REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL WEATHER OUTLOOK

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 19.08.2022

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1000 UTC OF 19.08.2022 BASED ON 0600 UTC OF 19.08.2022.

SUB: DEPRESSION INTENSIFIED INTO A DEEP DEPRESSION OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL

THE DEPRESSION OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL MOVED NORTHWESTWARDS DURING PAST 06 HOURS WITH A SPEED OF 20 KMPH, INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTERED AT 0600 UTC OF TODAY, THE 19TH AUGUST, 2022 OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL NEAR LATITUDE 21.1°N AND LONGITUDE 88.8°E, ABOUT 200 KM EAST-SOUTHEAST OF BALASORE (42895), 140 KM EAST-SOUTHEAST OF DIGHA (42901), 100 KM SOUTHEAST OF SAGAR ISLANDS (42903) AND 120 KM SOUTH-SOUTHEAST OF CANNING (42812).

CONTINUING TO MOVE IN THE SAME DIRECTION, IT IS VERY LIKELY TO CROSS WEST BENGAL AND ODISHA COASTS BETWEEN BALASORE (42895) & SAGAR ISLANDS (42903) AROUND 1200 UTC OF TODAY, THE 19TH AUGUST 2022. AFTER LANDFALL, IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, WEST BENGAL AND JHARKHAND TOWARDS NORTH CHHATTISGARH AND WEAKEN GRADUALLY.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION (LAT. ^{0}N/ LONG. ^{0}E	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
19.08.22/0600	21.1/88.8	55-65 GUSTING TO 75	DEEP DEPRESSION
19.08.22/1200	21.5/88.0	55-65 GUSTING TO 75	DEEP DEPRESSION
19.08.22/1800	21.9/87.0	50-60 GUSTING TO 70	DEEP DEPRESSION
20.08.22/0000	22.2/86.0	45-55 GUSTING TO 65	DEPRESSION
20.08.22/0600	22.4/85.0	45-55 GUSTING TO 65	DEPRESSION

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. ESTIMATED CENTRAL PRESSURE IS ABOUT 992 HPA AROUND SYSTEM CENTRE OVER NORTHWEST BAY OF BENGAL. 24 HOUR PRESSURE FALL OF 2-3 HPA IS REPORTED ALONG WEST BENGAL-NORTH ODISHA COASTS AND THE MAXIMUM PRESSURE DEPARTURE IS OBSERVED OVER DIGHA (-3.0 HPA). LOWEST MEAN SEA LEVEL PRESSURE IS REPORTED OVER DIGHA (996.8 HPA) WITH 24 HOUR PRESSURE CHANGE OF -3.0 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL, ODISHA AND BANGLADESH COASTS TILL 0600 UTC OF 20TH AUGUST.

AS PER INSAT 3D IMAGERY AT 0600 UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.0. 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^{0}C. AS PER MULTISAT WINDS AT 0600 UTC, STRONGER

WINDS ARE PREVAILING IN THE NORTHEAST & NORTHWEST SECTORS OF THE SYSTEM OVER NORTH BAY OF BENGAL & ADJOINING WEST BENGAL & BANGLADESH COASTS.

REMARKS:

MADDEN JULIAN OSCILLATION (MJO) INDEX IS CRRENTLY IN PHASE 1 WITH AMPLITUDE MORE THAN 1. IT IS LIKELY TO CONTINUE IN SAME PHASE DURING NEXT 2-3 DAYS. CURRENT CONDITIONS INDICATE THAT THE SYSTEM OVER NORTHWEST BAY OF BENGAL IS IN FAVOURABLE ENVIRONMENT WITH SEA SURFACE TEMPERATURE OF ABOUT 29-30°C OVER NORTH BAY OF BENGAL. OCEAN THERMAL ENERGY IS ABOUT 35-50 KJ/CM^2 NEAR SYSTEM CENTRE. LOW LEVEL RELATIVE VORTICITY IS AROUND 200X10^{-6} S^{-1} TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT 20X10^{-5} S^{-1} TO THE SOUTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS ABOUT 20X10^{-5} S^{-1} TO THE SOUTHEAST OF THE SYSTEM CENTRE AND ASSOCIATED WESTWARD OUTFLOW IS PREVAILING IN UPPER LEVELS. VERTICAL WIND SHEAR OF AROUND 20 KNOTS NEAR SYSTEM AREA OVER NORTHWEST BAY OF BENGAL AND IS HIGH 25-30 KNOTS ALONG THE FORECAST TRACK.

