



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 19.05.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 19.05.2021 BASED ON 0300 UTC OF 13.05.2021.

A. DEPRESSION OVER SOUTH RAJASTHAN AND ADJOINING GUJARAT REGION (REMNANT OF ESCS TAUKTAE)

YESTERDAY'S **DEEP DEPRESSION** OVER GUJARAT REGION MOVED NORTHEASTWARDS AND WEAKENED INTO A DEPRESSION OVER SOUTH RAJASTHAN AND ADJOINING GUJARAT REGION AT 0000 UTC OF TODAY, THE 19TH MAY, 2021. AT 0300 UTC OF TODAY, IT LAY AS A DEPRESSION OVER SOUTHEAST RAJASTHAN NEAR LATITUDE 24.9°N AND LONGITUDE 73.7°E OVER **SOUTHEAST RAJASTHAN AND NEIGHBOURHOOD**, ABOUT 30 KM SOUTH-SOUTHWEST OF UDAIPUR (42542) AND 170 KM EAST-NORTHEAST OF DEESA (42539). IT IS VERY LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS. THE REMNANT OF THE SYSTEM IS VERY LIKELY TO MOVE FURTHER NORTHEASTWARDS ACROSS RAJASTHAN TO UTTAR PRADESH DURING THE NEXT TWO DAYS.

AS PER SATELLITE IMAGERY BASED ON 0300 UTC OF 19TH MAY, BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION LAY OVER GUJARAT, RAJASTHAN, MADHYA PRADESH AND NEIGHBOURHOOD.

B. STATUS OVER NORTH INDIAN OCEAN BAY OF BENGAL:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL (BOB). SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION LAY OVER NORTH BOB AND SOUTH ANDAMAN SEA.

A **LOW PRESSURE AREA** IS VERY LIKELY TO FORM OVER NORTH ANDAMAN SEA AND ADJOINING EASTCENTRAL BOB AROUND 22ND MAY, 2021. IT IS VERY LIKELY TO INTENSIFY GRADUALLY INTO A **CYCLONIC STORM** DURING SUBSEQUENT 72 HOURS. IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND REACH ODISHA - WEST BENGAL COASTS AROUND 26TH MAY EVENING.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	NIL	NIL	LOW	MODERATE

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

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ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST PARTS OF EAST ARABIAN SEA AND GULF OF CAMBAY.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS :

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

REMARKS:

SOUTHWEST MONSOON IS LIKEY TO ADVANCE OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BAY OF BENGAL AROUND 21ST MAY. IN ASSOCIATION WITH THIS, THE SOUTHWESTERLY CROSS EQUATORIAL FLOW IS LIKELY TO STRENGTHEN AND DEEPEN DURING 21ST-24TH MAY AND HENCE THE CONVECTION IS LIKELY TO GET ENHANCED OVER THE ANDAMAN SEA AND ADJOINING EASTCENTRAL BOB FAVOURING CYCLOGENESIS.

