



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 27.08.2024**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 1530 UTC OF 27.08.2024 BASED ON 1200 UTC OF 27.08.2024.**

**LAND DEPRESSION OVER NORTHWEST INDIA:**

**SUB: (A) DEEP DEPRESSION OVER SAURASHTRA & KACHCHH AND ADJOINING NORTH GUJARAT**

THE DEEP DEPRESSION OVER NORTH GUJARAT MOVED NEARLY WESTWARDS WITH A SPEED OF 12 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 27<sup>TH</sup> AUGUST OVER SAURASHTRA & KACHCHH AND ADJOINING NORTH GUJARAT NEAR LATITUDE 23.7°N AND LONGITUDE 71.0 °E, ABOUT 40 KM EAST-NORTHEAST OF RAPAR (INDIA), 100 KM NORTHEAST OF NEW KANDLA (42639), 130 KM EAST-NORTHEAST OF BHUJ (42634) AND 220 KM EAST-NORTHEAST OF NALIYA (42631).

IT IS LIKELY TO MOVE SLOWLY WEST-SOUTHWESTWARDS ACROSS SAURASHTRA & KACHCHH REGION AND REACH SAURASHTRA & KACHCHH COAST & ADJOINING AREAS OF PAKISTAN AND NORTHEAST ARABIAN SEA BY MORNING OF 29TH AUGUST.

INSAT 3DR IMAGERY AT 1200 UTC SHOWS SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER KUTCH SAURASHTRA SOUTH PAKISTAN NORTHEAST ARABIAN SEA GULF OF KUTCH (MINIMUM CTT MINUS 93 DEG CEL) AND MODERATE TO INTENSE CONVECTION OVER SOUTH RAJASTHAN GUJARAT REGION GULF OF CAMBAY AND WEAK TO MODERATE CONVECTION OVER SOUTHWEST MADHYA PRADESH AND MADHYA MAHARASHTRA KONKAN.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KTS GUSTING TO 40 KTS. ESTIMATED CENTRAL PRESSURE IS 992 HPA. AT 1200 UTC, KANDLA REPORTED MEAN SEA LEVEL PRESSURE OF 993.7 HPA & PRESSURE CHANGE IN 24 HOURS IS -2.5 HPA, WIND SPEED 5 KT. BHUJ REPORTED MEAN SEA LEVEL PRESSURE OF 994.2 HPA & PRESSURE CHANGE IN 24 HOURS AS -2.7 HPA WITH CALM WINDS. NALIYA REPORTED MEAN SEA LEVEL PRESSURE OF 994.6 HPA & PRESSURE CHANGE IN 24 HOURS AS -2.2 HPA WITH WIND SPEED 6 KT.

**(II) ARABIAN SEA:**

**SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH THE MOVEMENT OF THE SYSTEM OVER SAURASHTRA & KUTCH AND ADJOINING PAKISTAN AND NORTHEAST ARABIAN SEA FROM INDIA DURING 27-30<sup>TH</sup> AUGUST:**

- SQUALLY WIND SPEED REACHING 55-65 KMPH GUSTING TO 75 KMPH IS LIKELY TO PREVAIL ALONG & OFF GUJARAT COASTS & ADJOINING PAKISTAN COASTS AND NORTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA DURING 27<sup>TH</sup>-30<sup>TH</sup> AUGUST.
- SQUALLY WEATHER WITH ROUGH TO VERY ROUGH SEA CONDITIONS IS VERY LIKELY TO PREVAIL ALONG & OFF GUJARAT & ADJOINING PAKISTAN AND NORTH MAHARASHTRA COASTS AND NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA TILL 30<sup>TH</sup> AUGUST.
- FISHERMEN ARE ADVISED NOT VENTURE INTO NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA AND ALONG & OFF GUJARAT & ADJOINING PAKISTAN AND NORTH MAHARASHTRA COASTS TILL 30<sup>TH</sup> AUGUST.

