



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 22.10.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 168 HOURS ISSUED AT 0400 UTC OF 22.10.2024 BASED ON 0000 UTC OF 22.10.2024.

BAY OF BENGAL:

YESTERDAY'S WELL MARKED LOW PRESSURE AREA OVER EASTCENTRAL BAY OF BENGAL MOVED WEST-NORTHWESTWARDS, CONCENTRATED INTO A DEPRESSION AND LAY CENTRED AT 0000 UTC OF TODAY, THE 22ND OCTOBER, OVER THE SAME REGION NEAR LATITUDE 15.4° N AND LONGITUDE 91.2°E, ABOUT 730 KM SOUTHEAST OF PARADIP (42976, ODISHA), 770 KM SOUTH-SOUTHEAST OF SAGAR ISLAND (42903, WEST BENGAL) AND 740 KM SOUTH-SOUTHEAST OF KHEPUPARA (41984, BANGLADESH).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A CYCLONIC STORM BY 23RD OCTOBER, 2024 OVER EASTCENTRAL BAY OF BENGAL. THEREAFTER, CONTINUING TO MOVE NORTHWESTWARDS, IT IS VERY LIKELY TO INTENSIFY INTO A SEVERE CYCLONIC STORM OVER NORTHWEST BAY OF BENGAL AROUND 0300 UTC OF 24TH AND CROSS NORTH ODISHA AND WEST BENGAL COASTS BETWEEN PURI AND SAGAR ISLAND DURING 1800 UTC OF 24TH AND 0000 UTC OF 25TH OCTOBER, 2024 AS A SEVERE CYCLONIC STORM WITH A WIND SPEED OF 100-110 KMPH GUSTING 120 KMPH.

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
22.10.24/0000	15.4/91.2	35-45 gusting to 55	Depression
22.10.24/0600	15.6/90.7	40-50 gusting to 60	Depression
22.10.24/1200	15.8/90.2	45-55 gusting to 65	Depression
22.10.24/1800	16.1/89.7	50-60 gusting to 70	Deep Depression
23.10.24/0000	16.5/89.2	55-65 gusting to 75	Deep Depression
23.10.24/1200	17.4/88.4	65-75 gusting to 85	Cyclonic Storm
24.10.24/0000	18.7/87.8	80-90 gusting to 100	Cyclonic Storm
24.10.24/1200	20.0/87.5	95-105 gusting to 115	Severe Cyclonic Storm
25.10.24/0000	21.0/86.8	100-110 gusting to 120	Severe Cyclonic Storm
25.10.24/1200	21.5/85.8	70-80 gusting 90	Cyclonic Storm

CLOUDS ARE ORGANISED IN SHEAR PATTERN. THE ASSOCIATED T.NO. IS T 1.5. SCATTERED TO BROKEN LOW/MED CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTH EAST BAY OF BENGAL, CENTRAL BAY OF BENGAL, SOUTH BAY OF BENGAL, NORTH ANDAMAN SEA & NEIGHBOURHOOD (MINIMUM CLOUD TOP TEMPERATURE MINUS 80-90 DEG CEL).

ESTIMATED CENTRAL PRESSURE IS 1004 HPA AND MAXIMUM SUSTAINED WIND SPEED IS 20 KNOTS GUSTING TO 30 KNOTS.

UNDER IT'S INFLUENCE:

(II) WIND WARNING:

EASTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY ON 22ND OCTOBER, 55-65 GUSTING TO 75 KMPH BY 22ND NIGHT, 70-90 KMPH GUSTING TO 100 KMPH FROM 23RD EVENING TILL 24TH MORNING.

ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 22ND EVENING, 70-90 GUSTING TO 65 KMPH FROM 23RD MORNING TO 24TH AFTERNOON.

NORTHWEST BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 23RD MORNING. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 70-90 GUSTING TO 100 KMPH FROM 23RD NIGHT TO 24TH MORNING AND 100-110 KMPH GUSTING TO 120 KMPH FROM 24TH OCT EVENING TO 25TH OCT MORNING AND DECREASE GRADUALLY THEREAFTER.

