



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES,
NEW DELHI SPECIAL TROPICAL WEATHER OUTLOOK**

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 14.09.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0600 UTC OF 14.09.2024 BASED ON 0300 UTC OF 14.09.2024.

SUB: DEEP DEPRESSION OVER GANGETIC WEST BENGAL AND ADJOINING BANGLADESH

THE DEEP DEPRESSION OVER BANGLADESH AND ADJOINING GANGETIC WEST BENGAL MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 28 KMPH DURING PAST 6 HOURS AND LAY CENTERED 0300 UTC OF TODAY, THE 14TH SEPTEMBER 2024, OVER GANGETIC WEST BENGAL AND ADJOINING BANGLADESH NEAR LATITUDE 22.9° N AND LONGITUDE 88.6°E, 50 KM NORTHEAST OF KOLKATA (42807, WEST BENGAL), 160 KM EAST-SOUTHEAST OF BANKURA (42706, WEST BENGAL), 250 KM EAST OF JAMSHEDPUR (42799, JHARKHAND) AND 340 KM EAST OF RANCHI (42701, JHARKHAND).

IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL AND MAINTAIN ITS INTENSITY OF DEEP DEPRESSION TILL 1200 UTC OF TODAY, THE 14TH SEPTEMBER. THEREAFTER, IT WILL CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS JHARKHAND, NORTH CHHATTISGARH AS A DEPRESSION DURING SUBSEQUENT 48 HOURS.

THE DEEP DEPRESSION IS UNDER CONTINUOUS SURVEILLANCE BY THE DOPPLER WEATHER RADAR AT KOLKATA.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
14.09.24/0300	22.9/88.6	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/0600	23.0/88.0	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/1200	23.2/86.9	50-60 GUSTING TO 70	DEEP DEPRESSION
14.09.24/1800	23.3/85.8	50-60 GUSTING TO 70	DEEP DEPRESSION
15.09.24/0000	23.4/84.6	45-55 GUSTING TO 65	DEPRESSION
15.09.24/1200	23.6/82.5	45-55 GUSTING TO 65	DEPRESSION
16.09.24/0000	23.8/80.5	40-50 GUSTING TO 60	DEPRESSION
16.09.24/1200	24.0/78.5	35-45 GUSTING TO 55	DEPRESSION

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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17.09.24/0000

24.2/76.5

35-45 GUSTING TO 55

DEPRESSION

AT 0300 UTC, AS PER INSAT 3DR IMAGERY, ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER BIHAR, JHARKHAND, SUB-HIMALAYAN WEST BENGAL, GANGETIC WEST BENGAL, ODISHA, TRIPURA MIZORAM, BANGLADESH, NORTH & ADJOINING CENTRAL BAY OF BENGAL (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80-93°C)

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IN ASSOCIATION WITH THE SYSTEM IS 30 KTS GUSTING TO 40 KTS. ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 0300 UTC, BARRACKPORE REPORTED LOWEST MEAN SEA LEVEL PRESSURE (MSLP) OF 993.0 HPA AND MAXIMUM WIND SPEED (MSW) OF 340°/10KT AND KOLKATA REPORTED LOWEST MEAN SEA LEVEL PRESSURE (MSLP) OF 993.1 HPA AND MAXIMUM WIND SPEED (MSW) OF 320°/05KT

WIND WARNING:

SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH IS LIKELY OVER NORTH BAY OF BENGAL AND ALONG & OFF BANGLADESH, WEST BENGAL, AND NORTH ODISHA COASTS TILL 1800 UTC OF TODAY, THE 14TH SEPTEMBER. IT IS LIKELY TO BECOME 40-50 KMPH GUSTING TO 60 KMPH TILL 1200 UTC OF 15TH SEPTEMBER AND DECREASE THEREAFTER.

SEA CONDITION:

ROUGH TO VERY ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL-ODISHA COASTS TILL 0000 UTC OF 15TH SEPTEMBER.

ROUGH SEA CONDITION IS LIKELY TO PREVAIL OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL-ODISHA COASTS FROM 0000 UTC OF 15TH TILL 0000 UTC OF 16TH SEPTEMBER.

FISHERMEN WARNING:

FISHERMEN ARE ADVISED NOT TO VENTURE INTO NORTH BAY OF BENGAL AND ALONG & OFF BANGLADESH, WEST BENGAL, AND ODISHA COASTS TILL 0300 UTC OF 16TH SEPTEMBER, AND ALONG AND OFF WEST BENGAL & NORTH ODHISHA COASTS TILL 17TH SEPTEMBER 2024.

REMARKS:

CURRENT ENVIRONMENTAL CONDITONS INDICATE THAT THE DEEP DEPRESSION OVER GANGETIC WEST BENGAL AND ADJOINING BANGLADESH IS LYING IN A FAVOURABLE ENVIRONMENT.