**CLOUDS ASSOCIATED WITH ARABIAN SEA:**

SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTHEAST ARABIAN SEA AND GULF OF KUTCH. SCATTERED LOW/MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER GULF OF CAMBAY, CENTRAL ARABIAN SEA AND ISOLATED WEAK TO MODERATE CONVECTION OVER NORTHWEST & SOUTH ARABIAN SEA LAKSHADWEEP ISLANDS & COMORIN AREA.

**\*PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS OVER ARABIAN SEA:**

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

**\*NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY (-) INDICATES GENESIS HAS ALREADY OCCURRED.**

**(III) LOW PRESSURE AREA OVER SOUTHEAST UTTAR PRADESH AND ADJOINING NORTHEAST MADHYA PRADESH**

THE LOW PRESSURE AREA OVER NORTHWEST JHARKHAND AND NEIGHBOURHOOD MOVED WEST-NORTHWESTWARDS AND LAY OVER SOUTHEAST UTTAR PRADESH AND ADJOINING NORTHEAST MADHYA PRADESH AT 1200 UTC OF TODAY, THE 27<sup>TH</sup> AUGUST 2024. IT IS LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTHEAST MADHYA PRADESH AND WEAKEN GRADUALLY DURING NEXT 24 HOURS.

ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EAST UTTAR PRADESH, EAST MADHYA PRADESH, NORTH CHHATTISGARH, JHARKHAND AND WEST BIHAR. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80-93 DEG CELSIUS.

**(IV) BAY OF BENGAL:**

A FRESH LOW PRESSURE AREA IS LIKELY TO FORM OVER EASTCENTRAL AND ADJOINING NORTH BAY OF BENGAL ON 29<sup>TH</sup> AUGUST. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS TOWARDS SOUTH ODISHA AND NORTH ANDHRA PRADESH COASTS DURING SUBSEQUENT TWO DAYS.

SCATTERED LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER CENTRAL & SOUTH BAY OF BENGAL AND SOUTH ANDAMAN SEA & TENASSERIM COAST. SCATTERED LOW/MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER NORTH BAY OF BENGAL, NORTH

ANDAMAN SEA, GULF OF MARTABAN & ARAKAN COAST.

**\*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) INDEX CURRENTLY LIES IN PHASE 4 WITH AMPLITUDE GREATER THAN 1. IT IS LIKELY TO MOVE ACROSS PHASE 4 AND 5 WITH AMPLITUDE REMAINING MORE THAN 1 DURING NEXT 5 DAYS. THE NCICS FORECASTS INDICATE SIGNIFICANT PRESENCE OF CONVECTIVELY COUPLED EQUATORIAL ROSSBY WAVES (ERW) PROPAGATING WESTWARDS STARTING FROM BAY OF BENGAL,CENTRAL INDIA AND CENTRAL ARABIAN SEA DURING NEXT 5 DAYS. THE WESTERLY WINDS (5-7 MPS) ARE LIKELY OVER THE SAME REGION AND STRONG EASTERLIES (5-7 MPS) OVER THE NORTHWESTERN PARTS OF INDIA AND NORTHEAST ARABIAN SEA DURING NEXT FIVE DAYS. THE EASTWARD-MOVING KELVIN WAVES (KW) ARE ALSO LIKELY OVER SOUTHEAST ARABIAN SEA. THESE FEATURES ARE FAVOURABLE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE ARABIAN SEA AND ALSO OVER THE BAY OF BENGAL.

VORTICITY AT 850 HPA LEVEL IS AROUND  $250 \times 10^{-5} \text{ S}^{-1}$  NEAR THE SYSTEM AREA EXTENDING UPTO 200 HPA. SHEAR TENDENCY IS INCREASING OVER SYSTEM AREA AND DECREASING TOWARDS SOUTH PAKISTAN. THE LOW LEVEL CONVERGENCE IS ABOUT  $5-10 \times 10^{-5} \text{ S}^{-1}$  AROUND SYSTEM AREA. UPPER LEVEL DIVERGENCE HAS IS ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$  AROUND SYSTEM AREA EXTENDING UPTO NORTHEAST ARABIAN SEA. THE WIND SHEAR IS MODERATE (15-25 KNOTS) OVER THE SYSTEM AREA.

