



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 25.08.2024

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0900 UTC OF 25.08.2024 BASED ON 0600 UTC OF 25.08.2024.

LAND DEPRESSION OVER CENTRAL INDIA:

SUB: DEPRESSION OVER EAST RAJASTHAN AND ADJOINING NORTHWEST MADHYA PRADESH

THE DEPRESSION OVER NORTHWEST MADHYA PRADESH AND ADJOINING EAST RAJASTHAN MOVED NEARLY WESTWARDS WITH A SPEED OF 13 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 0600 UTC OF TODAY, THE 25TH AUGUST OVER EAST RAJASTHAN AND ADJOINING NORTHWEST MADHYA PRADESH NEAR LATITUDE 24.6°N AND LONGITUDE 76.5°E, ABOUT 80 KM WEST-SOUTHWEST OF TO GUNA (42559) AND 90 KM SOUTHEAST OF KOTA (42452).

IT IS LIKELY TO MOVE NEARLY WEST-SOUTHWESTWARDS, INTENSIFY FURTHER INTO A DEEP DEPRESSION OVER EAST RAJASTHAN DURING NEXT 12 HOURS. THEREAFTER, IT WILL CONTINUE TO MOVE NEARLY WEST-SOUTHWESTWARDS ACROSS SOUTH RAJASTHAN AND GUJARAT SLOWLY AND EMERGE INTO NORTHEAST ARABIAN SEA OFF SAURASHTRA & KUTCH AND ADJOINING PAKISTAN COASTS AROUND 0000 UTC OF 29TH AUGUST.

IN ASSOCIATION WITH DEPRESSION OVER NORTHWEST MADHYA PRADESH & NEIGHBOURHOOD, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBDD INTENSE TO VERY INTENSE CONVECTION LAY OVER MADHYA PRADESH ADJOINING EAST RAJASTHAN, SOUTH & EAST GUJARAT (MINIMUM CLOUD TOP TEMPERATURE(CTT) MINUS 93⁰ C) AND MODERATE TO INTENSE CONVECTION LAY OVER MAHARASHTRA & CHHATTISGARH (MINIMUM CTT MINUS 50⁰-60⁰ C). LATEST IMAGERY INDICATES MOISTURE FEEDBACK INTO THE SYSTEM AREA FROM ARABIAN SEA.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 20 KTS GUSTING TO 30 KTS. ESTIMATED CENTRAL PRESSURE IS 994 HPA. AT 0600 UTC, GUNA REPORTED MEAN SEA LEVEL PRESSURE OF 997.0 HPA & PRESSURE CHANGE IN 24 HOURS AS -4.7 HPA AND KOTA REPORTED MEAN SEA LEVEL PRESSURE OF 996.3 HPA & PRESSURE CHANGE IN 24 HOURS AS -7.2 HPA.

ARABIAN SEA:

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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(I) SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH THE SYSTEM LIKELY TO EMERGE INTO NORTHEAST ARABIAN SEA FROM INDIA AROUND 29TH AUGUST:

- SQUALLY WEATHER WITH WIND SPEED REACHING 30-40 KMPH GUSTING TO 50 KMPH IS LIKELY OVER NORTHEAST ARABIAN SEA & ADJOINING EASTCENTRAL ARABIAN SEA AND ALONG & OFF GUJARAT & ADJOINING PAKISTAN & MAHARASHTRA COASTS TILL 27TH AUGUST. THE WIND SPEED WOULD GRADUALLY INCREASE THEREAFTER BECOMING 55-65 KMPH GUSTING TO 75 KMPH OVER THESE REGIONS ON 29TH & 30TH AUGUST. ROUGH TO VERY ROUGH SEA CONDITIONS IS VERY LIKELY TO PREVAIL ALONG & OFF PAKISTAN, GUJARAT & NORTH MAHARASHTRA COASTS AND NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA TILL 30TH AUGUST.
- FISHERMEN ARE ADVISED NOT VENTURE INTO NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA AND ALONG & OFF PAKISTAN, GUJARAT & NORTH MAHARASHTRA COASTS TILL 30TH AUGUST.

(II) CLOUDS ASSOCIATED WITH ARABIAN SEA:

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA, GULF OF KUTCH & GULF OF CAMBAY. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA AND WEAK TO MODERATE CONVECTION LAY OVER REST OF ARABIAN SEA.