ADJOINING AREAS OF NORTHEAST BAY OF BENGAL: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 23RD NIGHT TILL 25TH MORNING AND DECREASE GRADUALLY THEREAFTER.

ALONG & OFF ODISHA-WEST BENGAL COASTS: SQUALLY WIND SPEED REACHING 40-50 GUSTING TO 60 KMPH IS VERY LIKELY TO COMMENCE FROM 23RD OCT EVENING. IT WOULD GRADUALLY INCREASE BECOMING GALE WIND SPEED REACHING 100-110 KMPH GUSTING TO 120 KMPH FROM 24TH OCT EVENING TILL 25TH OCT MORNING AND DECREASE GRADUALLY THEREAFTER.

(III) SEA CONDITION:

EASTCENTRAL BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** ON 22ND OCTOBER, BECOMING **VERY ROUGH TO HIGH** FROM 23RD MORNING TILL 24TH OCTOBER MORNING.

ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** ON 23RD AND 24TH OCTOBER.

NORTHWEST BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** FROM 23RD MORNING AND WOULD BECOME **HIGH TO VERY HIGH** FROM 23RD NIGHT TILL 25TH MORNING AND IMPROVE GRADUALLY THEREAFTER.

ADJOINING AREAS OF NORTHEAST BAY OF BENGAL: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** FROM 23RD NIGHT TILL 25TH MORNING AND IMPROVE GRADUALLY THEREAFTER.

ALONG & OFF ODISHA-WEST BENGAL COASTS: SEA CONDITION IS LIKELY TO BE **ROUGH TO VERY ROUGH** FROM **23RD EVENING** AND WOULD BECOME **HIGH TO VERY HIGH** FROM **24TH OCTOBER EVENING TO 25TH OCT FORENOON** AND IMPROVE GRADUALLY THEREAFTER.

(IV) FISHERMEN WARNING:

FISHERMEN ARE ADVISED NOT TO VENTURE INTO

- EASTCENTRAL BAY OF BENGAL DURING 22ND-24TH OCTOBER.
 - **ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL ON 23RD AND 24TH OCT.**
 - **NORTH BAY OF BENGAL AND ALONG & OFF ODISHA, WEST BENGAL AND BANGLADESH COASTS DURING 23RD TO 25TH OCTOBER.**
- FISHERMEN OUT AT SEA ARE ADVISED TO RETURN TO COASTS BY 22ND OCT.

(C) ACTION SUGGESTED [AFFECTED AREAS OF ODISHA AND WEST BENGAL DUE TO HEAVY RAINFALL]

- FISHERMEN ARE ADVISED NOT TO VENTURE INTO
 - ✓ EASTCENTRAL BAY OF BENGAL DURING 22ND-24TH OCTOBER.
 - ✓ **ADJOINING AREAS OF WESTCENTRAL BAY OF BENGAL ON 23RD AND 24TH OCT.**
 - ✓ **NORTH BAY OF BENGAL AND ALONG & OFF ODISHA-WEST BENGAL COASTS DURING 23RD TO 25/00 UTC.**
- FISHERMEN OUT AT SEA ARE ADVISED TO RETURN TO COASTS BY 22ND OCTOBER.
- TOTAL SUSPENSION OF FISHING OPERATIONS DURING 22ND TO 25TH OCT OVER CENTRAL AND NORTH BAY OF BENGAL.
- JUDICIOUS REGULATION OF ONSHORE/OFFSHORE, PORT AND MARITIME ACTIVITIES INCLUDING SHIPPING.
- JUDICIOUS REGULATION OF TOURISM ACTIVITIES IN ANDAMAN & NICOBAR ISLANDS.

ARABIAN SEA:

YESTERDAY'S **LOW PRESSURE AREA** OVER WESTCENTRAL ARABIAN SEA PERSIST OVER THE SAME REGION WITH THE ASSOCIATED CYCLONIC CIRCULATION EXTENDING UPTO 3.1 KM ABOVE MEAN SEA LEVEL AT 0000 UTC OF TODAY, THE 22ND OCTOBER, 2024. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDSS AWAY FROM INDIAN COAST AND WEAKEN FURTHER DURING NEXT 12 HOURS.

