

WTIO30 FMEE 060657

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 5/10/20202021

1.A SEVERE TROPICAL STORM 10 (FARAJI)

2.A POSITION 2021/02/06 AT 0600 UTC:

WITHIN 20 NM RADIUS OF POINT 14.1 S / 79.9 E

(FOURTEEN DECIMAL ONE DEGREES SOUTH AND
SEVENTY NINE DECIMAL NINE DEGREES EAST)

MOVEMENT: SOUTH 5 KT

3.A DVORAK ANALYSIS: 4.0/4.0/D 1.0/12 H

4.A CENTRAL PRESSURE: 985 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 55 KT

RADIUS OF MAXIMUM WINDS (RMW): 28 KM

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

28 KT NE: 165 SE: 370 SW: 370 NW: 185

34 KT NE: 130 SE: 110 SW: 150 NW: 130

48 KT NE: 45 SE: 45 SW: 50 NW: 45

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 600 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS (WINDS RADII IN KM):

12H: 2021/02/06 18 UTC: 14.6 S / 79.9 E, VENT MAX= 065 KT, TROPICAL CYCLONE

28 KT NE: 155 SE: 250 SW: 240 NW: 165

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

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

64 KT NE: 65 SE: 55 SW: 55 NW: 55

24H: 2021/02/07 06 UTC: 14.9 S / 80.2 E, VENT MAX= 075 KT, TROPICAL CYCLONE

28 KT NE: 155 SE: 240 SW: 240 NW: 185

34 KT NE: 120 SE: 100 SW: 110 NW: 130

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

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

36H: 2021/02/07 18 UTC: 14.9 S / 80.7 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 175 SE: 280 SW: 270 NW: 185

34 KT NE: 140 SE: 130 SW: 130 NW: 130

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

64 KT NE: 45 SE: 45 SW: 45 NW: 55

48H: 2021/02/08 06 UTC: 14.7 S / 81.4 E, VENT MAX= 090 KT, INTENSE TROPICAL

CYCLONE

28 KT NE: 175 SE: 295 SW: 270 NW: 155
34 KT NE: 140 SE: 140 SW: 130 NW: 130
48 KT NE: 95 SE: 85 SW: 75 NW: 85
64 KT NE: 65 SE: 65 SW: 65 NW: 55

60H: 2021/02/08 18 UTC: 14.7 S / 82.5 E, VENT MAX= 090 KT, INTENSE TROPICAL CYCLONE

28 KT NE: 165 SE: 295 SW: 280 NW: 165
34 KT NE: 140 SE: 140 SW: 140 NW: 130
48 KT NE: 95 SE: 85 SW: 75 NW: 85
64 KT NE: 65 SE: 65 SW: 65 NW: 55

72H: 2021/02/09 06 UTC: 14.9 S / 83.7 E, VENT MAX= 085 KT, TROPICAL CYCLONE

28 KT NE: 175 SE: 315 SW: 270 NW: 165
34 KT NE: 150 SE: 155 SW: 140 NW: 130
48 KT NE: 95 SE: 85 SW: 75 NW: 75
64 KT NE: 55 SE: 65 SW: 65 NW: 55

2.B LONGER-RANGE OUTLOOK:

96H: 2021/02/10 06 UTC: 16.4 S / 85.4 E, VENT MAX= 070 KT, TROPICAL CYCLONE

28 KT NE: 165 SE: 405 SW: 400 NW: 195
34 KT NE: 150 SE: 220 SW: 205 NW: 110
48 KT NE: 85 SE: 75 SW: 75 NW: 65
64 KT NE: 65 SE: 55 SW: 65 NW: 55

120H: 2021/02/11 06 UTC: 17.2 S / 85.5 E, VENT MAX= 050 KT, SEVERE TROPICAL STORM

28 KT NE: 150 SE: 345 SW: 285 NW: 165
34 KT NE: 140 SE: 175 SW: 165 NW: 100
48 KT NE: 70 SE: 60 SW: 60 NW: 40

2.C ADDITIONAL INFORMATION:

T=CI=4.0-

OVER THE LAST 6 HRS, THE CLOUD PATTERN IMPROVED AGAIN WITH CONVECTION ORGANIZED IN WELL DEFINED CDO.