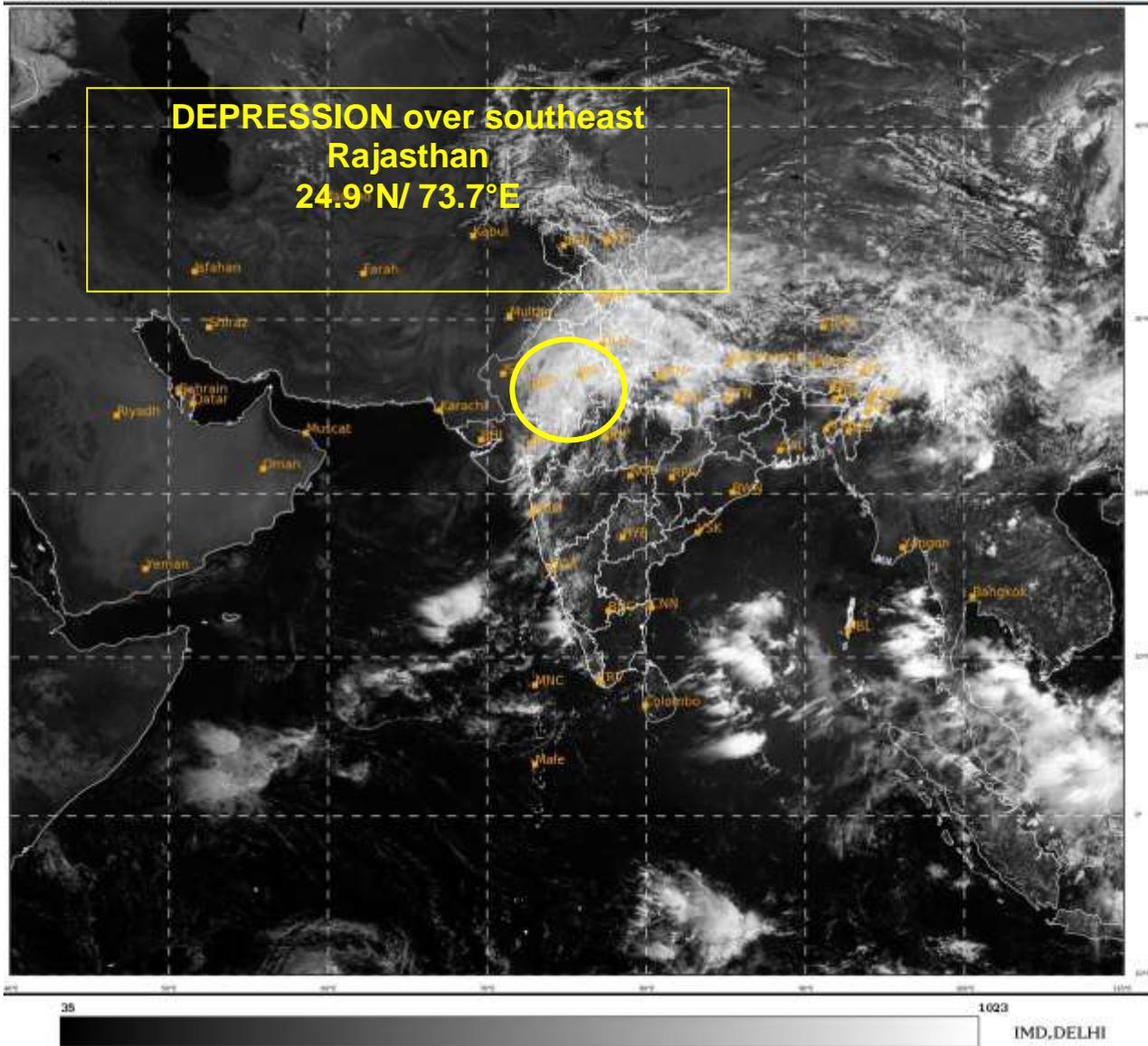
THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 4 WITH AMPLITUDE MORE THAN 1 AND WILL CONTINUE IN SAME PHASE DURING NEXT TWO DAYS. THEREAFTER IT WILL MOVE TO PHASE 5 AND CONTINUE IN SAME PHASE WITH AMPLITUDE REMAINING MORE THAN 1 FOR SUBSEQUENT 4 DAYS. THUS, MJO IS CONDUCIVE FOR ENHANCED CONVECTION OVER THE BAY OF BENGAL (BOB) DURING NEXT 7 DAYS. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 100 KJ/CM² OVER MAJOR PARTS OF BOB. IT IS SLIGHTLY DECREASING OVER EXTREME NORTH BOB AND ALONG & OFF ANDHRA, ODISHA, WEST BENGAL COASTS. SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31⁰C OVER MAJOR PARTS OF BOB.

EASTERLY WINDS ARE PREVAILING IN THE UPPER LEVEL. UPPER TROPOSPHERIC RIDGE RUNS ALONG 22.0⁰N. A ZONE OF POSITIVE VORTICITY 50-60 X10⁻⁶ S⁻¹ IS PREVAILING OVER SOUTH ANDAMAN SEA & ADJOINING SOUTHEAST BOB WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. TWO ZONES OF POSITIVE CONVERGENCE (5-10 X10⁻⁵ S⁻¹) PERSIST OVER SOUTHWEST AND SOUTHEAST BOB. AN ELONGATED ZONE OF POSITIVE UPPER LEVEL DIVERGENCE (5-10 X 10⁻⁵ S⁻¹) LAY OVER SOUTHEAST BOB UPTO EASTCENTRAL BOB. THE VERTICAL WIND SHEAR IS MODERATE (VWS) (15-20 KTS) OVER MAJOR PARTS OF CENTRAL & NORTH BOB TO THE NORTH OF 12⁰N.

MOST OF THE NUMERICAL MODELS INCLUDING IMD GFS, NCEP GFS, ECMWF, NCUM, ARE INDICATING FORMATION OF A LOW PRESSURE AREA OVER NORTH ANDAMAN SEA AND ADJOINING EASTCENTRAL BOB AROUND 22ND AND FORMATION OF DEPRESSION AROUND 23RD. MODELS ARE CONVERGENT ABOUT THE NORTHWESTWARDS MOVEMENT AND FURTHER INTENSIFICATION OF THE SYSTEM. HOWEVER, AT PRESENT THERE IS LARGE DIVERGENCE WRT CROSSING LOCATION OF THE SYSTEM.