SQUALLY WEATHER WIND SPEED REACHING 20-30 GUSTING TO 40 KMPH WITH MODERATE SEA CONDITION IS VERY LIKELY OVER WESTCENTRAL ARABIAN SEA DURING NEXT 24 HOURS AND IMPROVE THEREAFTER.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ADJOINING SOUTHEAST ARABIAN SEA OFF SOUTH MAHARASHTRA-GOA-KARNATAKA-KERALA COASTS AND WESTCENTRAL BAY OF BENGAL (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 70-80 DEGREE CELSIUS). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER GULF OF CAMBAY REST SOUTHEAST ARABIAN SEA, LAKSHADWEEP ISLAND AREA AND COMORIN AREA.

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

***NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY**

REMARKS:

THE MADDEN-JULIAN OSCILLATION (MJO) IS CURRENTLY IN PHASE 5, WITH AMPLITUDE MORE THAN 1, AND IS EXPECTED TO MOVE ACROSS PHASE 5 DURING NEXT 7 DAYS WITH FURTHER INCREASING AMPLITUDE. THUS, MJO WOULD SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL DURING NEXT 5 DAYS.

THE GUIDANCE FROM NCICS BASED FORECAST OVER BOB INDICATES WESTERLY WINDS (1-3 MPS) OVER SOUTH BOB AND ADJOINING EQUATORIAL INDIAN OCEAN AND EASTERLY WINDS (1-3 MPS) OVER WESTCENTRAL BOB. EASTWARD MOVING MJO & KELVIN WAVES ALONG WITH EQUATORIAL ROSSBY WAVES ARE ALSO LIKELY OVER THE CENTRAL BAY OF BENGAL DURING NEXT 5-7 DAYS. THESE FEATURES INDICATE HIGHLY FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS (FORMATION OF DEPRESSION) OVER THE CENTRAL PARTS OF THE BAY OF BENGAL.

BAY OF BENGAL (BOB)

THE SEA SURFACE TEMPERATURE (SST) IS 29-32°C OVER ENTIRE BOB. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS >100 KJ/CM² OVER NORTHEAST BOB AND WESTCENTRAL BOB, <80 KJ/CM² OVER NORTHWEST & ADJOINING WESTCENTRAL BOB & 80-100 KJ/CM² OVER REMAINING BOB. A ZONE OF POSITIVE CYCLONIC VORTICITY OF 80-100X 10⁻⁵ OVER EASTCENTRAL BAY OF BENGAL & ADJOINING NORTH ANDAMAN SEA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW-LEVEL CONVERGENCE IS 20 X10⁻⁵S⁻¹ OVER SYSTEM AREA. POSITIVE UPPER-LEVEL DIVERGENCE IS 30X10⁻⁵S⁻¹ TO THE EAST OF SYSTEM AREA OVER NORTH ANDAMAN SEA. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE OVER CENTRAL BOB AND HIGH OVER NORTH BOB. UPPER TROPOSPHERIC RIDGE RUNS ALONG 17⁰N.

