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WTIO30 FMEE 090019
RSMC / TROPICAL CYCLONE CENTER / LA REUNION
TROPICAL CYCLONE FORECAST WARNING (SOUTH-WEST INDIAN OCEAN)

0.A WARNING NUMBER: 22/2/20192020
1.A TROPICAL CYCLONE 2 (BELNA)

2.A POSITION 2019/12/09 AT 0000 UTC:
WITHIN 25 NM RADIUS OF POINT 13.6 S / 46.4 E
(THIRTEEN DECIMAL SIX DEGREES SOUTH AND
FORTY SIX DECIMAL FOUR DEGREES EAST)
MOVEMENT: SOUTH 6 KT

3.A DVORAK ANALYSIS: 4.0/4.5/W 0.5/6 H

4.A CENTRAL PRESSURE: 978 HPA
5.A MAX AVERAGE WIND SPEED (10 MN): 65 KT
RADIUS OF MAXIMUM WINDS (RMW): 19 KM

6.A EXTENSION OF WIND BY QUADRANTS (KM):
28 KT NE: 110 SE: 100 SW: 100 NW: 100
34 KT NE: 60 SE: 60 SW: 60 NW: 60
48 KT NE: 50 SE: 50 SW: 50 NW: 50
64 KT NE: 20 SE: 20 SW: 20 NW: 20

7.A FIRST CLOSED ISOBAR (PRESSURE / AVERAGE DIAM): 1007 HPA / 400 KM
8.A VERTICAL EXTENSION OF CYCLONE CIRCULATION: DEEP

1.B FORECASTS:
12H: 2019/12/09 12 UTC: 15.7 S / 45.9 E, VENT MAX= 080 KT, TROPICAL CYCLONE
24H: 2019/12/10 00 UTC: 17.8 S / 45.1 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
36H: 2019/12/10 12 UTC: 20.0 S / 44.7 E, VENT MAX= 030 KT, OVERLAND DEPRESSION
48H: 2019/12/11 00 UTC: 22.5 S / 45.4 E, VENT MAX= 020 KT, OVERLAND DEPRESSION

2.B LONGER-RANGE OUTLOOK:
NIL

2.C ADDITIONAL INFORMATION:
T=4.0;CI=4.5-

BELNA'S CLOUD PATTERN REMAINED IN THE CONFIGURATION OF "EMBEDDED CENTER", WITH VERY COLD CLOUD TOPS. THUS, THE ESTIMATED LOCATION OF THE CENTER IS NOT VERY PRECISE, WITH NO RECENT MW IMAGES. THE CURRENT INTENSITY ESTIMATE IS BASED ON A BLEND OF THE AVAILABLE OBJECTIVE AND SUBJECTIVE DATA. A LIGHT NORTHERLY MID-LEVEL SHEAR CONSTRAINT IS STILL SUGGESTED BY CIMSS'S ANALYSIS MAPS.

BELNA SHOULD KEEP TRACKING GENERALLY SOUTH-SOUTHWESTWARD OVER THE NEXT 24 TO 36 HOURS UNDER THE STRENGTHENING INFLUENCE OF A MID-LEVEL RIDGE BUILDING IN THE EAST OF THE SYSTEM. THE CURRENT FORECAST TRACK FOLLOWS A IFS/GFS/AROME CONSENSUS. BEYOND THAT TIME, THE TRACK SHOULD CURVE SOUTH-EASTWARDS AS THE SYSTEM IS EXPECTED TO CIRCUMVENT THE MID-LEVEL RIDGE.

TODAY MONDAY, IMPROVING ENVIRONMENTAL CONDITIONS SHOULD PROVIDE A SHORT WINDOW FOR REINTENSIFICATION BEFORE THE FORECASTED LANDFALL ON MADAGASCAR, AS THE MID-LEVEL SHEAR CONSTRAINT SHOULD DISAPPEAR. THE SMALL SIZE OF BELNA MAKES IT VERY SENSITIVE TO ITS ENVIRONMENT, ALLOWING FOR RAPID CHANGES IN INTENSITY THAT ARE DIFFICULT TO FORECAST. FROM MONDAY EVENING AND BEYOND, THE INTENSITY FORECAST IS MUCH MORE UNCERTAIN FOLLOWING THE POTENTIAL LANDFALL. TUESDAY THE SYSTEM MAY TRACK BACK OVERSEAS BETWEEN MOROMBE AND MORONDAVA.
ALTHOUGH LESS PROBABLE, A PASSAGE OFF THE COAST OF CAPE ST ANDRE IS STILL NOT EXCLUDED.

BELNA IS CURRENTLY TRACKING AWAY FROM MAYOTTE. IN THE END OF THIS AFTERNOON, A LANDFALL AT THE STAGE OF TROPICAL CYCLONE IS FORECASTED ON THE NORTH-WESTERN MADAGASCAN COAST, WHICH IS PARTICULARLY VULNERABLE TO STORM SURGE. DEPENDING ON THE LOCATION OF LANDFALL, THE MAX STORM SURGE COULD REACH 2M NEAR THE IMPACT POINT, BASED ON THE CURRENT FORECAST. ADDITIONALLY, TORRENTIAL RAINS ARE AWAITED ON THE REGIONS OF THE LANDFALL, LOCALLY EXCEEDING 200 MM OVER 24H/36H. THESE SEVERE WEATHER CONDITIONS SHOULD SPREAD TOWARDS THE WESTERN AREAS OF MADAGASCAR AND IT IS WORTH NOTING THAT REGENERATION COULD OCCUR BY THAT TIME IF THE SYSTEM MOVE BACK OVERSEAS.

INHABITANTS FROM THE NORTHERN AND WESTERN MALAGASY COASTS BETWEEN MAHAJUNGA AND CAPE SAINT-ANDRE ARE INVITED TO MONITOR CLOSELY THE EVOLUTION OF BELNA AND COMPLETE FINAL PREPARATIONS FOR A POSSIBLE LANDFALL.