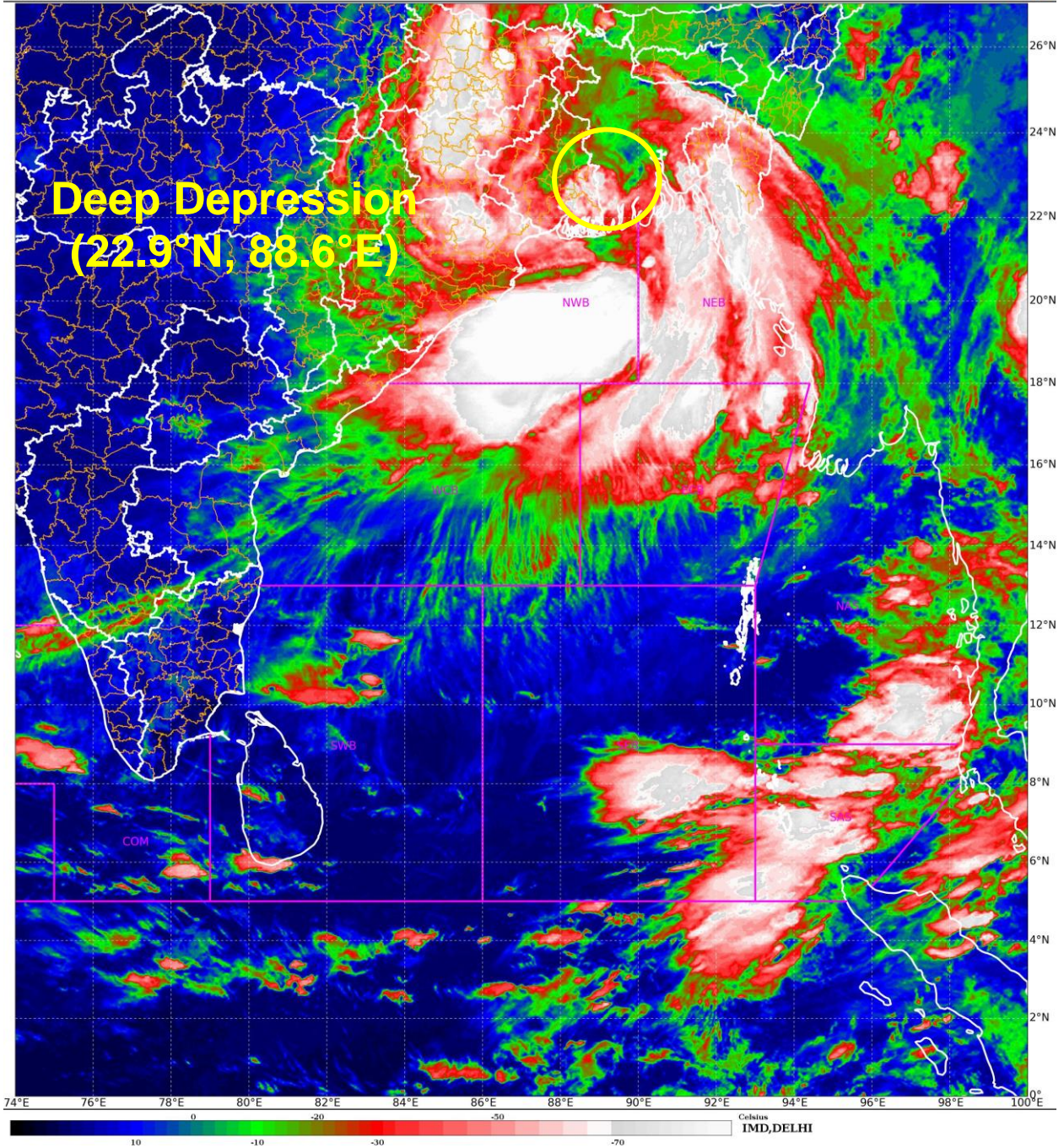
MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 5 WITH AMPLITUDE GREATER THAN 1. IT IS LIKELY TO CONTINUE IN SAME PHASE DURING NEXT 2 DAYS AND THEN LIKELY TO MOVE TO PHASE 6.

THE LOW LEVEL CONVERGENCE IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ AROUND THE SYSTEM AREA, UPPER LEVEL DIVERGENCE IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHEAST OF

THE SYSTEM. THE WIND SHEAR IS LOW TO MODERATE (10-15 KT) OVER SYSTEM AREA ALONG THE FORECAST TRACK. VORTICITY AT 850 HPA LEVEL IS AROUND $150 \times 10^{-5} \text{ S}^{-1}$ AROUND THE SYSTEM AREA AND EXTENDS UP TO 200 HPA ($50 \times 10^{-5} \text{ S}^{-1}$). THE SYSTEM IS CURRENTLY IN THE ZONE OF LOW VERTICAL WIND SHEAR AND MAINTAIN ITS INTENSITY OF DEEP DEPRESSION TILL 12 UTC OF TODAY AND LIKELY TO WEAKEN THEREAFTER.