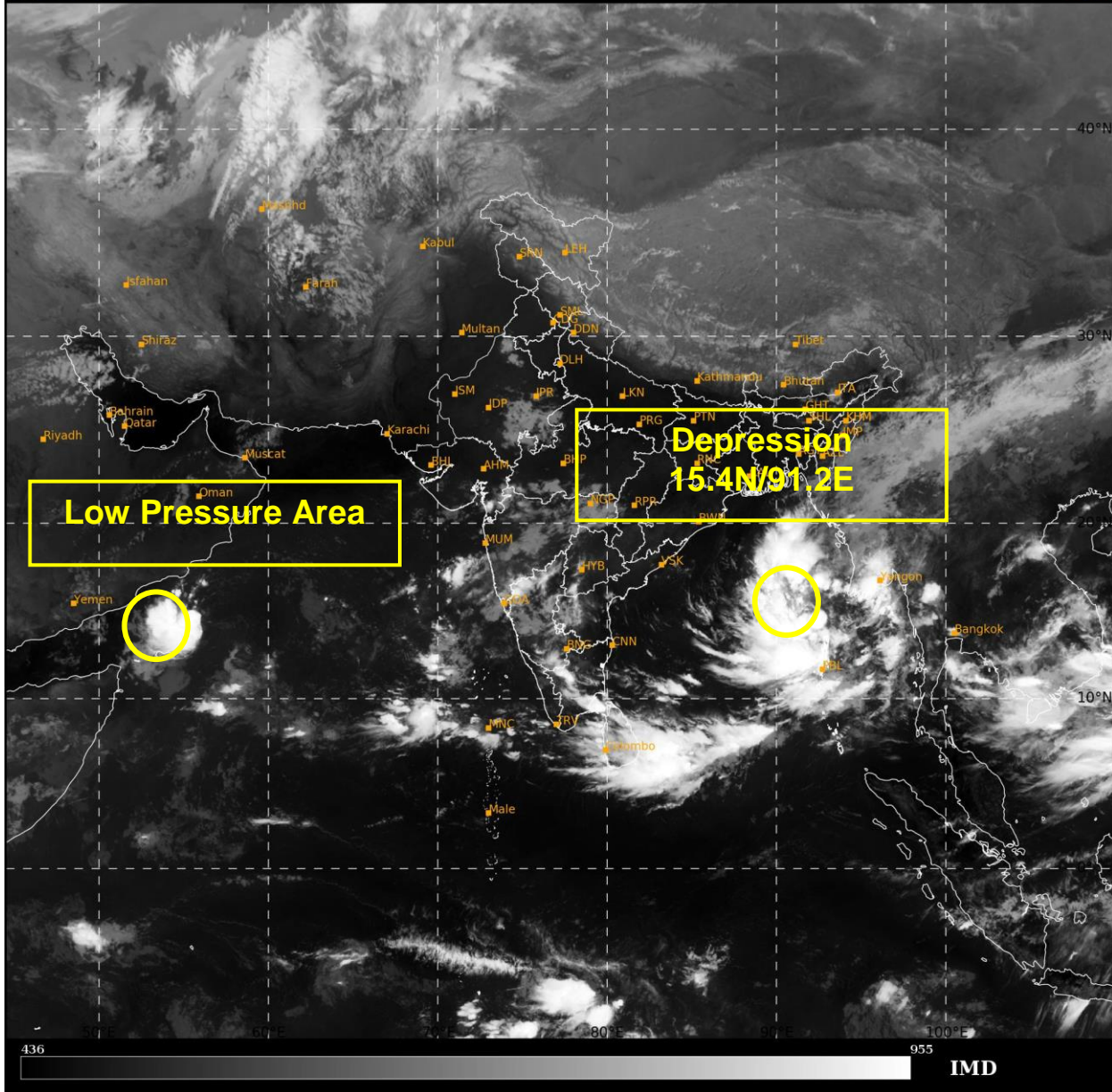
ARABIAN SEA (AS)

MOST OF THE MODELS ARE INDICATING NEARLY WESTWARDS MOVEMENT AND WEAKENING OF THE LOW PRESSURE AREA OVER WESTCENTRAL ARABIAN BY 22/00 UTC.

