



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 20.12.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 20.12.2021 BASED ON 0300 UTC OF 20.12.2021.

BAY OF BENGAL:

YESTERDAY'S LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL (BOB) & ADJOINING EQUATORIAL INDIAN OCEAN (EIO) LAY AS A WELL MARKED LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA OFF NORTH SUMATRA COAST AT 0000 UTC OF TODAY, THE 20TH DECEMBER, 2021. THE ASSOCIATED CYCLONIC CIRCULATION EXTENDED UPTO 5.8 KM ABOVE MEAN SEA LEVEL. IT PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 20TH DECEMBER. IT IS LIKELY TO MOVE EAST-NORTHEASTWARDS FURTHER.

AS PER SATELLITE IMAGERY AT 0300 UTC OF TODAY, THE WELL MARKED LOW PRESSURE AREA IS CENTERED NEAR 5.0N/95.5E. INTENSITY OF THE SYSTEM IS T1.0. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTH ANDAMAN SEA AND ADJOINING EIO OFF NORTH SUMATRA COAST & NEIGHBOURHOOD. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 84⁰C.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BOB AND ADJOINING EIO OFF NORTH SUMATRA COAST & NEIGHBOURHOOD.

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

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

ARABIAN SEA:

NO SIGNIFICANT CLOUDS OVER THE REGION.

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:

A FEW NUMERICAL MODELS ARE INDICATING A LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA & ADJOINING (EIO) WITH EAST-NORTHEASTWARDS MOVEMENT. HOWEVER, ECMWF IS INDICATING FORMATION OF DEPRESSION OVER EIO AND ADJOINING SOUTHEAST BOB ON 20TH WITH MARGINAL INTENSIFICATION ON 21ST AND WEAKENING THEREAFTER AND EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA. IMD GPP IS INDICATING A POTENTIAL ZONE FOR CYCLOGENESIS OVER THE SOUTH ANDAMAN SEA ON 20TH DECEMBER.

CURRENT SEA CONDITIONS INCLUDING SEA SURFACE TEMPERATURE (>28⁰C), TROPICAL CYCLONE HEAT POTENTIAL (>100 KJ/CM²), DEPTH OF 26⁰C ISOTHERM (100-120 M) ARE INDICATING FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS OVER SOUTH BOB AND ADJOINING EIO .

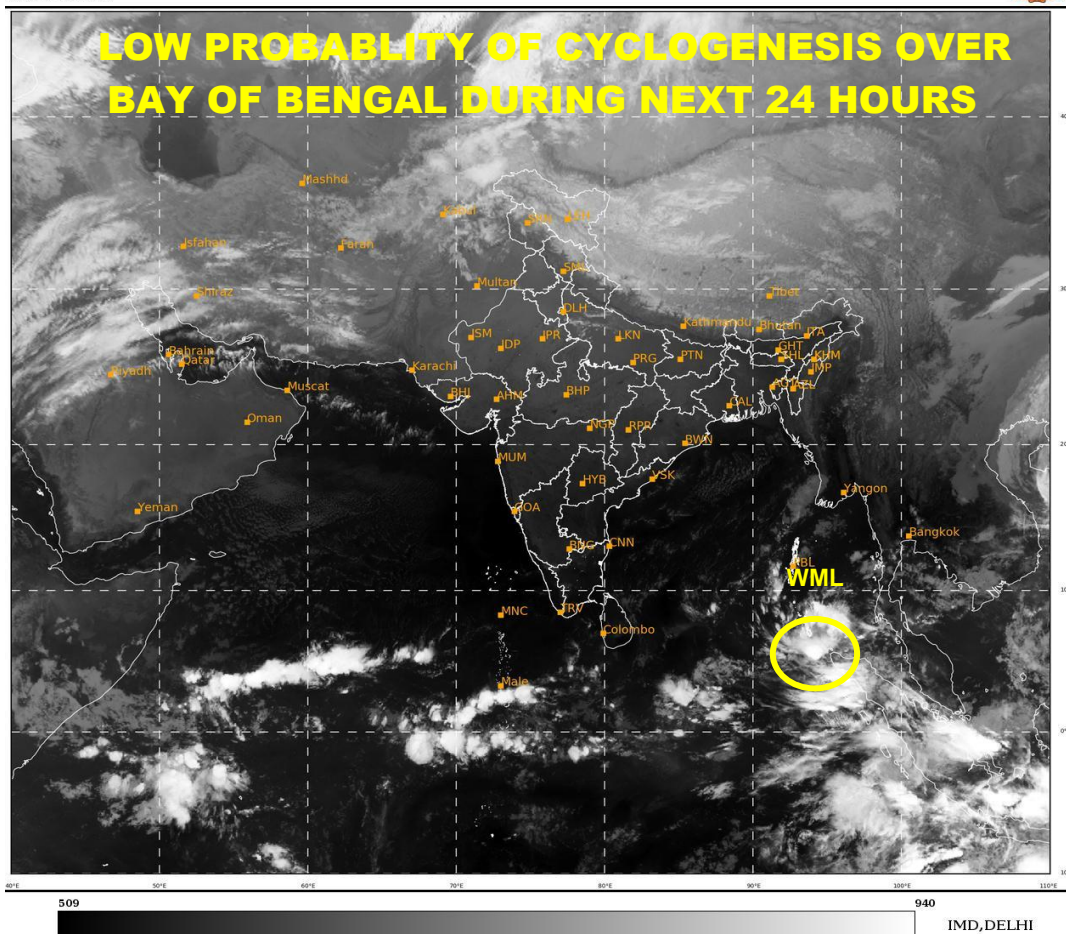
ENVIRONMENTAL CONDITIONS BASED ON 0000 UTC OF TODAY, THE 20TH DECEMBER, 2021 INDICATE FURTHER STRENGTHENING OF ENVIRONMENTAL FEATURES OVER SOUTH ANDAMAN SEA AND ADJOINING EIO. POITIVE LOW LEVEL VORTICITY IS 100x10⁻⁶S⁻¹ (NO CHANGE DURING PAST 24 HOURS), POSITIVE LOW LEVEL CONVERGENCE IS 30x10⁻⁵S⁻¹ TO THE SOUTHEAST OF SYSTEM CENTRE (INCREASED IN PAST 24 HOURS), POSITIVE UPPER LEVEL DIVERGENCE IS 30x10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE (INCREASED IN PAST 24 HOURS), LOW TO MODERATE WIND SHEAR (15-20 KTS) OVER SYSTEM AREA AND EASTWARDS .

LARGE SCALE FEATURES ARE STILL CONDUCTIVE OVER THE REGION WITH PRESENCE OF EQUATORIAL ROSSBY WAVES, INCREASED CROSS EQUATORIAL WESTERLY FLOW, ENHANCED EASTERLY FLOW OVER CENTRAL ANDAMAN SEA AND ACTIVE ITCZ.

IN VIEW OF ABOVE FAVOURABLE SEA CONDITIONS AND MODEL GUIDANCE, LOW PROBABILITY IS ASSIGNED TO FORMATION OF DEPRESSION OVER SOUTH ANDAMAN SEA ON DAY 1 & 2 (DURING 20TH -22ND DECEMBER).

SAT : INSAT-3D IMG
 IMG_TIR1 10.8 um
 LIC Mercator

20-12-2021/(0300 to 0327) GMT
 20-12-2021/(0830 to 0857) IST



- WML STANDS FOR WELL MARKED LOW PRESSURE AREA

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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