



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 21.12.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 21.12.2021 BASED ON 0300 UTC OF 21.12.2021.

BAY OF BENGAL:

YESTERDAY'S WELL MARKED LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA OFF NORTH SUMATRA COAST MOVED EAST-NORTHEASTWARDS AND LAY OVER SOUTH ANDAMAN SEA AND ADJOINING MALACCA STRAIT AT 0300 UTC OF TODAY, THE 21ST DECEMBER, 2021. THE ASSOCIATED CYCLONIC CIRCULATION EXTENDED UPTO 5.8 KM ABOVE MEAN SEA LEVEL. IT IS LIKELY TO MOVE EASTNORTHEASTWARDS FURTHER.

AS PER SATELLITE IMAGERY AT 0300 UTC OF TODAY, THE WELL MARKED LOW PRESSURE AREA IS CENTERED WITHIN HALF A DEGREE OF 6.0N / 97.0E. 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, NORTH SUMATRA NORTH PARTS OF STRAIT OF MALACCA AND CENTRAL PARTS OF MALAY PENINSULA & NEIGHBOURHOOD. MINIMUM CLOUD TOP TEMPERATURE MINUS 93 DEG C.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTH ANDAMAN SEA NORTH SUMATRA NORTH PARTS OF STRAIT OF MALACCA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION OVER SOUTH EAST BAY OF BENGAL.

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:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER SOUTH ARABIAN SEA SOUTH OF LAT 8.5N.

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:

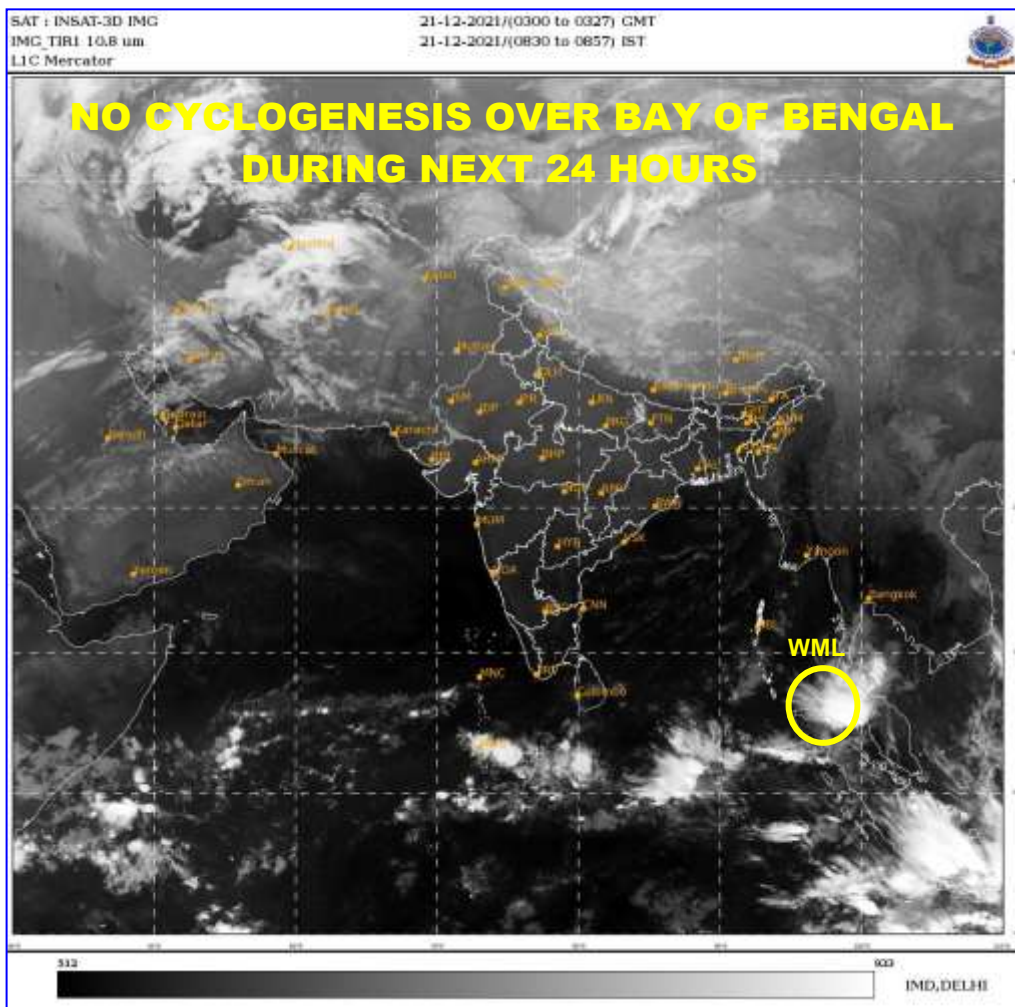
A FEW NUMERICAL MODELS (IMD GFS AND ECMWF) ARE INDICATING A FEEBLE LOW PRESSURE AREA OVER SOUTH ANDAMAN SEA & ADJOINING (EIO) WITH EAST-NORTHEASTWARDS MOVEMENT BECOMING LESS MARKED DURING NEXT 24 HOURS. IMD GPP IS INDICATING A POTENTIAL ZONE FOR CYCLOGENESIS OVER THE SOUTH ANDAMAN SEA ON 21ST DECEMBER.

CURRENT SEA CONDITIONS INCLUDING SEA SURFACE TEMPERATURE (>28°C), TROPICAL CYCLONE HEAT POTENTIAL (>100 KJ/CM²), DEPTH OF 26°C 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 21st DECEMBER, 2021 INDICATE WEAKENING OF LOW LEVEL VORTICITY OVER SOUTH ANDAMAN SEA. POITIVE LOW LEVEL VORTICITY IS $50 \times 10^{-6} \text{S}^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE (DECREASED DURING PAST 24 HRS), POSITIVE LOW LEVEL CONVERGENCE IS $30 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE (NO CHANGE IN PAST 24 HRS), POSITIVE UPPER LEVEL DIVERGENCE IS $30 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHTHEAST OF SYSTEM CENTRE (NO CHANGE IN MAGNITUDE, ONLY LOCATION HAS CHANGED IN PAST 24 HOURS), LOW TO MODERATE WIND SHEAR (15-20 KTS) OVER SYSTEM AREA AND EASTWARDS.

LARGE SCALE FEATURES INDICATE PRESENCE OF EQUATORIAL ROSSBY WAVES, ENHANCED CROSS EQUATORIAL WESTERLY FLOW AND ACTIVE ITCZ. HOWEVER, WEAKENING OF EASTERLY FLOW OVER CENTRAL ANDAMAN SEA IS SEEN LEADING TO DECREASE IN CYCLONIC VORTICITY OVER SOUTH ANDAMAN SEA.

IN VIEW OF ABOVE CONDITIONS AND MODEL GUIDANCE, NO CYCLOGENESIS (FORMATION OF DEPRESSION) IS EXPECTED OVER SOUTH ANDAMAN SEA AND EQUARTORIAL INDIAN OCEAN DURING NEXT 5 DAYS.



- **WML STANDS FOR WELL MARKED LOW PRESSURE AREA**