(D R PATTANAİK)
HEAD RSMC

SAT : INSAT-3S IMG
IMG_TIR1 10.8 um
L1C Mercator

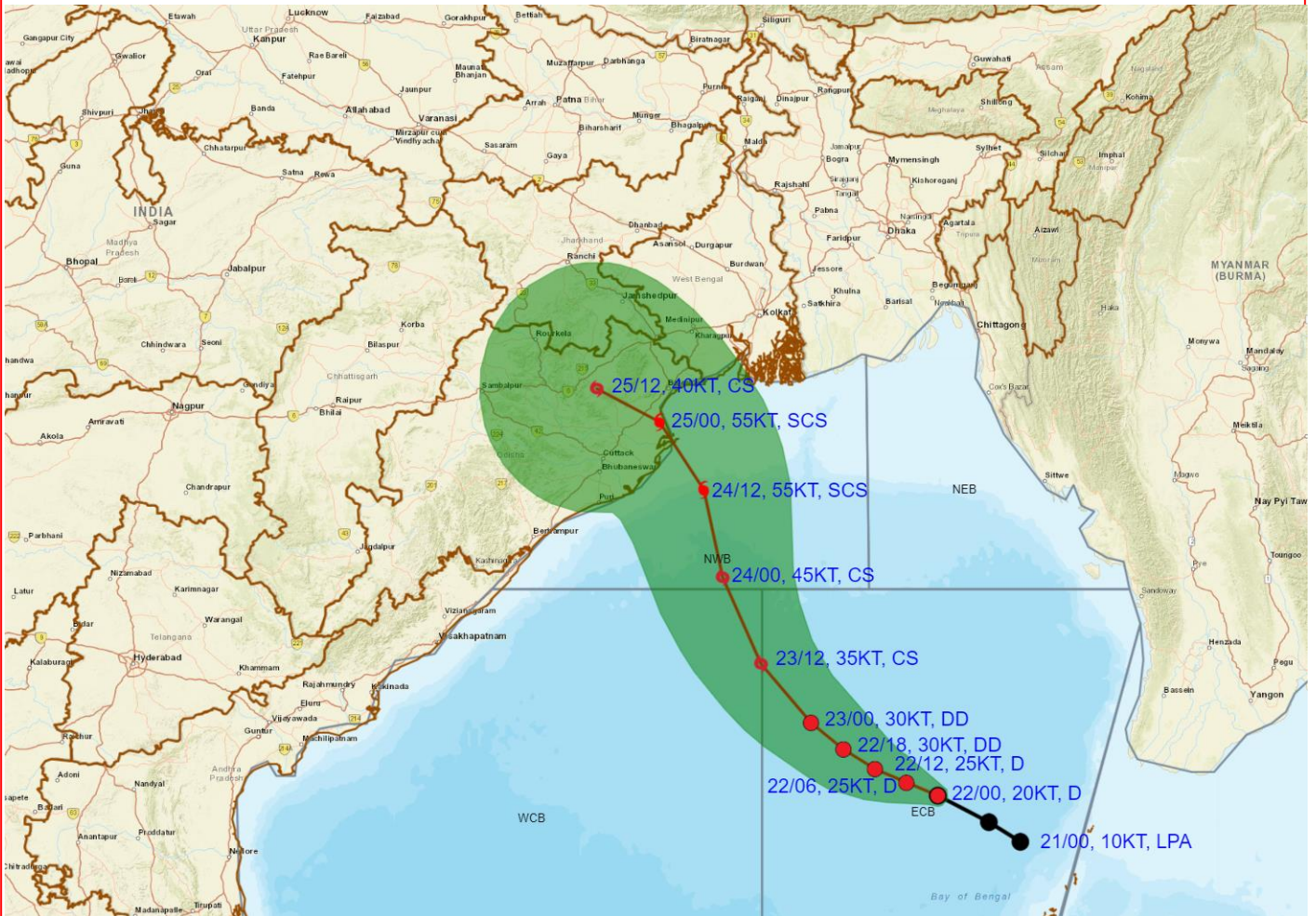
22-10-2024/(0230 to 0257) GMT
22-10-2024/(0800 to 0827) IST



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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0000 UTC (0530 Hrs. IST) OF 22ND OCTOBER 2024