MOST OF THE NUMERICAL MODELS INDICATE THAT THE SYSTEM WOULD MAINTAIN IT'S INTENSITY AND MOVE WEST-NORTHWESTWARDS DURING NEXT 48 HOURS.

IN VIEW OF ALL THE ABOVE, THE DEEP DEPRESSION OVER NORTHWEST BAY OF BENGAL AND ADJOINING NORTHEAST BAY OF BENGAL IS LIKELY TO CROSS WEST BENGAL AND ODISHA COASTS BETWEEN BALASORE (42895) & SAGAR ISLANDS (42903) AROUND 1200 UTC OF TODAY THE 19TH AUGUST, 2022. AFTER LANDFALL, IT WOULD MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, WEST BENGAL AND JHARKHAND TOWARDS NORTH CHHATTISGARH AND WEAKEN GRADUALLY.

(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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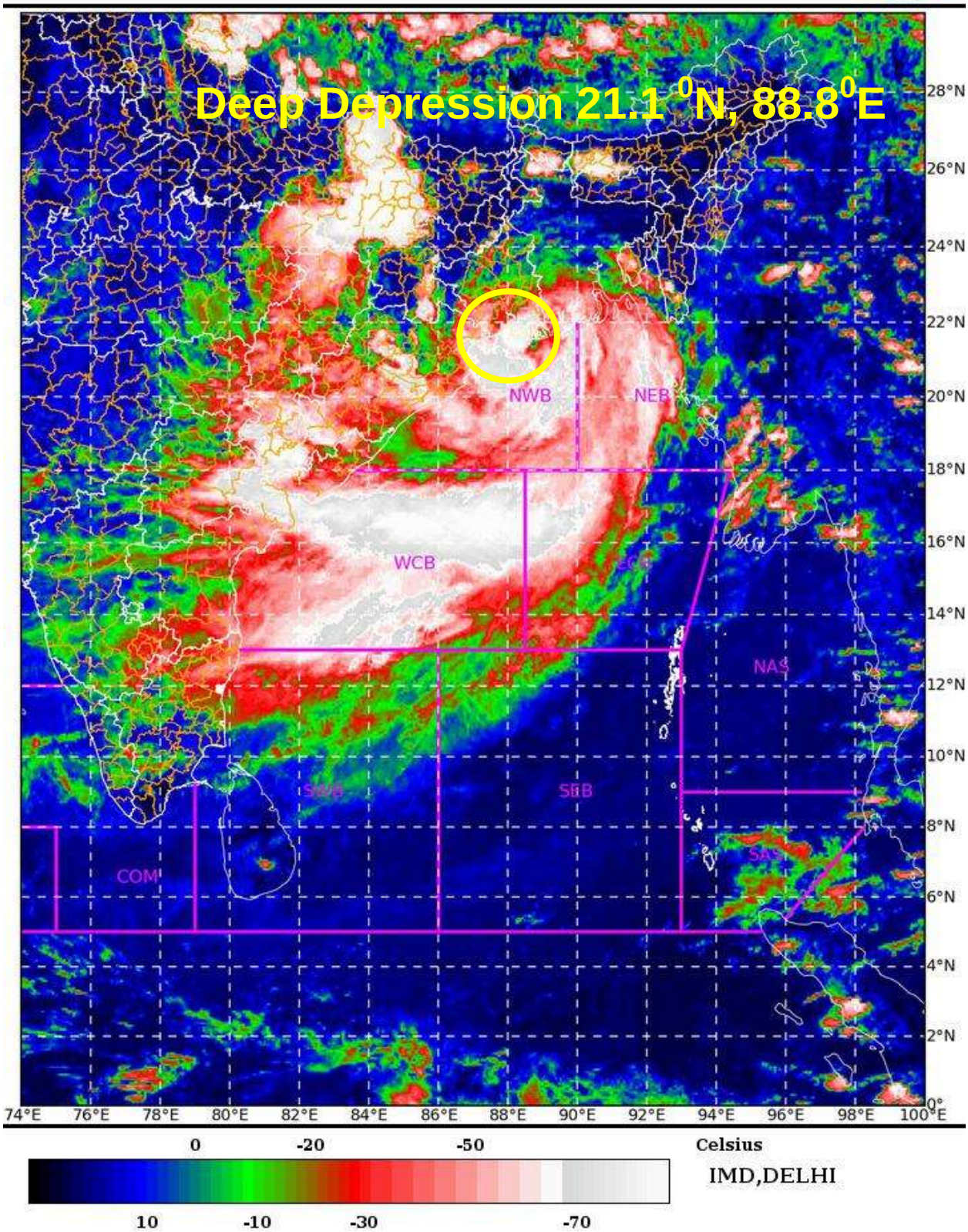
SAT : INSAT-3D IMG 19-08-2022/(0800 to 0826) GMT

