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METEO FRANCE
Toujours un temps d'avance

WTIO30 FMEE 210039

RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 11/9/20122013

1.A TROPICAL CYCLONE 9 (HARUNA)

2.A POSITION 2013/02/21 AT 0000 UTC:

WITHIN 20 NM RADIUS OF POINT 22.3 S / 41.4 E

(TWENTY TWO DECIMAL THREE DEGREES SOUTH AND FORTY ONE DECIMAL FOUR DEGREES EAST)

MOVEMENT : EAST 2 KT

3.A DVORAK ANALYSIS: 5.0/5.0/D 1.5/24 H

4.A CENTRAL PRESSURE: 965 HPA

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

RADIUS OF MAXIMUM WINDS (RMW) :59 KM

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

28 KT NE: 260 SE: 220 SW: 190 NW: 190

34 KT NE: 180 SE: 160 SW: 160 NW: 150

48 KT NE: 140 SE: 130 SW: 130 NW: 120

64 KT NE: 100 SE: 90 SW: 90 NW: 90

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1005 HPA / 800 KM

8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION : DEEP

1.B FORECASTS:

12H: 2013/02/21 12 UTC: 22.3 S / 41.8 E, MAX WIND=085 KT, TROPICAL CYCLONE

24H: 2013/02/22 00 UTC: 22.1 S / 42.5 E, MAX WIND=090 KT, INTENSE TROPICAL CYCLONE

36H: 2013/02/22 12 UTC: 23.0 S / 43.4 E, MAX WIND=080 KT, TROPICAL CYCLONE

48H: 2013/02/23 00 UTC: 24.2 S / 44.4 E, MAX WIND=035 KT, OVERLAND DEPRESSION

60H: 2013/02/23 12 UTC: 25.5 S / 46.4 E, MAX WIND=025 KT, TROPICAL DISTURBANCE

72H: 2013/02/24 00 UTC: 26.2 S / 48.2 E, MAX WIND=030 KT, TROPICAL DEPRESSION

2.B LONGER-RANGE OUTLOOK :

96H: 2013/02/25 00 UTC: 26.4 S / 50.8 E, MAX WIND=035 KT, MODERATE TROPICAL STORM

120H: 2013/02/26 00 UTC: 25.8 S / 51.2 E, MAX WIND=030 KT, TROPICAL DEPRESSION

2.C ADDITIONAL INFORMATION:

T=5.0- CI=5.0+

HARUNA CONTINUE DE PRESENT A VERY WELL DEFINED REGULAR EYE PATTERN. TOP CLOUDS ARE RECENTLY COOLING IN THE EYEWALL. CURRENT INTENSITY IS BASED ON 3 HRS AVERAGE OF MANUAL DVORAK ANALYSIS. IT IS IN GOOD

AGREEMENT WITH OTHERS AVAILABLE INTENSITY ESTIMATES. SATCON OF 22Z THAT TAKING INTO ACCOUNT THE N19 PASS OF 2237Z WITH EXCELLENT FOV SUGGEST A MAX 10 MIN WINDS IN THE 70-80 KT RANGE.

AN UPPER TO MID LEVEL TROUGH, WELL DEPICTED ON WV IMAGERY SOUTH OF 30S AND NEAR 36E, IS TRANSITING SOUTH OF THE SYSTEM. UNDER COMBINED INFLUENCE OF A WESTERLY STEERING FLOW PRESENT TO THE NORTH OF THE TROUGH AND A SOUTH-SOUTHEASTERLY STEERING FLOW ASSOCIATED WITH THE MID LEVELS HIGHS LOCATED OVER SOUTHERN AFRICA, THE SYSTEM SHOULD CONTINUE ON A SLOW EASTWARDS OR NORTHEASTWARDS TRACK. FROM FRIDAY TO SUNDAY, AS THE TROUGH BYPASS THE SYSTEM, AND HARUNA SHOULD BE EMBEDDED WITHIN A NORTHWESTERLY STEERING FLOW ON THE SOUTHWESTERN SIDE OF THE NEAR EQUATORIAL RIDGE.

OVER HIGH ENERGETIC POTENTIAL SEAS (29/30 DEGREES C) AND UNDER THE UPPER LEVEL RIDGE, SYSTEM SHOULD GRADUALLY STRENGTHEN UNTIL IT GETS CLOSE TO MADAGASCAR. HOWEVER AS THE SYSTEM IS STILL EXPECTED TO MOVE SLOWLY TODAY, A TEMPORARILY WEAKENING TREND COULD STILL OCCUR UNTIL THE SYSTEM WILL MOVE AWAY FROM SYSTEM'S SELF-INDUCED COOL WATERS ..

HARUNA PRESENTS AN IMPORTANT THREAT FOR THE SOUTH-WESTERN COASTS OF MADAGASCAR. AN IMPACT APPEAR AS QUASI A CERTITUDE .. HOWEVER, THE SHAPE OF THE FORECAST TRACK, COMBINED WITH SOME STILL SIGNIFICANT DISCREPANCIES AMONG THE NUMERICAL GUIDANCE AND THE SHAPE OF THE COAST IN THAT AREA ... DO NOT ALLOW TO PINPOINT RIGHT NOW THE EXACT LOCATION OF THE LANDFALL. THE POTENTIAL AREA OF LANDFALL IS STILL RATHER WIDE AND RUN FROM MOROMBE SOUTHEASTWARDS TO ANDROKA (ABOUT 120 KM ALONG THE COAST TO THE WEST-NORTH-WEST OF THE SOUTHERN TIP OF MADAGASCAR). UNCERTAINTY EXISTS ALSO FOR THE TIME OF LANDFALL, ALTHOUGH FRIDAY OR FRIDAY NIGHT IS HIGHLY SUGGESTED BY THE GUIDANCES. INHABITANTS OF THIS AREA SHOULD MONITOR THE EVOLUTION OF THIS SYSTEM AND STAY TUNED WITH INFORMATIONS PROVIDED BY THEIR NATIONAL WEATHER SERVICES.

AFTER THE SYSTEM WOULD GET BACK OVER WATERS TO THE SOUTH-EAST OF MADAGASCAR (SUNDAY AND BEYOND), THE SYSTEM SHOULD BE WITHIN A BAROMETRIC COL SITUATION AND SHOULD GRADUALLY SLOW DOWN. AT THE END OF THE FORECAST PERIOD, HARUNA COULD MISS THE TROUGH AND NOT MOVE TOWARDS THE MID-LATS. AS A LOW TO MID-LEVEL HIGHS SHOULD BUILD BY THE SOUTHWEST, A GRADUAL TURN TOWARDS THE NORTH OR THE NORTHWEST COULD BE EXPECTED. OVER THAT PORTION OF THE FORECAST TRACK, ENVIRONMENTAL CONDITIONS APPEAR UNFAVOURABLE (STRONG NORTH-WESTERLY WIND-SHEAR AND COOLER SST). HOWEVER, SOME MODEST INTENSIFICATION MAY BE POSSIBLE.

GIVEN THE HIGH SPREAD SHOWN BY THE MODELS, THERE IS A HIGHER THAN USUAL UNCERTAINTY IN THE TRACK FORECAST OF THAT SYSTEM.