THE CONSOLIDATION OF FARAJI'S INNER CORE IS ILLUSTRATED BY THE 37GHZ AND 89GHZ SSMIS 0039Z IMAGE, WHERE AN QUITE CLOSED EYE APPEARS ON THESE TWO CHANNELS.

THIS STRUCTURE AND GOOD UPPER DIVERGENCE ARE SUGGESTING A FAIR CHANCE OF RAPID INTENSIFICATION OVER THE NEXT 24 HRS.

IN TERMS OF TRACK FORECAST, FARAJI REMAINS UNDER OPPOSITE INFLUENCES : THE SUBTROPICAL RIDGE IN THE SOUTH-SOUTH-WEST AND THE EQUATORIAL RIDGE IN THE NORTH. UNDER THESE CONTRARY INFLUENCES, THE TRACK IS EXPECTED TO BE QUITE ERRATIC AND SLOW OVER THE NEXT 24 HRS, FOLLOWING A GENERALLY SOUTHWARD EVEN SOUTH-SOUTHWEST MOTION, UNDER THE GROWING INFLUENCE (DUE TO THE INTENSIFICATION OF THE SYSTEM) OF THE RIDGE PRESENT AROUND 500/400HPA IN THE EASTERN PART OF THE SYSTEM. THEN, A MID-LEVEL CUT-OFF LOW SHOULD ISOLATE ITSELF IN THE SOUTH-WEST OF FARAJI, ASSOCIATED WITH THE STRENGTHENING OF THE EQUATORIAL RIDGE AND THE ERASING OF THE EASTERN RIDGE, SHOULD PUSH IT MORE STRONGLY

EASTWARD AND THEN SOUTHEASTWARD. AT THE END OF THE PERIOD, A RIDGE SHOULD REBUILT IN THE EASTERN PART OF THE SYSTEM, DIRECTING THE MOVEMENT OF THE SYSTEM MORE SHARPLY TO THE SOUTH. THESE MULTIPLE INFLUENCES ARE DIFFICULT TO HANDLE FOR THE NUMERICAL GUIDANCE, YIELDING A LARGE MODEL SPREAD ILLUSTRATING A STRONG UNCERTAINTY ON FARAJI'S LOCATION FROM MONDAY.

FARAJI SHOULD RELOCATE UNDER THE AXIS OF THE UPPER RIDGE AS IT SHIFTS SOUTHWARD, WHICH SHOULD ALLOW IT TO STILL BENEFIT FROM A GOOD UPPER DIVERGENCE WHILE ESCAPING THE SHEAR. OVER WATERS WITH HIGH HEAT CONTENT, FARAJI SHOULD INTENSIFY QUITE QUICKLY OVER THE WEEK-END. FROM MONDAY, A TROUGH IS COMING CLOSER FROM THE SOUTH-WEST AND SHOULD DRIVE THE EMERGENCE OF A MID-LEVEL SOUTHWESTERLY SHEAR. ASSOCIATED TO DRY AIR, THIS CONSTRAINT IS EXPECTED TO SLOW FARAJI'S DEVELOPMENT DOWN, OR EVEN STOP IT TUESDAY. FROM TUESDAY NIGHT, THE UPPER SHEAR WILL ALSO STRENGTHEN AND SHOULD WEAKEN THE STORM MORE EFFICIENTLY. AVAILABLE GUIDANCE IS IN RATHER GOOD AGREEMENT ON THIS SCENARIO, AND NOW SUGGEST THAT THERE IS A FAIR PROBABILITY OF FARAJI REACHING THE STAGE OF INTENSE TROPICAL CYCLONE.

THIS SYSTEM DOES NOT POSE ANY THREAT FOR INHABITED LANDS.