



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 01.08.2023**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 01.08.2023 BASED ON 1200 UTC OF 01.08.2023.**

**SUB: DEEP DEPRESSION OVER NORTHEAST BAY OF BENGAL CROSSED BANGLADESH COAST CLOSE TO EAST OF KHEPUPARA**

THE DEEP DEPRESSION OVER NORTHEAST BAY OF BENGAL OFF BANGLADESH COAST MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 27 KMPH DURING PAST 6 HOURS AND CROSSED BANGLADESH COAST NEAR LATITUDE 21.9°N AND LONGITUDE 90.3°E CLOSE TO EAST OF KHEPUPARA DURING 1000 TO 1100 UTC AS A DEEP DEPRESSION WITH MAXIMUM SUSTAINED WIND SPEED OF 55-65 KMPH GUSTING TO 75 KMPH. CONTINUING TO MOVE WEST-NORTHWESTWARDS, IT LAY CENTRED AT 1200 UTC OF TODAY, THE 1ST AUGUST, 2023 OVER COASTAL BANGLADESH AND NEIGHBOURHOOD NEAR LATITUDE 22.5°N AND LONGITUDE 89.5°E, CLOSE TO WEST OF MONGLA (BANGLADESH, 41958), ABOUT 220 KM EAST-NORTHEAST OF DIGHA (WEST BENGAL, 42901) AND 120 KM EAST OF KOLKATA (WEST BENGAL, 42807).

IT IS LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL AND MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION TILL EARLY MORNING (0000 UTC) OF 2<sup>ND</sup> AUGUST. THEREAFTER, IT IS LIKELY TO WEAKEN INTO A DEPRESSION AND CONTINUE TO MOVE WEST-NORTHWESTWARDS DURING SUBSEQUENT 24 HOURS.

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
01.08.23/1200	22.5/89.5	55-65 gusting to 75	Deep Depression
01.08.23/1800	23.3/88.3	55-65 gusting to 75	Deep Depression
02.08.23/0000	23.8/87.1	50-60 gusting to 70	Deep Depression
02.08.23/0600	24.0/85.9	45-55 gusting to 65	Depression
02.08.23/1200	24.2/84.7	45-55 gusting to 65	Depression
03.08.23/0000	24.6/82.5	40-50 gusting to 60	Depression

ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL BAY OF BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. ESTIMATED CENTRAL PRESSURE IS 988HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER NORTH BOB AND ADJOINING CENTRAL BOB AND ALONG & OFF ALONG & OFF BANGLADESH-WEST BENGAL-NORTH ODISHA COASTS TILL 0600 UTC OF 2<sup>ND</sup> AUGUST.

