

WTIO30 FMEE 111225

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 12/11/20182019

1.A INTENSE TROPICAL CYCLONE 11 (IDAI)

2.A POSITION 2019/03/11 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 17.6 S / 42.7 E

(SEVENTEEN DECIMAL SIX DEGREES SOUTH AND
FORTY TWO DECIMAL SEVEN DEGREES EAST)

MOVEMENT: SOUTH-WEST 3 KT

3.A DVORAK ANALYSIS: 5.5/5.5/D 2.0/24 H

4.A CENTRAL PRESSURE: 955 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 95 KT

RADIUS OF MAXIMUM WINDS (RMW): 19 KM

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

28 KT NE: 200 SE: 190 SW: 220 NW: 200

34 KT NE: 160 SE: 150 SW: 160 NW: 160

48 KT NE: 90 SE: 80 SW: 90 NW: 90

64 KT NE: 60 SE: 60 SW: 60 NW: 60

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1010 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/03/12 00 UTC: 18.1 S / 42.4 E, VENT MAX= 105 KT, INTENSE TROPICAL
CYCLONE

24H: 2019/03/12 12 UTC: 19.0 S / 41.8 E, VENT MAX= 115 KT, INTENSE TROPICAL
CYCLONE

36H: 2019/03/13 00 UTC: 19.4 S / 40.8 E, VENT MAX= 120 KT, VERY INTENSE TROPICAL
CYCLONE

48H: 2019/03/13 12 UTC: 19.8 S / 39.7 E, VENT MAX= 115 KT, INTENSE TROPICAL
CYCLONE

60H: 2019/03/14 00 UTC: 20.0 S / 38.4 E, VENT MAX= 105 KT, INTENSE TROPICAL
CYCLONE

72H: 2019/03/14 12 UTC: 19.9 S / 37.2 E, VENT MAX= 105 KT, INTENSE TROPICAL
CYCLONE

2.B LONGER-RANGE OUTLOOK:

96H: 2019/03/15 12 UTC: 19.0 S / 35.5 E, VENT MAX= 085 KT, TROPICAL CYCLONE

120H: 2019/03/16 12 UTC: 17.9 S / 34.8 E, VENT MAX= 035 KT, OVERLAND DEPRESSION

2.C ADDITIONAL INFORMATION:

T=CI=5.5+

OVER THE LAST 6 HOURS, IDAI'S EYE BECAME MORE AND MORE SYMMETRICAL AND CLEARER ON THE IR AND VIS SATELLITE IMAGERY. THE LAST VIS IMAGES ARE PARTICULARLY IMPRESSIVE. HOWEVER, THE DVORAK ESTIMATES DID NOT INCREASE MUCH, ESPECIALLY BECAUSE OF RELATIVELY WARMER CLOUD TOPS THAN THIS MORNING, WHICH COULD BE LINKED TO DIURNAL CYCLE PROCESSES (CF CIMSS' DIURNAL CLOCK).

IDAI BEGINS TO ACCELERATE SOUTHWESTWARD WITH THE STRENGTHENING INFLUENCE OF A SUBTROPICAL RIDGE LOCATED IN THE SOUTH-WEST. FROM WEDNESDAY, THE TRACK SHOULD BEND WESTWARD. THE MAJORITY OF THE AVAILABLE MODELS ALSO SUGGEST THAT THIS TURN COULD CONTINUE ON THURSDAY, GIVING A NORTH-WESTWARD MOTION TO IDAI AT THE MOMENT OF ITS IMPACT ON THE MOZAMBICAN COASTS. ONLY IFS (ECMWF) SUGGEST A LESS SHARPER TURN WITH A WEST-NORTH-WESTWARD DIRECTION FROM FRIDAY. THE TIMING AND LOCALISATION OF THE IMPACT THUS REMAIN RELATIVELY UNCERTAIN, AS THE ALONG-TRACK MODEL DISPERSION ALSO INCREASED.

ON THIS TRACK, THE ENVIRONMENTAL CONDITIONS REMAIN CONDUCIVE FOR THE SYSTEM, WHICH SHOULD CONTINUE TO STRENGTHEN, ESPECIALLY OVER THE NEXT 48 H AS IT PASSES OVER AN OCEANIC GYRE CONCENTRATING HIGH ENERGY CONTENT. THUS, THE VERY INTENSE TROPICAL CYCLONE STAGE MIGHT BE REACHED. THE SYSTEM TRACKS UNDER THE AXIS OF AN UPPER RIDGE AND THUS BENEFITS FROM A GOOD UPPER DIVERGENCE ESPECIALLY IN THE SOUTHERN QUADRANT. AN EYEWALL REPLACEMENT CYCLE COULD ALSO MODULATE IDAI'S INTENSITY. FROM WEDNESDAY, WITH A SIGNIFICANT DECREASE OF THE EQUATORWARD DIVERGENCE, THE SYSTEM INTENSITY SHOULD REACH A PLATEAU. IDAI SHOULD LAND AT THE INTENSE TROPICAL CYCLONE STAGE.

IDAI SHOULD BE A VERY DANGEROUS STORM AT THE TIME OF ITS LANDING, WHICH IS STILL FORECASTED ON FRIDAY ON THE MOZAMBICAN COASTLINE BETWEEN BEIRA AND QUELIMANE APPROXIMATELY. THE FIRST STORM SURGE ESTIMATIONS EXCEED 6M OVER THE ZAMBEZE'S DELTA AND ARE CLOSE TO 4M AROUND BEIRA AND QUELIMANE.