***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	NIL	NIL	MOD	HIGH	HIGH	-

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

BAY OF BENGAL:

SUB: LOW PRESSURE AREA FORMED OVER SOUTH BANGLADESH & NEIGHBOURHOOD

UNDER THE INFLUENCE OF THE UPPER AIR CYCLONIC CIRCULATION OVER SOUTH BANGLADESH & NEIGHBOURHOOD, A LOW PRESSURE AREA FORMED OVER THE SAME REGION AT 0600 UTC OF TODAY, THE 25TH AUGUST 2024. IT IS LIKELY TO BECOME MORE MARKED AND MOVE WEST-NORTHWESTWARDS ACROSS GANGETIC WEST BENGAL, NORTH ODISHA AND JHARKHAND DURING NEXT 2 DAYS.

CLOUDS ASSOCIATED WITH CYCLONIC CIRCULATION LAY OVER NORTH BAY OF BENGAL ADJOINING COASTAL BANGLADESH & NEIGHBOURHOOD. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST BENGAL, BANGLADESH & NORTH BAY OF BENGAL (MINIMUM CTT MINUS 930C) AND MODERATE TO INTENSE CONVECTION LAY OVER REST OF GANGETIC WEST BENGAL & ODISHA.

SEA CONDITION AND ADVISORY FOR FISHERMEN:

- SQUALLY WEATHER WITH WIND SPEED REACHING 30-40 KMPH GUSTING 50 KMPH AND ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL OVER NORTH BAY OF BENGAL AND ALONG & OFF NORTH ODISHA, WEST BENGAL, BANGLADESH COASTS ON 25TH AND 26TH AUGUST.

- FISHERMEN ARE ADVISED NOT TO VENTURE INTO NORTH BAY OF BENGAL AND ALONG & OFF NORTH ODISHA, WEST BENGAL, BANGLADESH COASTS ON 25TH AND 26TH AUGUST.

