



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 13.05.2021

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

BAY OF BENGAL:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL (BOB).

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

ARABIAN SEA:

A LOW PRESSURE AREA HAS FORMED OVER SOUTHEAST ARABIAN SEA & ADJOINING LAKSHADWEEP AREA TODAY, THE 13TH MAY MORNING. IT IS VERY LIKELY TO BECOME WELL MARKED OVER LAKSHADWEEP AREA BY 14TH MORNING, CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION BY 15TH MORNING AND INTENSIFY INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS OVER SOUTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA. IT IS VERY LIKELY TO INTENSIFY FURTHER AND MOVE NORTH-NORTHWESTWARDS TOWARDS GUJARAT AND ADJOINING PAKISTAN COASTS. IT IS LIKELY TO REACH NEAR GUJARAT COAST AROUND 18TH MAY EVENING.

THE AREA OF CONVECTION HAS FURTHER EXPANDED INTO CENTRAL & SOUTH AS, ADJOINING EQUATORIAL INDIAN OCEAN, LAKSHADWEEP, MALDIVES AND COMORIN AREA WITH FURTHER ORGANISATION. THE CONVECTIVE CLOUDS ARE NOW SEEN AS LOW LEVEL CYCLONIC CIRCULATION (LLCC). ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS - 93⁰C. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL & SOUTH ARABIAN SEA (AS), ADJOINING EQUATORIAL INDIAN OCEAN, LAKSHADWEEP, MALDIVES AND COMORIN AREA.

THE ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 10-15 KNOTS GUSTING TO 25 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1004 HPA. SEA CONDITION IS MODERATE TO ROUGH.

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	MODERATE	HIGH	HIGH	HIGH

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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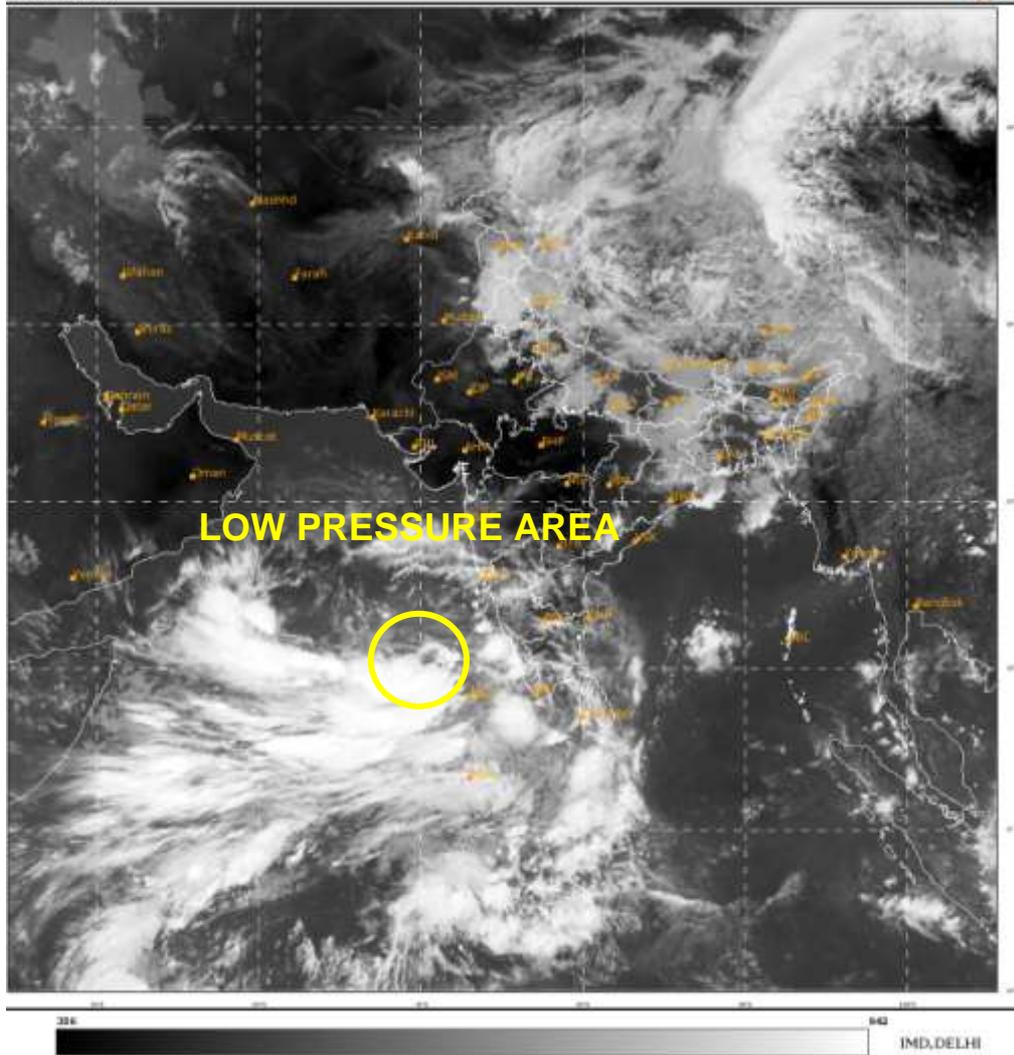
REMARKS:

THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 2 WITH AMPLITUDE LESS THAN 1 AND WILL CONTINUE IN SAME PHASE TOMORROW ALSO WITH AMPLITUDE GRADUALLY INCREASING. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE BECOMING MORE THAN 1 FROM 15TH TILL 18TH. THUS, MJO IS CONDUCIVE FOR ENHANCED CONVECTION OVER THE ARABIAN SEA (AS) DURING NEXT 5 DAYS. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 140 KJ/CM² OVER SOUTHEAST AS AND IS DECREASING OVER CENTRAL PARTS OF CENTRAL AS & NORTH AS. SEA SURFACE TEMPERATURE (SST) IS AROUND 30⁰C OVER ENTIRE AS & 30-31⁰C OVER SOUTHEAST AS. THE CROSS EQUATORIAL FLOW IN THE NEAR EQUATORIAL BELT IS LIKELY TO GET ENHANCED DURING NEXT 5 DAYS DUE TO WESTERLY WIND BURST.

THE LOW LEVEL CYCLONIC VORTICITY HAS ORGANISED AND IS AROUND $50 \times 10^{-6} \text{ S}^{-1}$ TO THE SOUTH-SOUTHWEST OF SYSTEM CENTRE OVER CENTRAL PARTS OF SOUTH AS. IT IS ELONGATED ALONG SOUTHWEST-NORTHEAST DIRECTION. LOW LEVEL CONVERGENCE HAS INCREASED & ORGANISED DURING PAST 24 HOURS ($30 \times 10^{-5} \text{ S}^{-1}$) TO THE SOUTH-SOUTHWEST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE ($30 \times 10^{-5} \text{ S}^{-1}$) IS SEEN TO THE SOUTH-SOUTHWEST OF SYSTEM CENTRE. BOTH THE CONVERGENCE AND DIVERGENCE ZONE ARE OVER THE SAME REGION. UPPER TROPOSPHERIC RIDGE RUNS ALONG 12.5⁰N. CURRENTLY, THE INVEST AREA IS IN A REGION OF LOW VERTICAL WIND SHEAR (VWS) (10-15 KTS). VWS IS IS FURTHER DECREASING (5-10 KTS) OVER SOUTHEAST & EASTCENTRAL AS AND LAKSHADWEEP-MALDIVES AREA.

MOST OF THE NUMERICAL MODELS ARE INDICATING FORMATION OF DEPRESSION OVER SOUTHEAST ARABIAN SEA & ADJOINING AREAS AROUND 14TH-15TH MAY, AND IT'S INTENSIFICATION FURTHER INTO A CYCLONIC STORM BY 16TH MAY OVER EASTCENTRAL ARABIAN SEA. MODELS ARE ALSO INDICATING NORTH-NORTHWESTWARDS TOWARDS GUJARAT AND ADJOINING PAKISTAN COASTS.

THUS UNDER FAVOURABLE ENVIRONMENT LIKE MJO, HIGH SST, HIGH TCHP, GOOD POLEWARD OUTFLOW, MODERATE VWS AND WESTERLY WIND BURST, A LOW PRESSURE AREA HAS FORMED OVER SOUTHEAST ARABIAN SEA & ADJOINING LAKSHADWEEP AREA TODAY, THE 13TH MAY MORNING. IT IS VERY LIKELY TO CONCENTRATE INTO A DEPRESSION BY 15TH MORNING AND INTENSIFY INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS OVER EASTCENTRAL & ADJOINING SOUTHEAST ARABIAN SEA. IT IS VERY LIKELY TO INTENSIFY FURTHER AND MOVE NORTH-NORTHWESTWARDS TOWARDS GUJARAT AND ADJOINING PAKISTAN COASTS. IT IS LIKELY TO REACH NEAR GUJARAT COAST AROUND 18TH MAY EVENING.



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