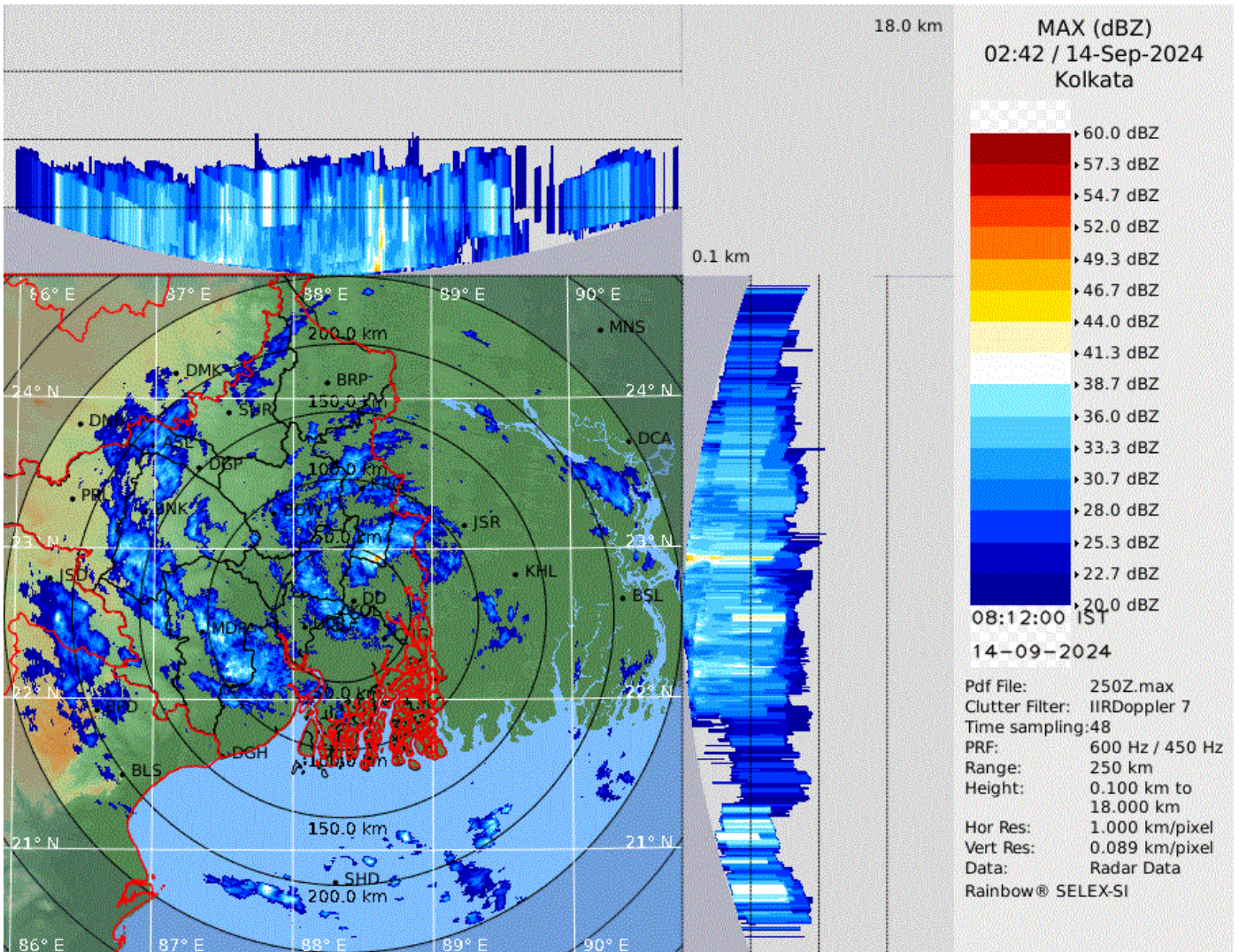
MOST OF THE NWP MODELS INDICATE THAT THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS JHARKHAND, NORTH CHHATTISGARH DURING SUBSEQUENT NEXT 48 HOURS.