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS (IMD GFS, NCEP GFS, GEFS, ECMWF, AND NCUM) INDICATE THAT THE EXISTING DEEP DEPRESSION OVER NORTH GUJARAT MOVE WEST-SOUTHWESTWARDS ACROSS NORTH GUJARAT. THERE IS A CONSENSUS AMONG VARIOUS MODELS THAT THE SYSTEM WOULD PERSIST OVER SAURASHTRA & KUTCH REGION DURING 28<sup>TH</sup> TO 30<sup>TH</sup> AUGUST. HOWEVER, THERE IS VARIATION AMONG MODELS WRT INTENSIFICATION OF SYSTEM WITH GFS & NCUM GROUP STILL SHOWING HIGHER INTENSIFICATION UPTO VERY SEVERE CYCLONIC STORM CATEGORY AND ECMWF & NCEP GFS ARE SHOWING PEAK INTENSIFICATION UPTO DEEP DEPRESSION STAGE ONLY. ECMWF AND NCEP GFS ARE ALSO INDICATING DRY AIR INCURSION INTO THE SYSTEM AREA FROM 28<sup>TH</sup>/ 1200 UTC ONWARDS. IMD MME IS INDICATING NEAR WESTWARDS MOVEMENT AND PEAK INTENSIFICATION UPTO MARGINAL CYCLONIC STORM/DEEP DEPRESSION.

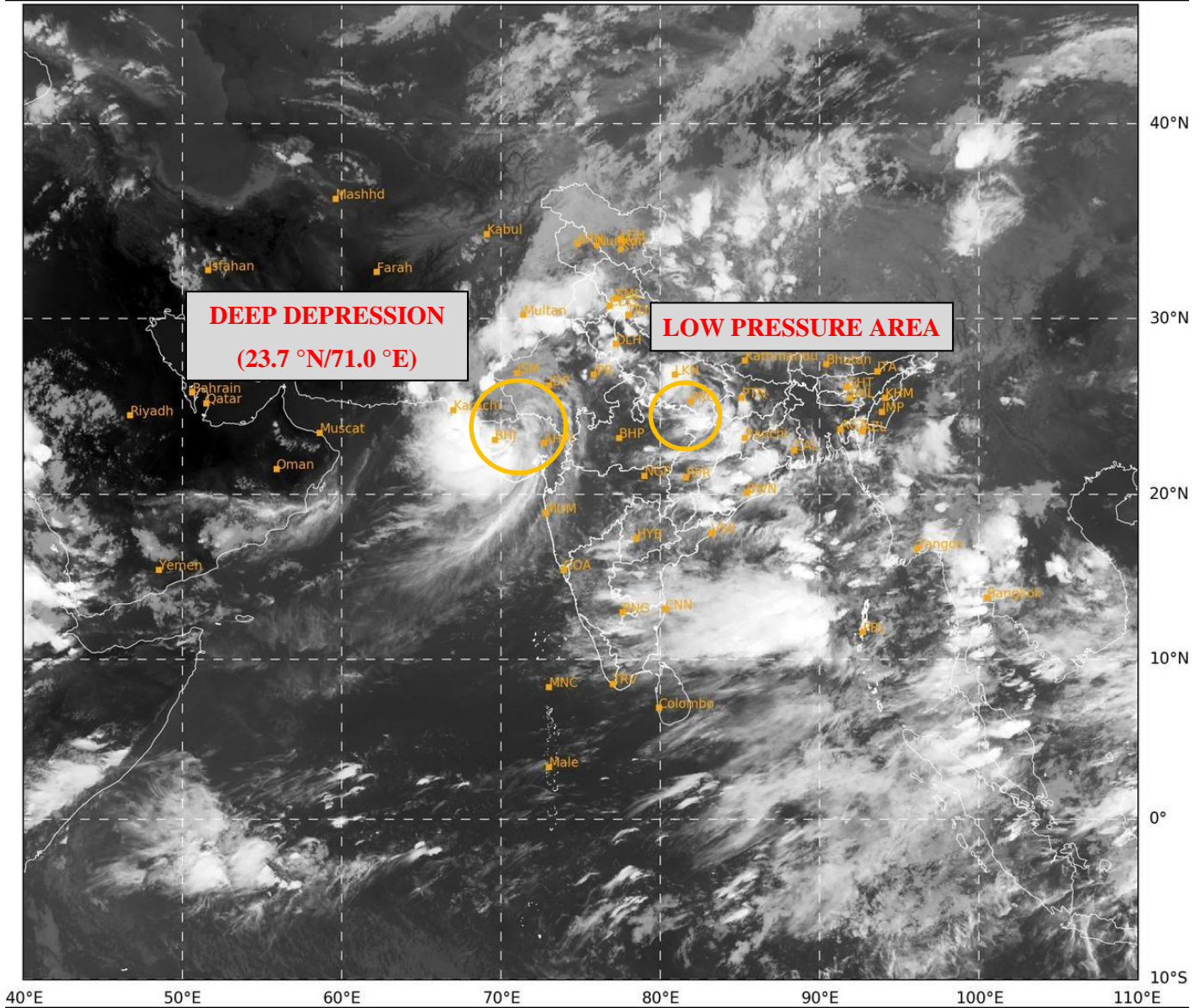
REGARDING LOW PRESSURE AREA OVER SOUTHEAST UTTAR PRADESH AND ADJOINING NORTHEAST MADHYA PRADESH, MOST OF THE MODELS ARE INDICATING WEAKENING DURING NEXT 24 HOURS.