IMG_TIR1_TEMP 10.8 um 19-08-2022/(1330 to 1356) IST

L1C Mercator



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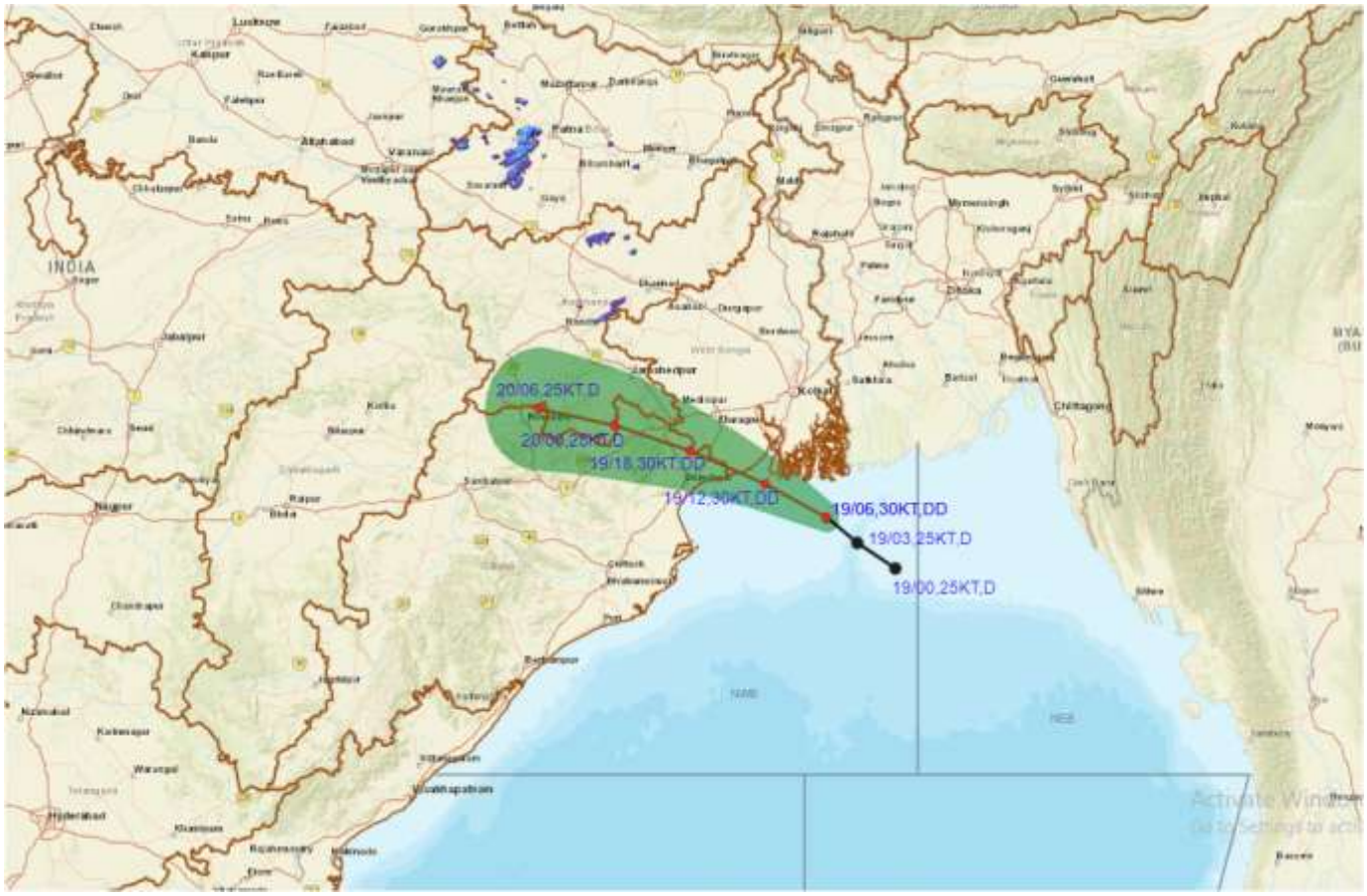
OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0600 UTC OF 19th AUGUST, 2022