DR. M. T. BUSHAIR
SC.-C, RSMC NEW DELHI



Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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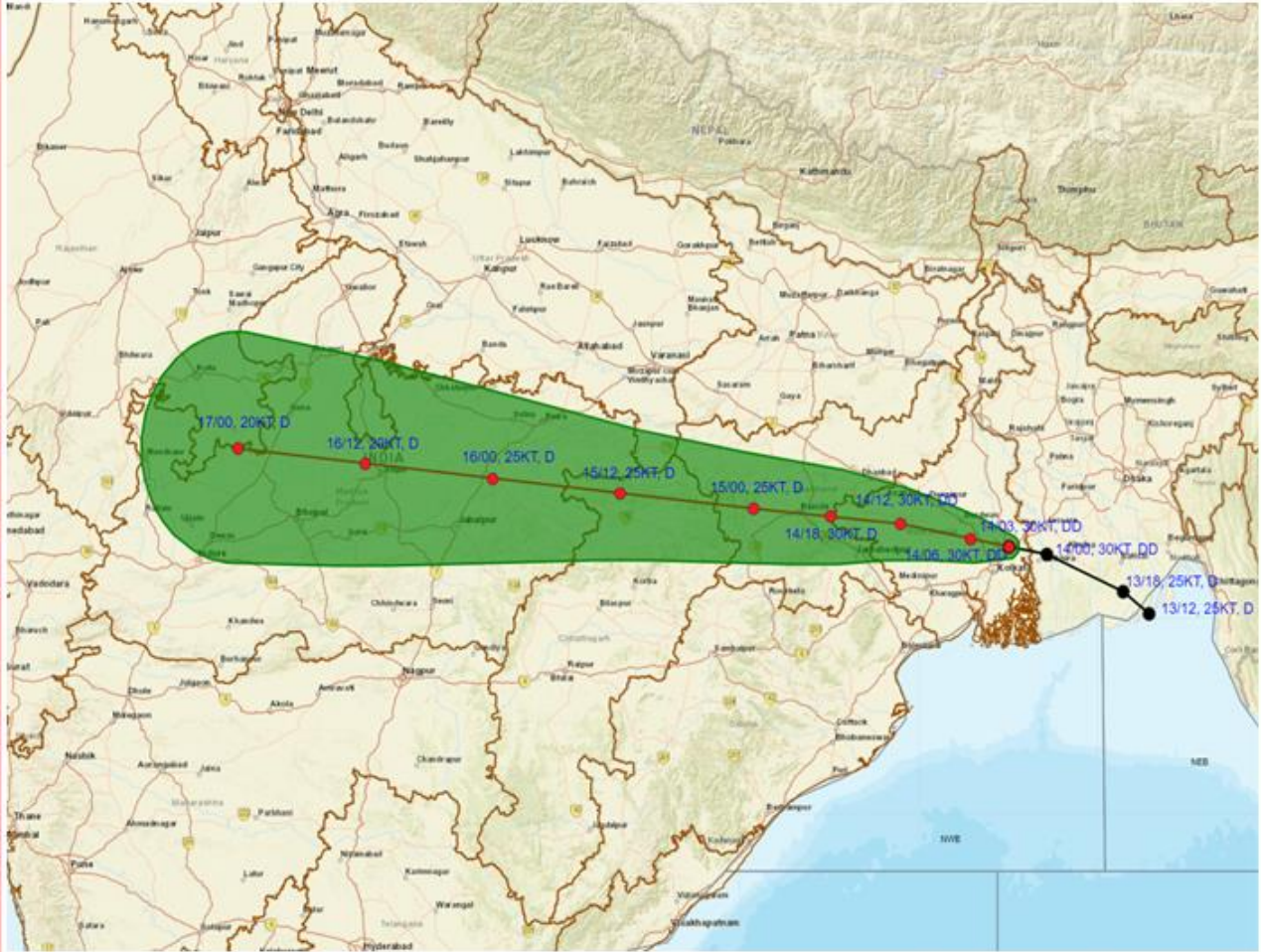
Kolkata Radar Image



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OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL AND ADJOINING BANGLADESH BASED ON 0300 UTC (0830 IST) OF 14TH SEPTEMBER, 2024.



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT
 ○ 34-47 KT
 ○ ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 ▲ CONE OF UNCERTAINTY

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OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER GANGETIC WEST BENGAL AND ADJOINING BANGLADESH BASED ON 0300 UTC (0830 IST) OF 14TH SEPTEMBER,



DATE/TIME IN UTC
IST=UTC + 0530

L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT
○ 34-47 KT
● ≥ 48 KT
— OBSERVED TRACK
— FORECAST TRACK
— CONE OF UNCERTAINTY
AREA OF MAXIMUM SUSTAINED WIND SPEED:
■ 28-33 KT (52-61 KMPH)
■ 34-49 KT (62-91 KMPH)
■ 50-63 KT (92-117 KMPH)
■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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Fishermen Warning Graphics