OVER THE BAY OF BENGAL, MOST OF THE MODELS ARE INDICATING DEVELOPMENT OF LOW PRESSURE AREA OVER CENTRAL BAY OF BENGAL AROUND 29<sup>TH</sup> AUGUST WITH WEST-NORTHWESTWARDS MOVEMENT TOWARDS SOUTH ODISHA & ADJOINING NORTH ANDHRA PRADESH COASTS. HOWEVER, GFS AND NCUM ARE ALSO INDICATING INTENSIFICATION OF SYSTEM INTO A DEPRESSION AROUND 30<sup>TH</sup> AUGUST/1200 UTC. ECMWF AND NCUM ARE INDICATING DEVELOPMENT UPTO WELL MARKED LOW PRESSURE AREA STAGE ONLY.

CONSIDERING ALL THE ABOVE, IT IS INFERRED THAT:

- (1) DEEP DEPRESSION OVER SAURASHTRA & KACHCHH AND ADJOINING NORTH GUJARAT IS LIKELY TO MOVE SLOWLY WEST-SOUTHWESTWARDS ACROSS SAURASHTRA & KACHCHH REGION AND REACH SAURASHTRA & KACHCHH COAST & ADJOINING AREAS OF PAKISTAN AND NORTHEAST ARABIAN SEA BY MORNING OF 29TH AUGUST.
- (2) LOW PRESSURE AREA OVER SOUTHEAST UTTAR PRADESH AND ADJOINING NORTHEAST MADHYA PRADESH LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS NORTHEAST MADHYA PRADESH AND WEAKEN GRADUALLY DURING NEXT 24 HOURS.
- (3) A FRESH LOW PRESSURE AREA IS LIKELY TO FORM OVER EASTCENTRAL AND ADJOINING NORTH BAY OF BENGAL ON 29<sup>TH</sup> AUGUST. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS TOWARDS SOUTH ODISHA AND NORTH ANDHRA PRADESH COASTS DURING SUBSEQUENT TWO DAYS.