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

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
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OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0600 UTC OF 19th AUGUST, 2022

DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
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LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY

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

	Squally WX with wind speed 40-45 gusting to 55 kmph
	Squally wind speed 40-50 kmph gusting to 60 kmph
	Squally wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed 55-65 kmph gusting to 75 kmph

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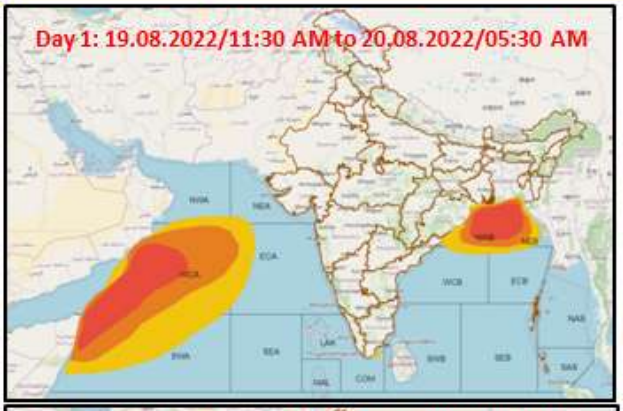
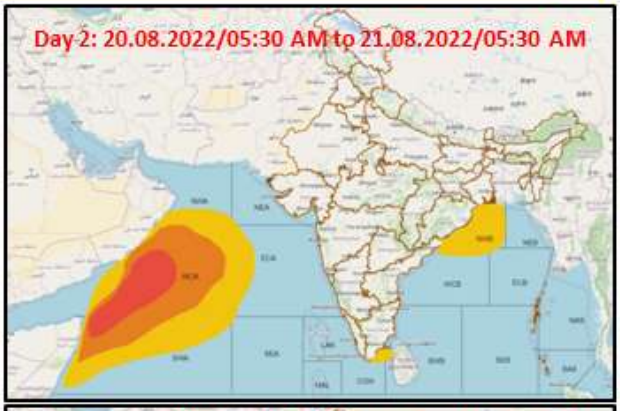
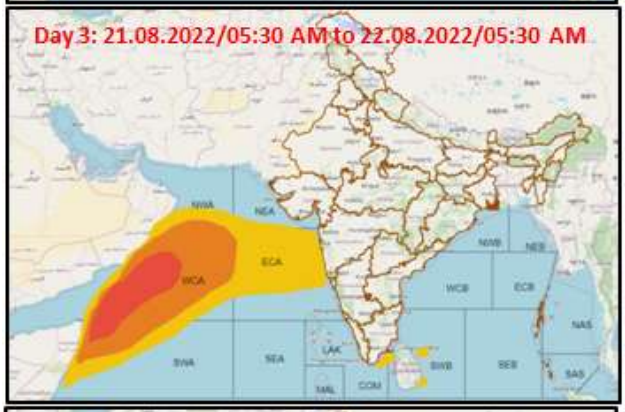
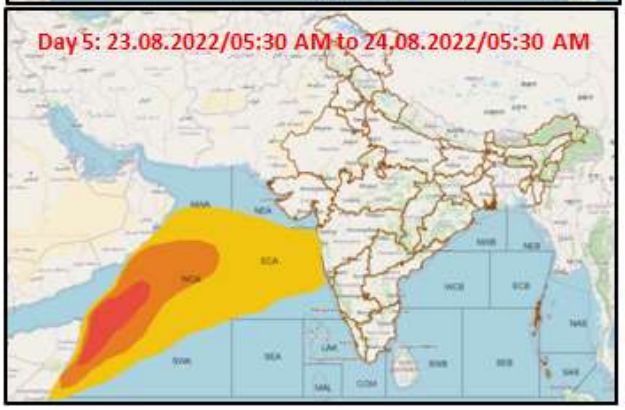
Probability of exceedance of maximum sustained winds ≥ 45 kmph









	Probabilty of exceedence
	Low (1-33%)
	Moderate (34-67%)
	High (68-100%)

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