***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

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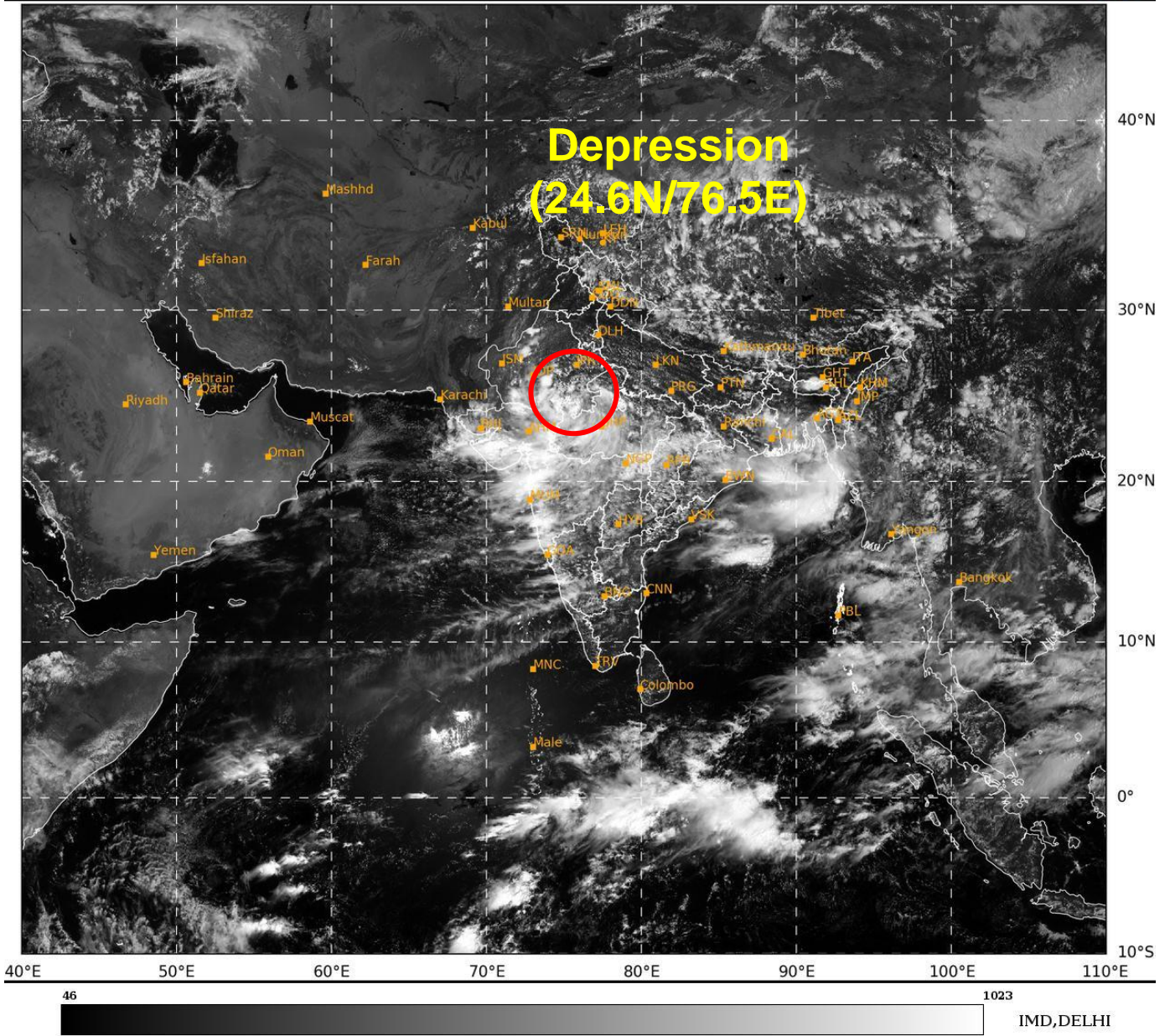
REMARKS:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 3 WITH AN AMPLITUDE GREATER THAN 1. IT IS LIKELY TO MOVE EASTWARDS ACROSS PHASE 3 AND 4 WITH AMPLITUDE REMAINING CLOSE TO 1 DURING THE FIRST WEEK. THEREFORE, THE MJO INDEX IS LIKELY TO ENHANCE THE CONVECTIVE ACTIVITY OVER EASTERN PARTS OF ARABIAN SEA (AS) DURING FIRST HALF THE WEEK 1 AND OVER THE BAY OF BENGAL (BOB) DURING THE WHOLE WEEK. THE NCICS FORECASTS INDICATE SIGNIFICANT PRESENCE OF CONVECTIVELY COUPLED EQUATORIAL ROSSBY WAVES (ERW) PROPAGATING WESTWARDS STARTING FROM SOUTH CHINA SEA AND BOB TO SOUTHEAST AND EASTCENTRAL AS DURING THE FIRST WEEK. THE WEAK WESTERLY WINDS (1-3 MPS) ARE LIKELY OVER SOUTHERN AND ADJOINING CENTRAL PARTS OF AS AND BOB DURING BOTH THE WEEKS. THE EASTWARD-MOVING KELVIN WAVES (KW) ARE LIKELY OVER NORTHERN PARTS OF AS AND SOUTH BOB DURING WEEK 1. THEREFORE, THE ZONAL WINDS AND EQUATORIAL WAVES ARE LIKELY TO SUPPORT CONVECTIVE ACTIVITIES ASSOCIATED WITH THE DEPRESSION OVER CENTRAL INDIA AND EXPECTED LOW PRESSURE AREA OVER BANGLADESH AND NEIGHBOURHOOD. THE EAST-NORTHEASTERLY WINDS IN THE MIDDLE LEVELS SUGGEST WEST-SOUTHWESTWARDS STEERING OF THE DEPRESSION OVER CENTRAL AND WEST INDIA. THE APPROACHING TROUGH IN WESTERLY IS LIKELY TO FAVOUR INTENSIFICATION OF SYSTEM AND SLOW DOWN THE WESTERLY MOVEMENT OF THE SYSTEM. THE LOW LEVEL CONVERGENCE HAS INCREASED IN PAST 24 HOURS AND IS AROUND $15 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ OVER THE SYSTEM AREA EXTENDING UPTO EASTCENTRAL ARABIAN SEA. VORTICITY AT 850 HPA LEVEL IS AROUND $50-100 \times 10^{-5} \text{ S}^{-1}$ NEAR SYSTEM AREA EXTENDING UP TO 200 HPA.

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS (IMD GFS, NCEP GFS, GEFS, ECMWF, AND NCUM) HAVE CONSENSUS AND INDICATE THAT THE EXISTING DEPRESSION OVER WOULD MOVE NEARLY WEST-SOUTHWESTWARDS, INTENSIFY INTO A DEEP DEPRESSION OVER SOUTH RAJASTHAN AND ADJOINING NORTH GUJARAT AROUND 27TH AUGUST. MODELS ARE ALSO INDICATING FURTHER INTENSIFICATION OF SYSTEM WITH GFS & NCUM SHOWING HIGHER INTENSIFICATION (UPTO SEVERE & ABOVE CATEGORY) AND ECMWF SHOWING MARGINAL CYCLONE. HOWEVER, THERE IS A CONSENSUS AMONG VARIOUS MODELS THAT THE SYSTEM WOULD PERSIST OVER SAURASHTRA & KUTCH REGION DURING 28TH TO 30TH AUGUST.