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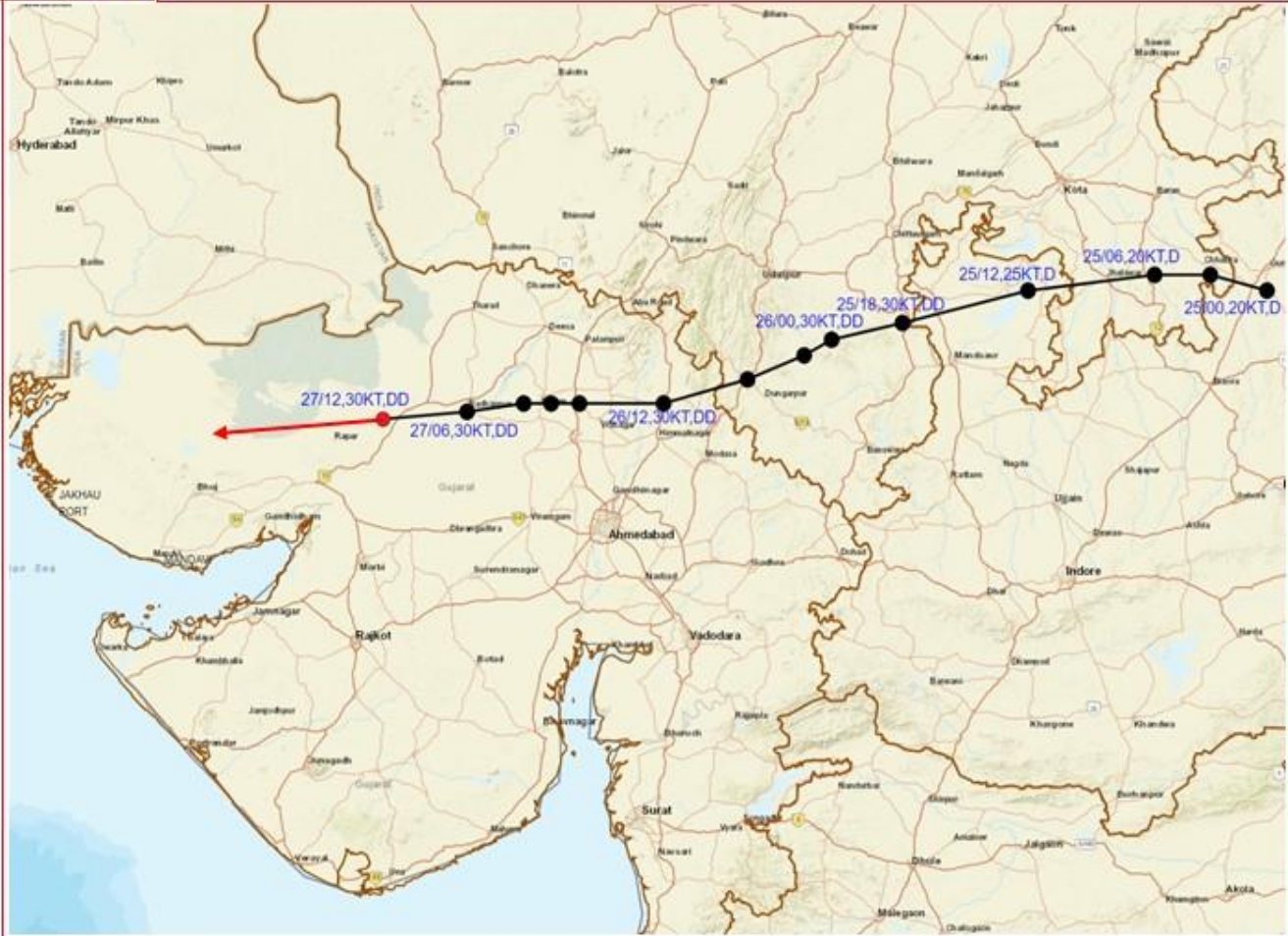
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IMD, DELHI

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



**OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER SAURASHTRA & KACHCHH AND ADJOINING NORTH GUJARAT BASED ON 1200 UTC (1730 IST) OF 27<sup>TH</sup> AUGUST, 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)