IN VIEW OF FAVOURABLE ENVIRONMENTAL FEATURES AND AVAILABLE MODEL GUIDANCE, IT IS INFERRED THAT **A LOW PRESSURE AREA IS VERY LIKELY TO FORM OVER NORTH ANDAMAN SEA AND ADJOINING EASTCENTRAL BOB AROUND 22ND MAY, 2021. IT IS VERY LIKELY TO INTENSIFY GRDUALLY INTO A CYCLONIC STORM DURING SUBSEQUENT 72 HOURS. IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND REACH WEST BENGAL – ODISHA COASTS AROUND 26TH MAY EVENING.** CONTINUOUS WATCH IS BEING MAINTAINED OVER ANDAMAN SEA AND ADJOINING BOB REGION FOR PROBABLE CYCLOGENESIS (DEVELOPMENT OF DEPRESSION) AROUND 23RD MAY.

(SUNITHA DEVI S)
SCIENTIST-F

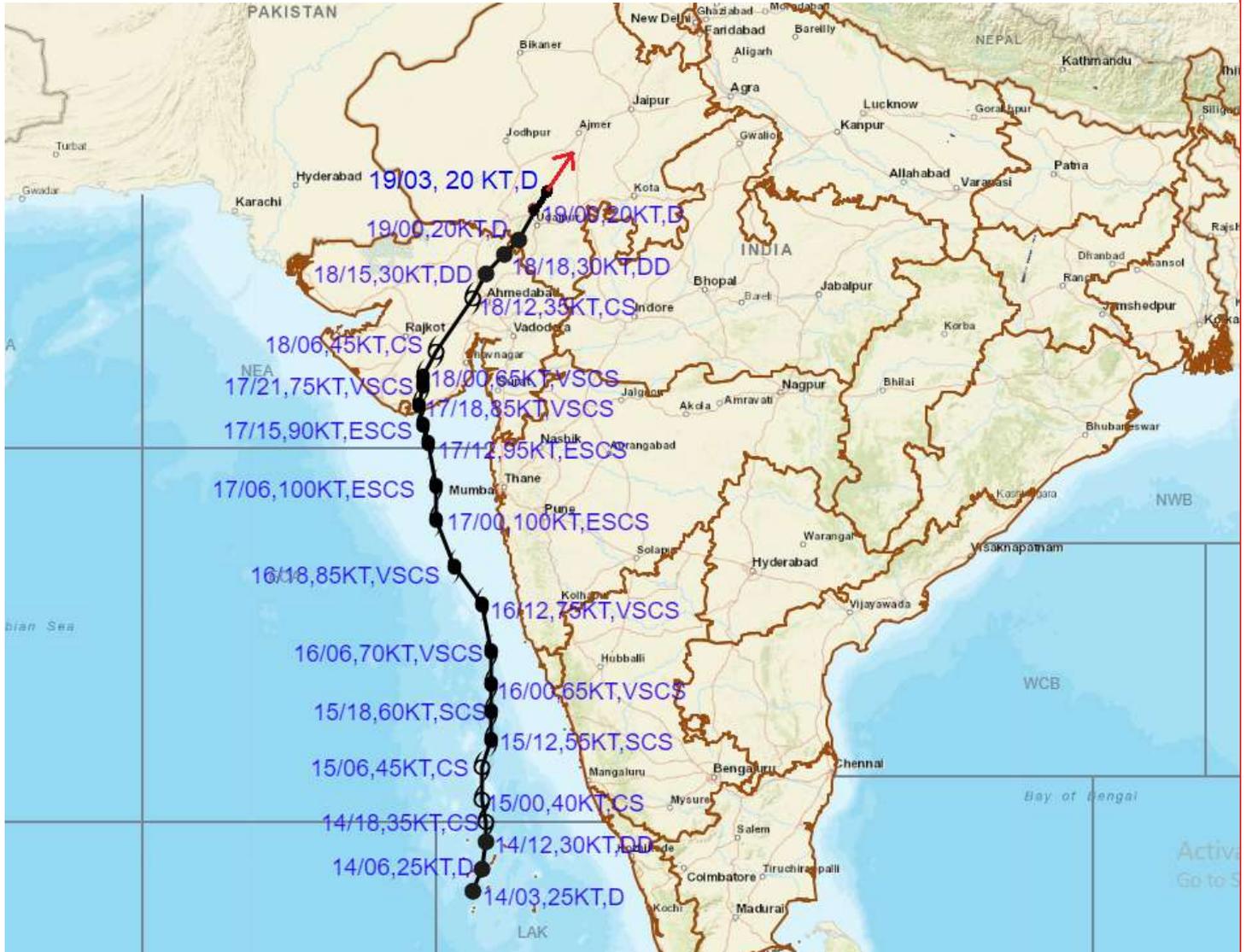


PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

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OBSERVED AND FORECAST TRACK OF DEPRESSION (REMNANT OF "TAUKTAE") OVER SOUTHEAST RAJASTHAN BASED ON 0300 UTC OF 19TH MAY, 2021



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

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