

WTIO30 FMEE 160644

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 13/10/20222023

1.A TROPICAL CYCLONE 10 (FABIEN)

2.A POSITION 2023/05/16 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 6.5 S / 75.5 E

(SIX DECIMAL FIVE DEGREES SOUTH AND
SEVENTY FIVE DECIMAL FIVE DEGREES EAST)

MOVEMENT: SOUTH-WEST 6 KT

3.A DVORAK ANALYSIS: 5.0/5.0/D 0.5/6 H

4.A CENTRAL PRESSURE: 974 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 80 KT

RADIUS OF MAXIMUM WINDS (RMW): 33 KM

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

28 KT NE: 155 SE: 220 SW: 165 NW: 150

34 KT NE: 110 SE: 110 SW: 110 NW: 100

48 KT NE: 85 SE: 85 SW: 80 NW: 75

64 KT NE: 55 SE: 55 SW: 55 NW: 55

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1011 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2023/05/16 18 UTC: 8.0 S / 74.4 E, VENT MAX= 090 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 150 SE: 220 SW: 185 NW: 150

34 KT NE: 110 SE: 100 SW: 130 NW: 100

48 KT NE: 75 SE: 75 SW: 75 NW: 65

64 KT NE: 55 SE: 55 SW: 55 NW: 55

24H: 2023/05/17 06 UTC: 9.1 S / 73.4 E, VENT MAX= 095 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 150 SE: 250 SW: 215 NW: 150

34 KT NE: 110 SE: 110 SW: 140 NW: 100

48 KT NE: 75 SE: 75 SW: 75 NW: 65

64 KT NE: 55 SE: 55 SW: 55 NW: 55

36H: 2023/05/17 18 UTC: 9.7 S / 72.7 E, VENT MAX= 090 KT, INTENSE TROPICAL
CYCLONE

28 KT NE: 150 SE: 270 SW: 220 NW: 150

34 KT NE: 120 SE: 140 SW: 165 NW: 100

48 KT NE: 75 SE: 85 SW: 85 NW: 65
64 KT NE: 55 SE: 55 SW: 55 NW: 55

48H: 2023/05/18 06 UTC: 9.9 S / 71.6 E, VENT MAX= 085 KT, TROPICAL CYCLONE
28 KT NE: 150 SE: 295 SW: 215 NW: 155
34 KT NE: 120 SE: 150 SW: 165 NW: 100
48 KT NE: 75 SE: 85 SW: 95 NW: 65
64 KT NE: 55 SE: 55 SW: 55 NW: 55

60H: 2023/05/18 18 UTC: 9.8 S / 70.5 E, VENT MAX= 085 KT, TROPICAL CYCLONE
28 KT NE: 150 SE: 260 SW: 220 NW: 165
34 KT NE: 120 SE: 120 SW: 150 NW: 110
48 KT NE: 75 SE: 85 SW: 85 NW: 75
64 KT NE: 55 SE: 55 SW: 55 NW: 45

72H: 2023/05/19 06 UTC: 9.7 S / 69.6 E, VENT MAX= 080 KT, TROPICAL CYCLONE
28 KT NE: 155 SE: 280 SW: 240 NW: 165
34 KT NE: 120 SE: 130 SW: 155 NW: 110
48 KT NE: 75 SE: 85 SW: 85 NW: 75
64 KT NE: 55 SE: 55 SW: 55 NW: 45

2.B LONGER-RANGE OUTLOOK:

96H: 2023/05/20 06 UTC: 9.4 S / 68.9 E, VENT MAX= 065 KT, TROPICAL CYCLONE
28 KT NE: 165 SE: 240 SW: 260 NW: 195
34 KT NE: 130 SE: 110 SW: 165 NW: 140
48 KT NE: 75 SE: 85 SW: 85 NW: 65
64 KT NE: 55 SE: 45 SW: 45 NW: 45

120H: 2023/05/21 06 UTC: 9.2 S / 69.0 E, VENT MAX= 045 KT, MODERATE TROPICAL
STORM

28 KT NE: 150 SE: 240 SW: 215 NW: 175
34 KT NE: 120 SE: 110 SW: 150 NW: 120

2.C ADDITIONAL INFORMATION:

T=CI=5.0

DURING THE LAST SIX HOURS, THE CLOUD PATTERN HAS IMPROVED WITH THE APPEARANCE OF AN EYE IN CLASSICAL IMAGERY. IN VIEW OF THE SUBJECTIVE DVORAK ANALYSIS (4.5 TO 5.5), AND IN AGREEMENT WITH THE LAST ESTIMATED DATA (74KT SMAP AND 57KT ASCAT), FABIEN'S INTENSITY HAS BEEN RAISED TO 80KT.

FEW CHANGES IN THE FORECAST. FABIEN IS STARTING TO MOVE WEST-SOUTHWEST BEFORE TAKING A MORE PRONOUNCED SOUTHWESTWARD DIRECTION UNDER THE INFLUENCE OF A RIDGE TO THE EAST. DURING THE WEEK, FABIEN SHOULD TURN WESTWARD WITH THE ARRIVAL OF A SUBTROPICAL RIDGE FROM THE SOUTHEAST, WHILE SLOWING DOWN. ON FRIDAY, THIS RIDGE SHOULD QUICKLY DISAPPEAR, PLACING THE SYSTEM IN THE MIDDLE OF CONTRADICTORY DIRECTING FLOWS, BETWEEN TWO RIDGES. FABIEN COULD THEN REMAIN STATIONARY. AT LONGER RANGE, THE UNCERTAINTY BECOMES MORE IMPORTANT, AS THE MOVEMENT WILL DEPEND ON THE SYSTEM'S WEAKENING RATE. THE MORE INTENSE THE SYSTEM WILL BE, THE MORE THE WESTERLY FLOW COULD TAKE OVER. THIS TRANSLATES

INTO A STRONGER DISPERSION WITHIN THE NUMERICAL MODELS IN THE LONG TERM. THE CURRENT RSMC TRACK IS A COMPROMISE BETWEEN THE MAIN MODELS.

REGARDING ITS INTENSITY, FABIEN SHOULD CONTINUE TO INTENSIFY IN THE NEXT FEW HOURS IN A FAVORABLE ENVIRONMENT, THEREFORE IT COULD REACH THE INTENSE TROPICAL CYCLONE STAGE. DURING THE NEXT 3 DAYS, THE SYSTEM SHOULD REMAIN IN RATHER FAVORABLE CONDITIONS EXCEPT FOR THE PRESENCE OF A WEAK WEST-SOUTHWEST SHEAR ON WEDNESDAY/THURSDAY. IT SHOULD THEN MAINTAIN AT LEAST TO THE TROPICAL CYCLONE STAGE. LATER ON, THE STRENGTHENING OF THE SOUTHEASTERLY SHEAR AND ESPECIALLY THE POSSIBLE COLLAPSE OF THE UNDERLYING OCEANIC POTENTIAL DUE TO STATIONARITY, SHOULD LEAD TO A SIGNIFICANT WEAKENING.

FABIEN IS CURRENTLY LOCATED ABOUT 340KM NORTHEAST OF DIEGO-GARCIA, AND IS EXPECTED TO PASS CLOSE TO 200KM FROM THE ISLAND, LEAVING IT OUT OF THE STRONGEST WINDS. FABIEN POSES NO THREAT TO OTHER ISLANDS IN THE BASIN.