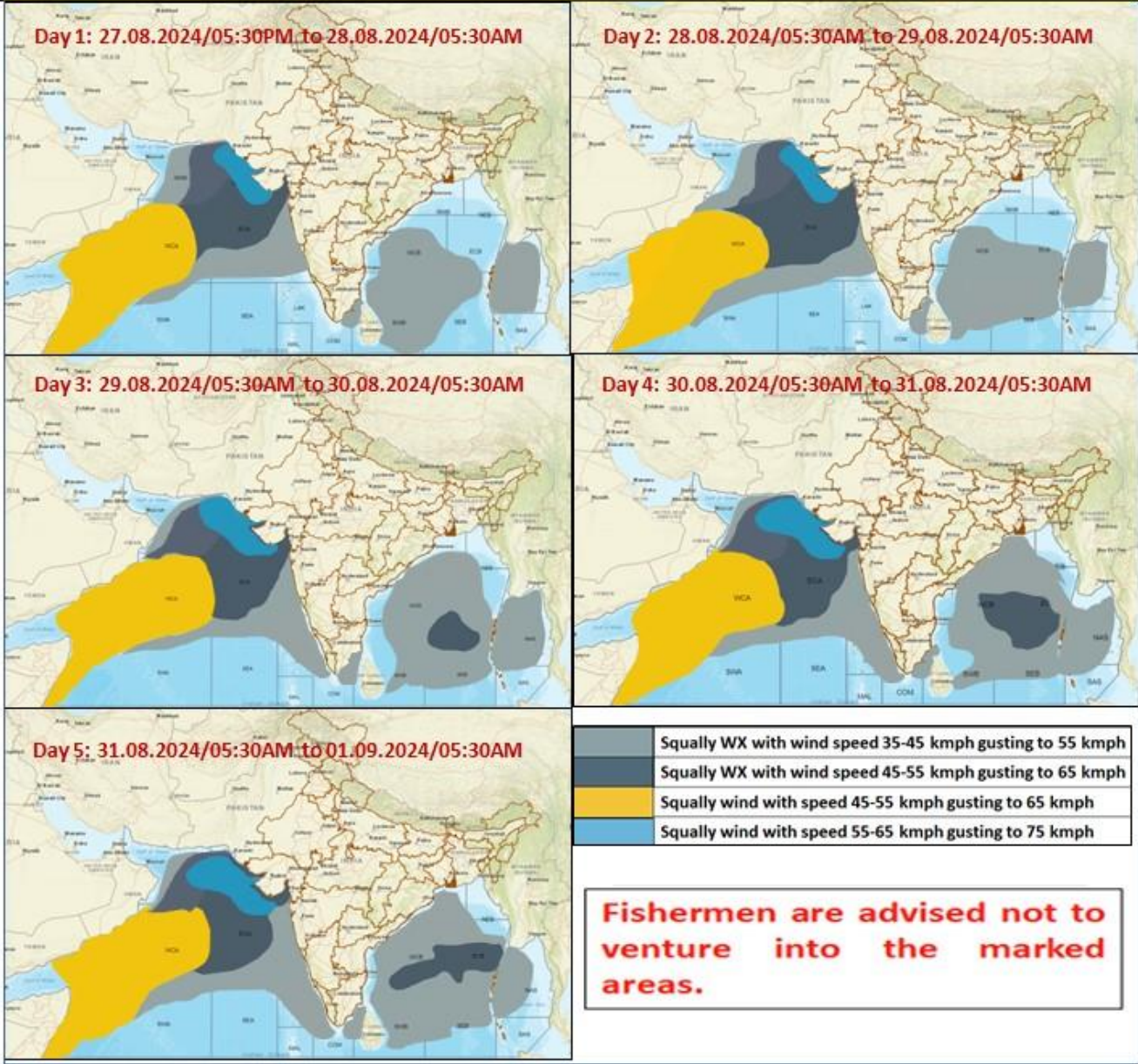
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)

ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SuCS: SUPER CYCLONIC STORM  $\geq$  120 KT)

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

**Fishermen Warning Graphics**



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