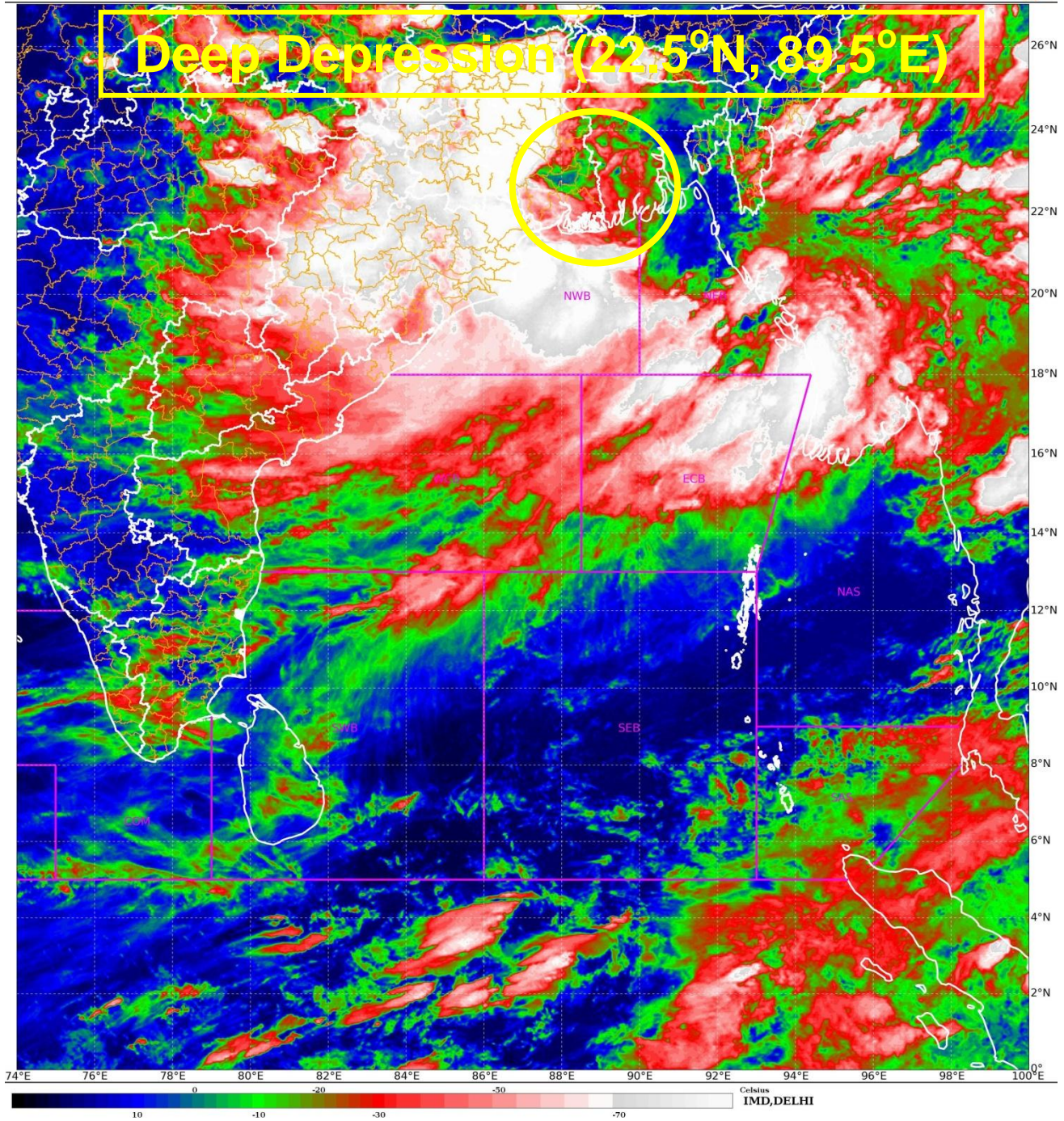
**REMARKS:**

MADDEN JULIAN OSCILLATION IS IN PHASE 1 WITH AMPLITUDE LESS THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 4-5 DAYS. HENCE MJO IS NOT LIKELY TO SUPPORT CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) REGION. HOWEVER, EQUATORIAL WAVES INDICATE WESTERLY WINDS (1-3 MPS) OVER CENTRAL & SOUTH BOB AND EASTERLY WINDS (1-3 MPS) OVER NORTH BOB, ALONG WITH PRESENCE OF ROSSBY WAVES OVER CENTRAL BOB. THUS EQUATORIAL WAVES ARE LIKELY TO SUPPORT CYCLOGENESIS OVER THE BOB REGION. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE AND AROUND THE SYSTEM AREA. THE LOW LEVEL VORTICITY HAS DECREASED IN PAST 6 HOURS AND IS AROUND  $100 \times 10^{-6} \text{S}^{-1}$  OVER CENTRAL PARTS OF NORTH BOB. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT  $40 \times 10^{-5} \text{S}^{-1}$  TO THE SOUTHWEST OF SYSTEM CENTRE OVER NORTHWEST BOB. UPPER LEVEL DIVERGENCE IS AROUND  $10 \times 10^{-5} \text{S}^{-1}$  TO THE SOUTHWEST OF SYSTEM CENTRE OVER NORTHWEST BOB AND ADJOINING EAST INDIA. VERTICAL WIND SHEAR IS HIGH ABOUT 30-40 KNOTS AROUND SYSTEM AREA AND ALONG EXPECTED TRACK. SYSTEM IS IN A MODERATELY FAVOURABLE ENVIRONMENT AND IS LIKELY TO MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION DURING NEXT 12 HOURS AND WEAKEN INTO A DEPRESSION THEREAFTER.

VARIOUS DETERMINISTIC MODELS INDICATE THAT THE SYSTEM WOULD MAINTAIN THE INTENSITY OF DEEP DEPRESSION TILL 2<sup>ND</sup> AUGUST/0000 UTC AND MOVE WEST-NORTHWESTWARDS TILL 3<sup>RD</sup> AUGUST/0000 UTC.

HENCE, IT IS INFERRED THAT THE DEEP DEPRESSION OVER COASTAL BANGLADESH IS LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL AND MAINTAIN IT'S INTENSITY OF DEEP DEPRESSION TILL EARLY MORNING (0000 UTC) OF 2<sup>ND</sup> AUGUST. THEREAFTER, IT IS LIKELY TO WEAKEN INTO A DEPRESSION AND CONTINUE TO MOVE WEST-NORTHWESTWARDS DURING SUBSEQUENT 24 HOURS.