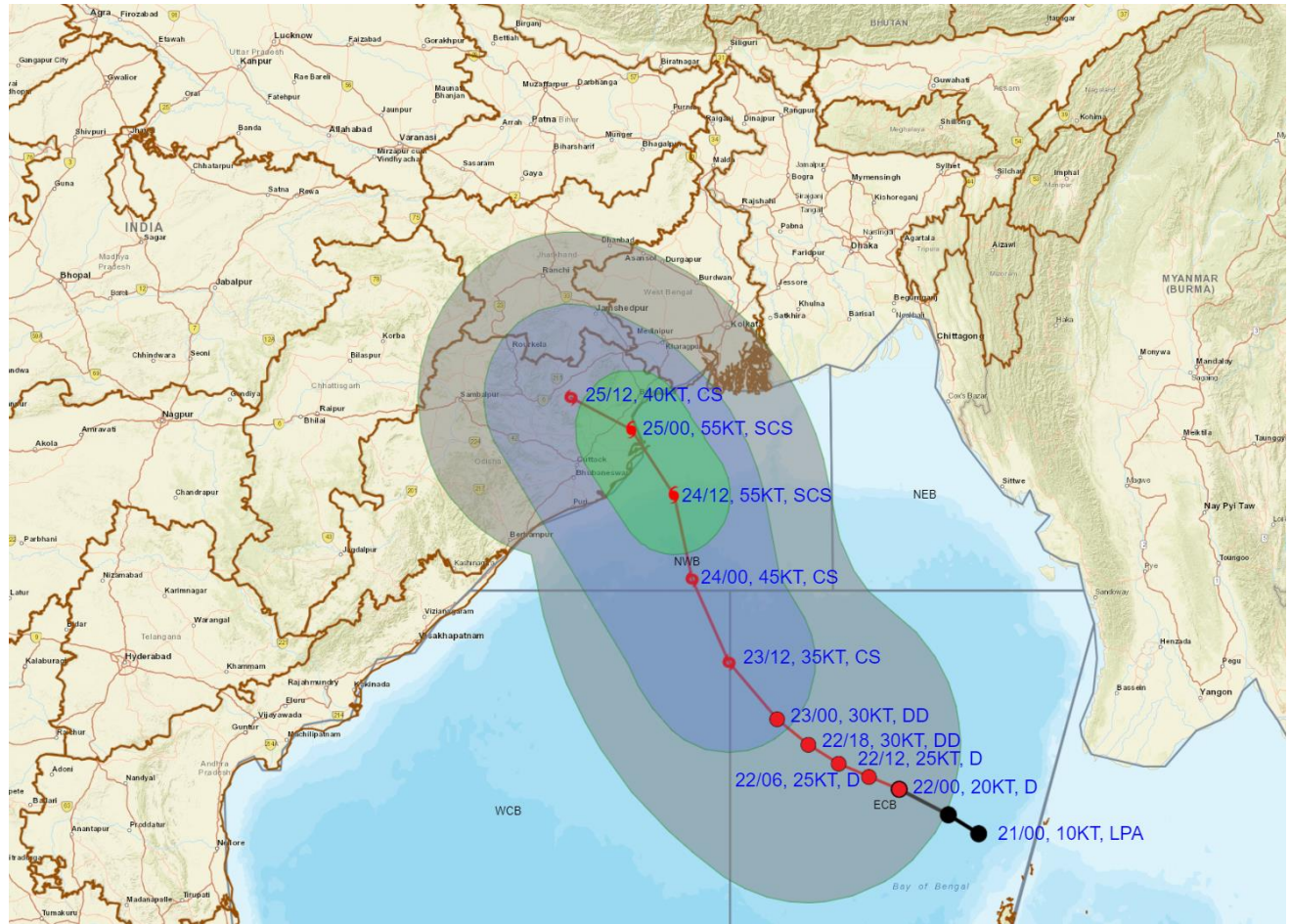
DATE/TIME IN UTC **1KT=1.85 KMPH**
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC 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 ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER EASTCENTRAL BAY OF BENGAL BASED ON 0000 UTC (0530 Hrs. IST) OF 22ND OCTOBER 2024



DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
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D: DEPRESSION (17-27 KT)
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CS: CYCLONIC STORM (34-47 KT)
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SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