CONSIDERING ALL THE ABOVE, IT IS INFERRED THAT THE DEPRESSION OVER EAST RAJASTHAN & ADJOINING MADHYA PRADESH WOULD GRADUALLY INTENSIFY FURTHER AND EMERGE INTO NORTHEAST ARABIAN SEA OFF SAURASHTRA & KUTCH AND ADJOINING PAKISTAN COASTS AROUND 0000 UTC OF 29TH AUGUST.

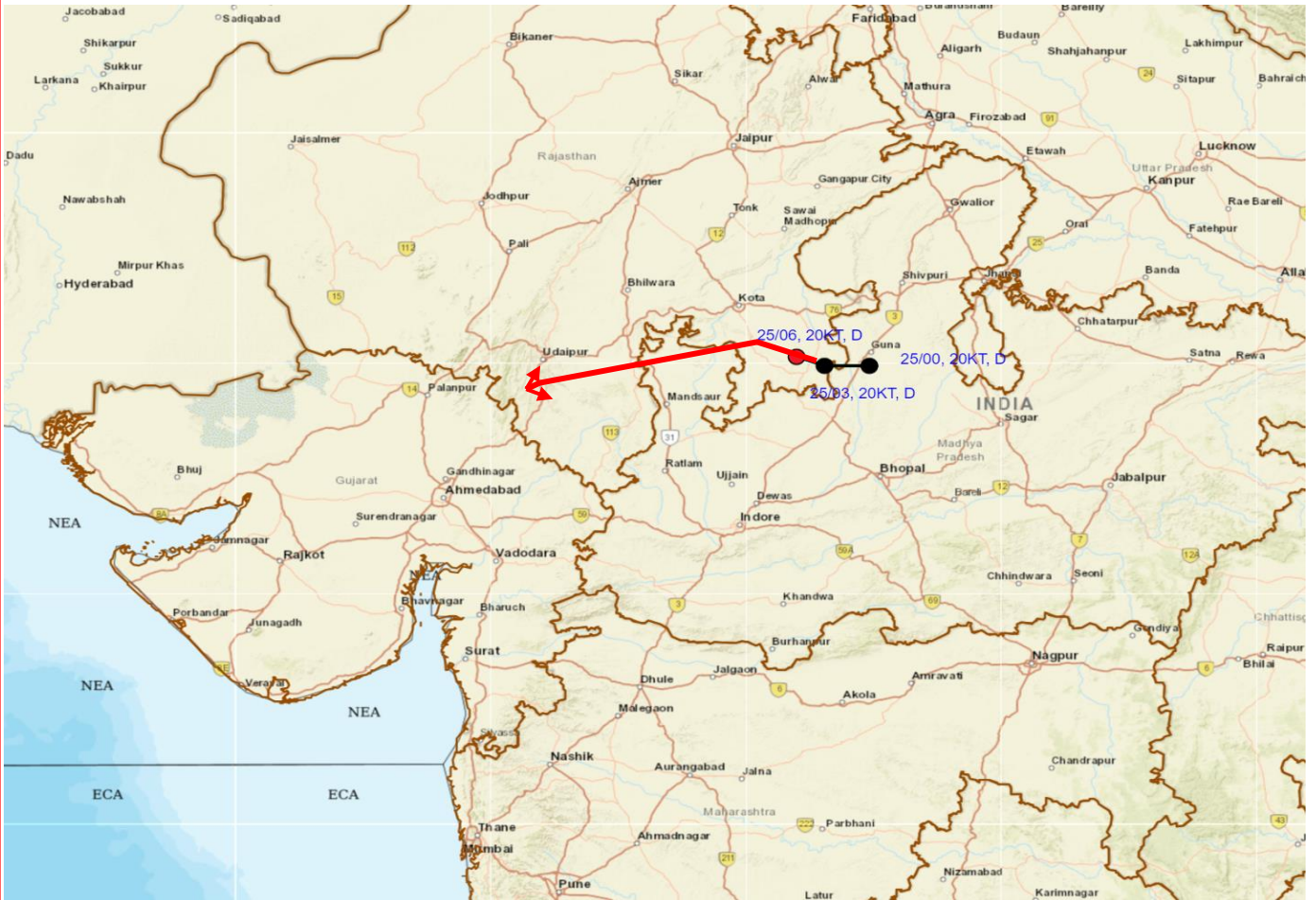
(MONICA SHARMA)
RSMC NEW DELHI



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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER EAST RAJASTHAN ADJOINING NORTHWEST MADHYA PRADESH BASED ON 0600 UTC (1130 IST) OF 25TH 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 (≥ 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Weather Warning Graphics

Fishermen Warning Graphics