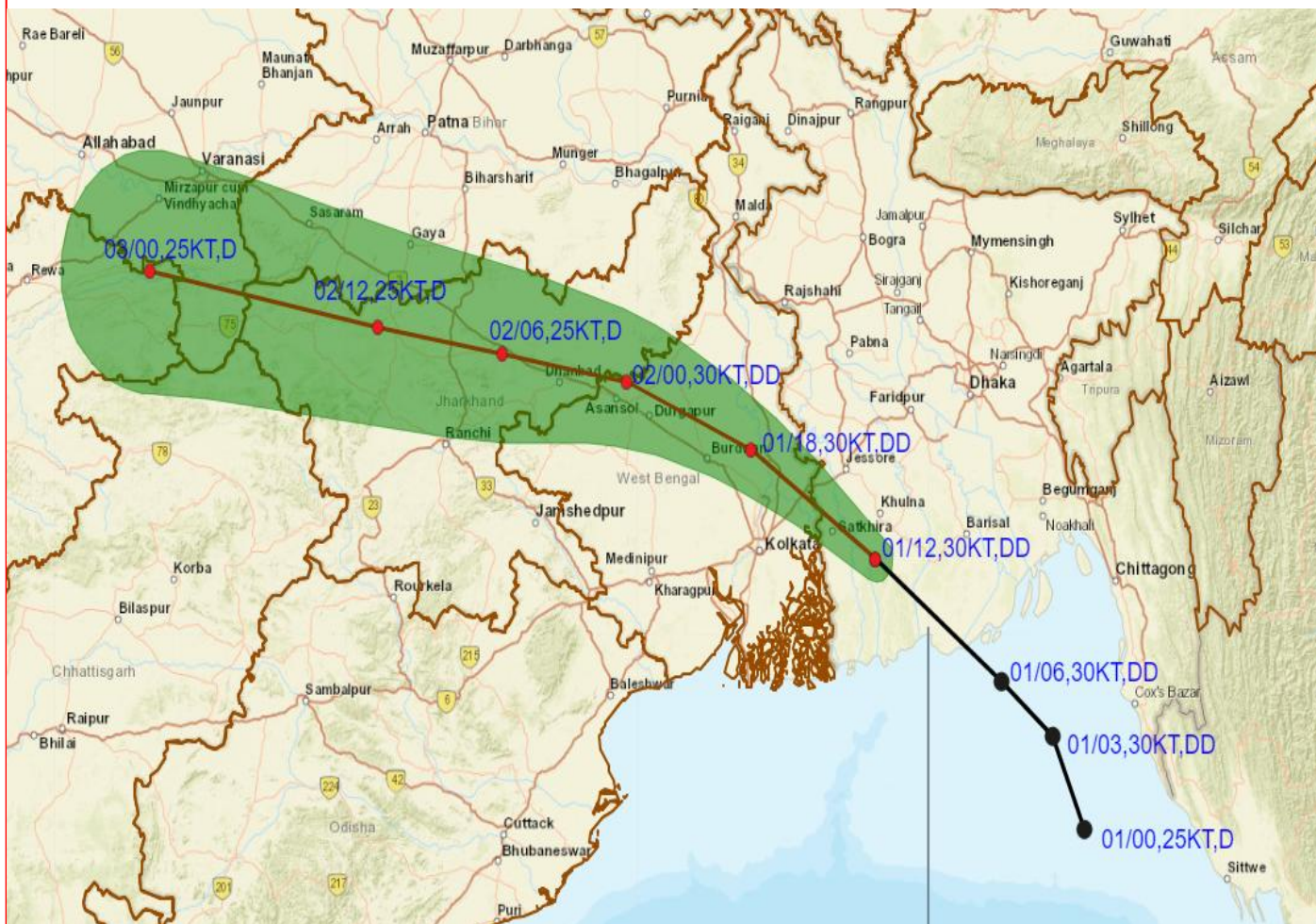
**(M. SHARMA)  
SCIENTIST-D  
RSMC NEW DELHI**



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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# OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER COASTAL BANGLADESH BASED ON 1200 UTC (1730 IST) OF 01<sup>ST</sup> AUGUST 2023.