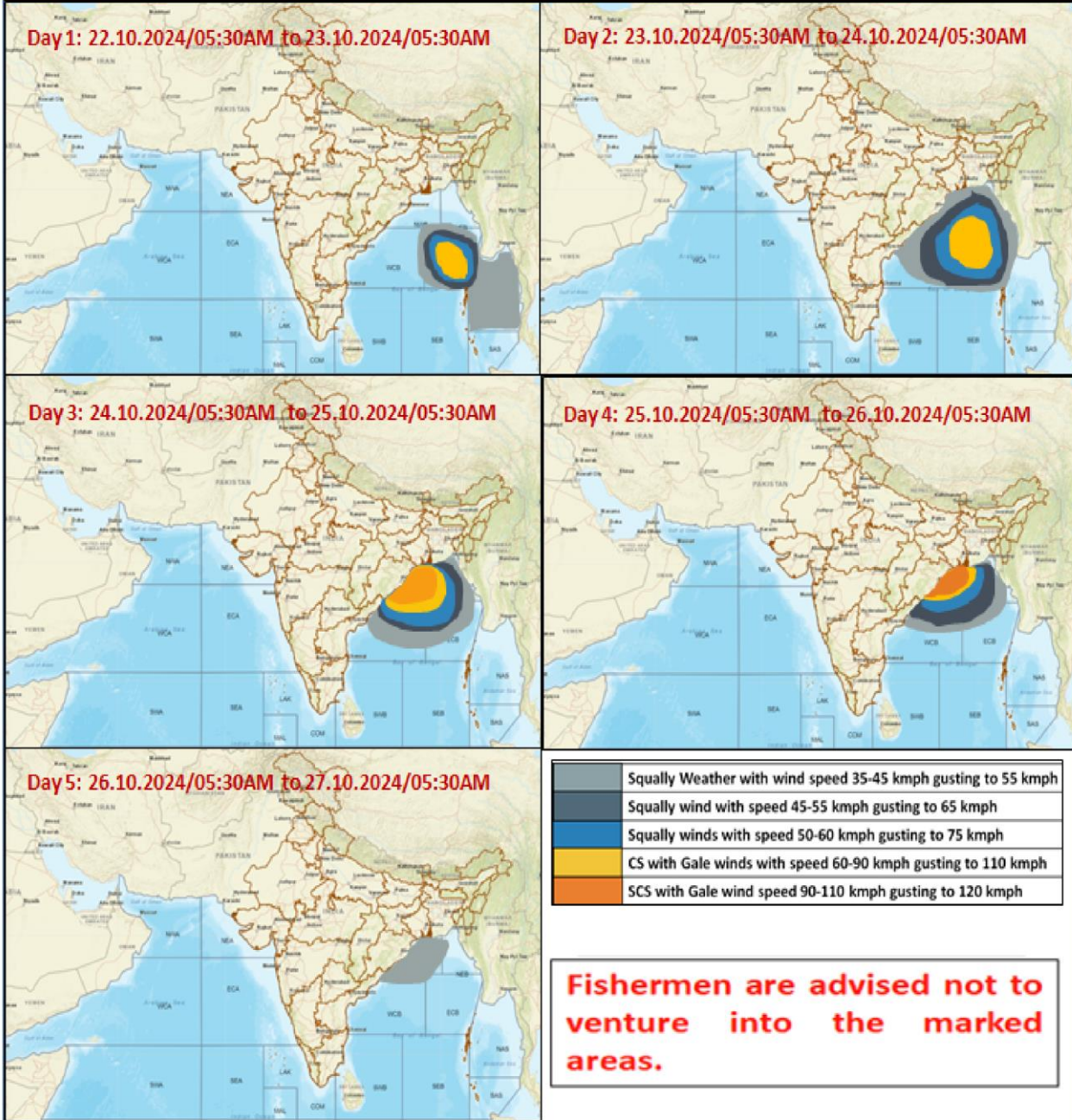
● LESS THAN 34 KT
 ○ 34-47 KT
 ○ ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 ○ CONE OF UNCERTAINTY
AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

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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