



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 19.07.2024

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1930 UTC OF 19.07.2024 BASED ON 1800 UTC OF 19.07.2024.

BAY OF BENGAL:

THE DEPRESSION OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL OFF ODISHA AND ADJOINING NORTH ANDHRA PRADESH COASTS MOVED NEARLY WEST-NORTHWESTWARDS WITH A SPEED OF 4 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1800 UTC OF TODAY, THE 19TH JULY, 2024 OVER THE SAME REGION NEAR LATITUDE 19.5°N AND LONGITUDE 85.5°E, ABOUT 40 KM SOUTH-SOUTHWEST OF PURI (ODISHA, 43053), 60 KM EAST-NORTHEAST OF GOPALPUR (ODISHA, 43049), 150 KM SOUTHWEST OF PARADIP (ODISHA, 42976) AND 190 KM NORTHEAST OF KALINGAPATNAM (ANDHRA PRADESH, 43105).

IT IS LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS AND CROSS ODISHA COAST TO THE SOUTH OF PURI NEAR CHILIKA LAKE AS A DEPRESSION AROUND 0000 UTC OF TOMORROW, THE 20TH JULY, 2024. CONTINUING TO MOVE FURTHER WEST-NORTHWESTWARDS ACROSS ODISHA & CHHATTISGARH IT WOULD WEAKEN GRADUALLY DURING SUBSEQUENT 24 HOURS.

AS PER INSAT-3D IMAGERY, INTENSITY OF THE SYSTEM IS T1.5/C.I.1.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL OFF NORTH COASTAL ANDHRA PRADESH AND SOUTH ODISHA. MINIMUM CLOUD TOP TEMPERATURE IS -93°C.

AS PER OBSERVATIONS AT 1800 UTC, ESTIMATED CENTRAL PRESSURE IS 990 HPA AND THE PRESSURE DROP AT CENTRE IS 4 HPA. AT 1800 UTC, LOWEST MEAN SEA LEVEL PRESSURE OF 995.7 HPA IS OBSERVED AT PURI (43053). AND PRESSURE CHANGE DURING PAST 24 HOURS AT PURI IS -3.6 HPA AND GOPALPUR IS -3.5 HPA. DEPARTURE OF PRESSURE AT 1200 UTC OF TODAY FROM NORMAL IS -8.6 HPA AT PURI, -8.5 HPA AT GOPALPUR AND -8.5 HPA AT KALINGAPATNAM. THESE OBSERVATIONS INDICATE THAT THE SYSTEM WOULD CROSS BETWEEN PURI AND GOPALPUR AND MOVE ACROSS ODISHA AND CHHATTISGARH.

WIND WARNING

SQUALLY WEATHER WITH WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS VERY LIKELY TO PREVAIL OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL AND ALONG AND OFF NORTH ANDHRA PRADESH, ODISHA, WEST BENGAL & ADJOINING BANGLADESH COASTS ON 19TH AND 20TH JULY AND WOULD DECREASE GRADUALLY THEREAFTER.

SEA CONDITION: ROUGH TO VERY ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL

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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OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL AND ALONG AND OFF NORTH ANDHRA PRADESH, ODISHA, WEST BENGAL & ADJOINING BANGLADESH COASTS ON 19TH AND 20TH JULY AND WOULD IMPROVE GRADUALLY THEREAFTER.

FISHERMEN WARNING

FISHERMEN ARE ADVISED NOT TO VENTURE INTO NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL AND ALONG & OFF NORTH ANDHRA PRADESH, ODISHA, WEST BENGAL & ADJOINING BANGLADESH COASTS ON 19TH AND 20TH JULY.

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EAST ARABIAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST OF ARABIAN SEA, LAKSHADWEEP ISLANDS AREA, MALDIVES 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:

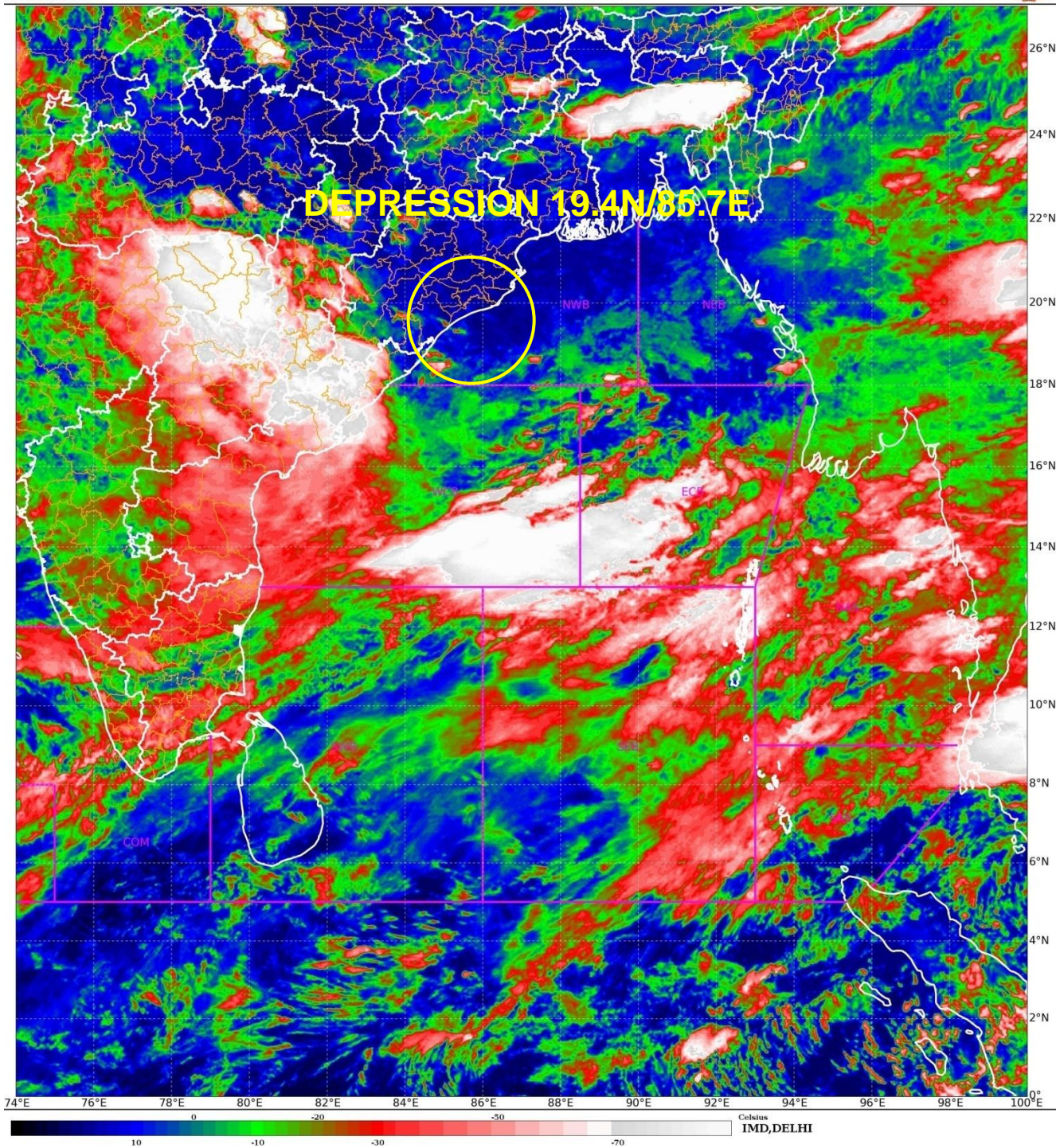
THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY LOCATED IN PHASE 5 WITH AMPLITUDE MORE THAN 1 AND IS LIKELY TO REMAIN IN SAME PHASE FOR NEXT 2 DAYS. THUS, MJO PHASE AND AMPLITUDE IS FAVOURABLE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE NORTH BAY OF BENGAL (BOB). THE NCICS BASED FORECASTS FOR ZONAL WINDS INDICATE STRONG EASTERLY WINDS (~ 3 TO 7 MPS) OVER NORTH BOB AND ADJOINING CENTRAL INDIA AND STRONG WESTERLY WINDS (~ 3 TO 7 MPS) OVER THE SOUTHERN AND ADJOINING EAST CENTRAL PART OF BOB DURING FIRST WEEK. ADDITIONALLY, THERE IS EQUATORIAL ROSSBY WAVE (ERW). THUS, ZONAL WINDS AND EQUATORIAL WAVES CONTRIBUTED TO FORMATION OF DEPRESSION OVER NORTH BAY OF BENGAL.

CONSIDERING THE ENVIRONMENTAL CONDITIONS, LOW LEVEL VORTICITY IS ABOUT $200 \times 10^{-5} \text{S}^{-1}$ AROUND THE SYSTEM CENTRE OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL WITH VERTICAL EXTENSION UPTO 200 HPA LEVELS. LOW LEVEL CONVERGENCE IS CIRCULAR AND IS ABOUT $20 \times 10^{-5} \text{S}^{-1}$ TO THE WEST OF THE SYSTEM CENTER. UPPER LEVEL DIVERGENCE HAS DECREASED, IS EAST-WEST ORIENTED AND IS ABOUT $10 \times 10^{-5} \text{S}^{-1}$ AROUND THE SYSTEM CENTER. VERTICAL WIND SHEAR (VWS) IS HIGH (>20 KT) AROUND THE SYSTEM CENTER.

VARIOUS NUMERICAL MODELS ARE INDICATING THE SYSTEM TO CROSS ODISHA COAST NEAR PURI AROUND 0000 UTC OF 20TH JULY. THEREAFTER, MODELS ARE INDICATING THE SYSTEM TO MOVE ACROSS ODISHA AND CHHATTISGARH AND WEAKEN GRADUALLY AROUND 1200 UTC OF 20TH JULY.

CONSIDERING ALL THE ABOVE, THE DEPRESSION OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL OFF ODISHA & ADJOINING NORTH ANDHRA PRADESH COASTS IS LIKELY TO MOVE NORTHWESTWARDS AND CROSS ODISHA COAST NEAR PURI AS A DEPRESSION AROUND 0000 UTC OF TOMORROW, THE 20TH JULY, 2024. THEREAFTER, IT WOULD MOVE WEST-NORTHWESTWARDS ACROSS ODISHA & CHHATTISGARH AND WEAKEN GRADUALLY DURING SUBSEQUENT 24 HOURS.

TRISANU BANIK
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RSMC, NEW DELHI



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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL OFF ODISHA AND ADJOINING NORTH ANDHRA PRADESH COASTS BASED ON 1800 UTC OF 19TH JULY, 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

Fishermen Warning Graphics