**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 ( $\geq$  120 KT)**

- LESS THAN 34 KT
- 34-47 KT
- $\geq$  48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY



# OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER COASTAL BANGLADESH BASED ON 1200 UTC (1730 IST) OF 01<sup>ST</sup> AUGUST 2023.



**DATE/TIME IN UTC**  
 IST=UTC + 0530  
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**SuCS:** SUPER CYCLONIC STORM (≥ 120 KT)

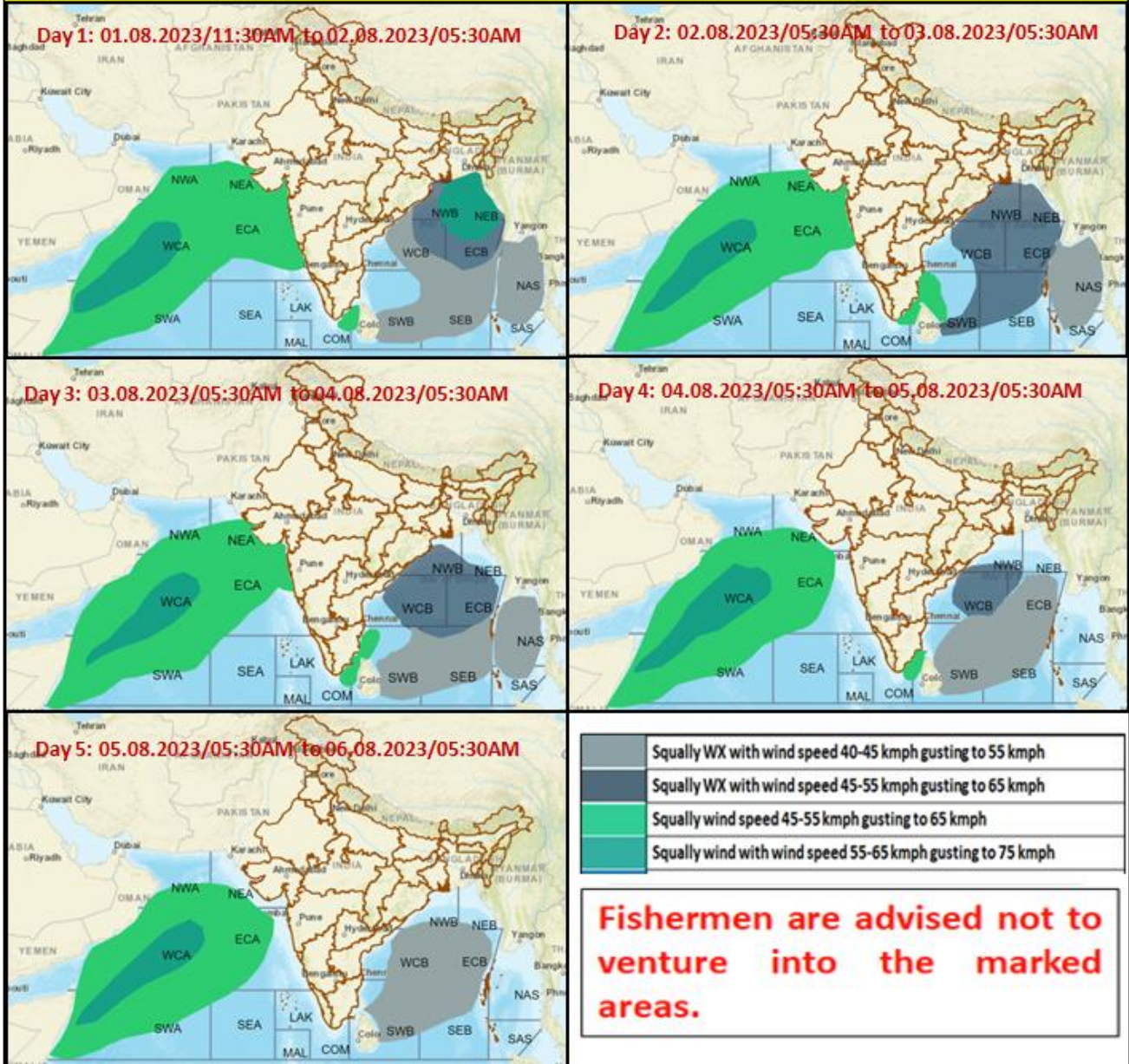
● LESS THAN 34 KT  
 ○ 34-47 KT  
 ● ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 ● CONE OF UNCERTAINTY  
**AREA OF MAXIMUM SUSTAINED WIND SPEED:**  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34-49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■ ≥ 64 KT (≥118 KMPH)

### 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



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