATION DESPITE THE CROSSING OF THE BIG ISLAND.

EXPECTED IMPACTS ON MADAGASCAR:

THE DETERIORATION OF WEATHER CONDITIONS IS UNDERWAY ON THE EAST COAST OF MADAGASCAR AND IS EXPECTED TO STRENGTHEN, ESPECIALLY IN THE AREA SOUTH OF THE ISLAND OF SAINTE MARIE.

1/ HEAVY RAINFALL: 150-250MM ON THE COAST, WHICH MAY EXCEED 300MM ON THE RELIEF IN 24 HOURS

2/ STRONG WIND GUSTS LOCALLY EXCEEDING 100KM/H.