

WTIO30 FMEE 241241

RSMC / TROPICAL CYCLONE CENTER / LA REUNION

TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 13/13/20182019

1.A TROPICAL CYCLONE 13 (JOANINHA)

2.A POSITION 2019/03/24 AT 1200 UTC:

WITHIN 20 NM RADIUS OF POINT 17.1 S / 61.8 E

(SEVENTEEN DECIMAL ONE DEGREES SOUTH AND  
SIXTY ONE DECIMAL EIGHT DEGREES EAST)

MOVEMENT: SOUTH-SOUTH-EAST 3 KT

3.A DVORAK ANALYSIS: 4.5/4.5/D 0.5/24 H

4.A CENTRAL PRESSURE: 968 HPA

5.A MAX AVERAGE WIND SPEED (10 MN): 75 KT

RADIUS OF MAXIMUM WINDS (RMW): 52 KM

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

28 KT NE: 350 SE: 410 SW: 330 NW: 220

34 KT NE: 260 SE: 260 SW: 240 NW: 170

48 KT NE: 100 SE: 100 SW: 100 NW: 80

64 KT NE: 70 SE: 70 SW: 70 NW: 70

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1008 HPA / 900 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:

12H: 2019/03/25 00 UTC: 17.7 S / 62.1 E, VENT MAX= 080 KT, TROPICAL CYCLONE

24H: 2019/03/25 12 UTC: 18.3 S / 62.4 E, VENT MAX= 085 KT, TROPICAL CYCLONE

36H: 2019/03/26 00 UTC: 19.1 S / 63.0 E, VENT MAX= 085 KT, TROPICAL CYCLONE

48H: 2019/03/26 12 UTC: 19.9 S / 63.8 E, VENT MAX= 085 KT, TROPICAL CYCLONE

60H: 2019/03/27 00 UTC: 20.4 S / 64.7 E, VENT MAX= 085 KT, TROPICAL CYCLONE

72H: 2019/03/27 12 UTC: 20.9 S / 65.9 E, VENT MAX= 085 KT, TROPICAL CYCLONE

2.B LONGER-RANGE OUTLOOK:

96H: 2019/03/28 12 UTC: 22.1 S / 67.2 E, VENT MAX= 075 KT, TROPICAL CYCLONE

120H: 2019/03/29 12 UTC: 23.7 S / 68.3 E, VENT MAX= 060 KT, SEVERE TROPICAL STORM

2.C ADDITIONAL INFORMATION:

T=CI=4.5

A RAGGED EYE PATTERN HAS PREVAILED ON BOTH EIR AND VIS IMAGERY OVER  
THE LAST 6 HOURS. THE SUBJECTIVE DVORAK ESTIMATES REMAIN AT 4.5-5.0 (65-80  
KT) AND THE FINAL INTENSITY IS RAISED AT 75 KT BAISED ON RECENT SATCON

AND ADT ESTIMATES AT 82-87 KT (1-MIN WINDS) ... AND A SMAP PASS AT 0149Z AT 78 KT.

BASED ON MSG-1 VIS IMAGERY, JOANINHA SEEMS TO RESUME ON A SLOW SOUTH-SOUTH-EASTWARDS TRACK OVER THE LAST 2 TO 3 HOURS UNDER THE STEERING INFLUENCE OF A NEAR-EQUATORIAL RIDGE (NER) SHIFTING TO THE NORTH-EAST OF THE SYSTEM. THE INITIAL POSITION IS SIGNIFICANTLY MORE TO THE NORTH-EAST OF THE GUIDANCE AND THIS HAS LED TO SOME EASTWARDS SHIFT OF THE FORECAST TRACK. WEDNESDAY, THE TRACK IS EXPECTED TO BEND EASTWARDS AS THE NER WILL MOVE TO THE NORTH OF THE SYSTEM. A SMALL SUBTROPICAL RIDGE TO THE THE SOUTH MAY REDUCE THE FORWARD MOTION BY THAT TIME. HOWEVER, THERE IS SOME DIFFERENCE IN THE WAY THE MOST RELIABLE MODELS TAKEN INTO ACCOUNT THE STEERING FLOW AT THE MID-LEVEL. THEREFORE, THERE IS STILL SOME UNCERTAINTY IN BEARING AND FORWARD MOTION OF THE CYCLONE WITHIN THE NEXT FEW DAYS.

THE ENVIRONMENTAL CONDITIONS REMAIN FAVORABLE FOR THE INTENSIFICATION. THE UPPER DIVERGENCE REMAINS EXCELLENT BOTH POLEWARD AND EQUATORWARD. THE OCEANIC HEAT CONTENT IS HIGH NORTH OF 25S. FROM MONDAY EVENING OR MORE LIKELY NOW ON TUESDAY, AN UPPER NORTH-WESTERLY CONSTRAINT APPEARS AND THE INTENSITY OF THE SYSTEM SHOULD REMAIN STATIONARY. GRADUALLY AFTER THAT TIME, THE ENVIRONMENTAL CONDITIONS MAY DETERIORATE WITH THE STRENGTHENING OF THE SHEAR AHEAD OF AN UPPER TROUGH, BUT THIS EFFECT COULD BE OFFSET BY EXCELLENT UPPER LEVEL DIVERGENCE OVER THE SOUTH-EASTERN SEMI-CIRCLE. THUS, THE RATE OF THE WEAKENING TREND HAS BEEN REDUCED ON THIS PART OF THE FORECAST PERIOD. THE INTENSITY FORECAST FOLLOW THE LATEST INTENSITY CONSENSUS (ICNW). ONE SHOULD NOTE THAT REGIONAL MODEL AS AROME AND HWRF STILL SUGGEST THE LIKELIHOOD OF A STRONGER SYSTEM BUT THIS IS STILL NOT RETAINED AT THIS TIME.

BASED ON THE LATEST FORECAST, JOANINHA SHOULD PASS NEAR OR OVER RODRIGUES ISLAND ON TUESDAY. THIS A SERIOUS SITUATION FOR THIS ISLAND AS SIGNIFICANT WEATHER ASSOCIATED WITH JOANINHA HAS EXPECTED TO SPREAD FOR A LONG TIME OVER THE ISLAND (REGULAR GALE FORCE WINDS ARE LIKELY TO START TOMORROW AND MAY LAST UP TO WEDNESDAY ). ONE SHOULD NOT FOCUS ON THE PRECISE TRACK AS AVERAGE TRACK FORECAST ERRORS DOES NOT ALLOW TO CURRENTLY PREDICT IF THE CYCLONE WILL PASS TO THE WEST, TO THE EAST OR OVER THE ISLAND GIVEN THE VERY SMALL SIZE OF RODRIGUES. THEREFORE THE INHABITANTS ARE INVITED TO CLOSELY MONITOR THE PROGRESS OF JOANINHA AND FOLLOW THE INSTRUCTIONS PROVIDED BY LOCAL AUTHORITIES.