REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL WEATHER OUTLOOK

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 21.12.2022

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 21.12.2022 BASED ON 0300 UTC OF 21.12.2022.

BAY OF BENGAL:

YESTERDAY'S LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN LAY AS A WELL MARKED LOW PRESSURE AREA OVER SOUTHWEST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN AT 0000 UTC AND PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 21ST DECEMBER. IT IS LIKELY TO MOVE NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BAY OF BENGAL OFF SRI LANKA COAST DURING NEXT 48 HOURS. THEREAFTER, IT IS LIKELY TO MOVE WEST-SOUTHWESTWARDS TOWARDS COMORIN AREA ACROSS SRI LANKA.

AS PER SATELLITE IMAGERY CLOUDS ASSOCIATED WITH WELL MARKED LOW PRESSURE AREA ARE BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTHWEST BAY OF BENGAL ADJOINING EQUATORIAL INDIAN OCEAN & NEIGHBOURHOOD. MINIMUM CTT MINUS 93 DEG CEL.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTH BAY OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER CENTRAL BAY OF BENGAL AND SOUTH ANDAMAN SEA.

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	LOW	MOD	MOD	NIL

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTH-EAST ARABIAN SEA & COMORIN AREA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED WEAK CONVECTION OVER NORTHWEST AND EASTCENTRAL ARABIAN SEA OFF GOA-KARNATAKA COASTS & LAKSHADWEEP AREA.

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	MOD

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

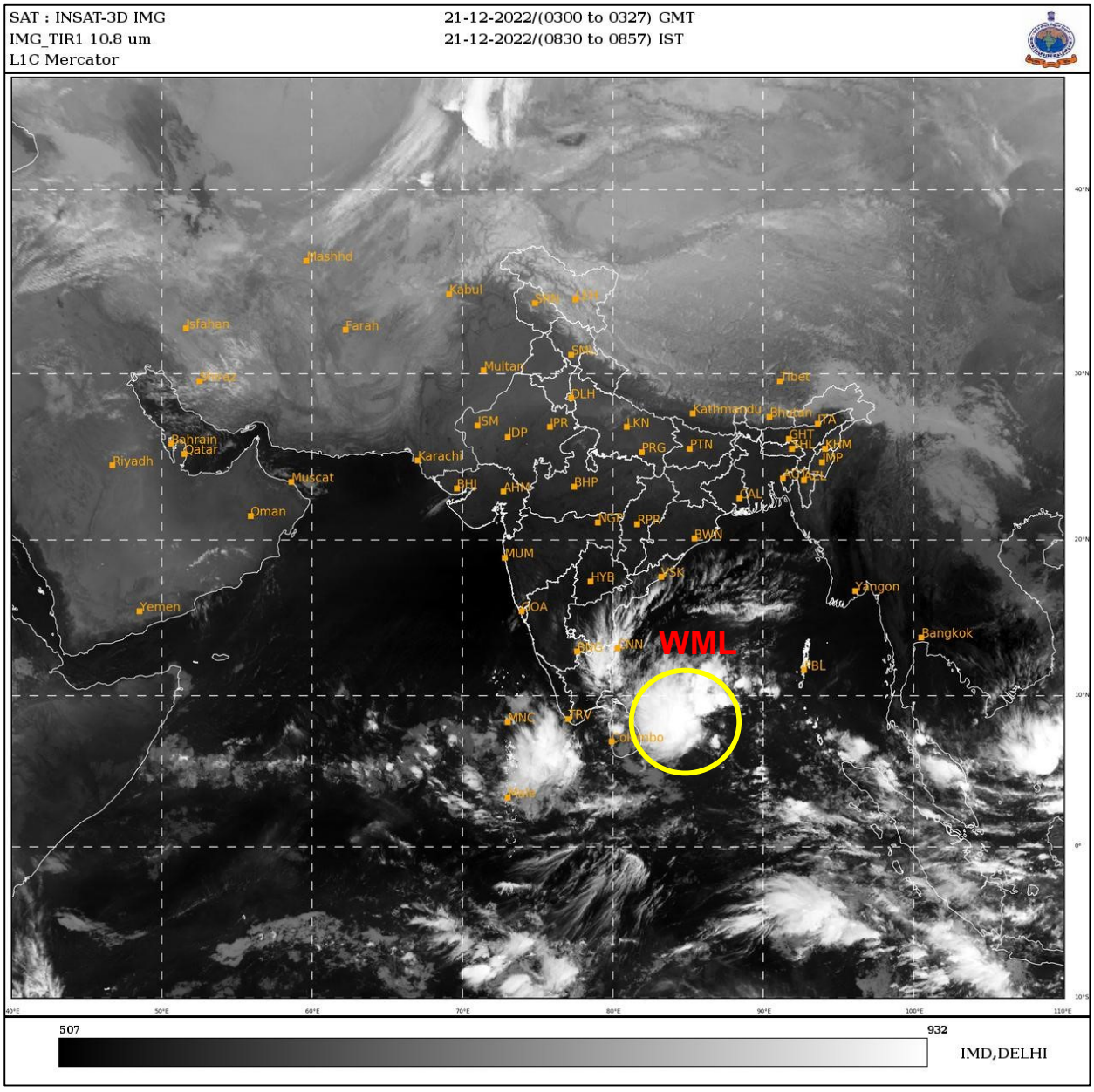
Remarks:

SEA SURFACE TEMPERATURE IS ABOUT 28-29°C OVER SOUTH BOB AND ADJOINING EQUATORIAL INDIAN OCEAN. MADDEN JULIAN OSCILLATION INDEX IS IN PHASE 5 WITH AMPLITUDE MORE THAN 1. THE EQUATORIAL WAVES PREDICTION INDICATES STRONG EASTERLY WINDS (5-7 MPS) OVER SOUTH & ADJOINING CENTRAL BAY OF BENGAL, STRONG WESTERLY WINDS (5-7 MPS) OVER SOUTH & ADJOINING EAST EQUATORIAL INDIAN OCEAN, LOW FREQUENCY BACKGROUND WAVES OVER SOUTH BAY OF BENGAL ARE LIKELY TO PREVAIL DURING NEXT 3-4 DAYS, THUS FAVOURING ENHANCEMENT OF CONVECTIVE ACTIVITY OVER SOUTH BAY OF BENGAL. LOW LEVEL RELATIVE VORTICITY IS AROUND $50X10^{-6}$ S^{-1} TO THE NORTHEAST OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT $20X10^{-5}$ S^{-1} TO THE NORTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS ABOUT $30X10^{-5}$ S^{-1} TO THE NORTHWEST OF SYSTEM CENTRE. LOW TO MODERATE (10-15 KNOTS) VERTICAL WIND SHEAR IS PREVAILING AROUND SYSTEM AREA OVER SOUTHWEST BOB. CURRENT CONDITIONS INDICATE THAT THE SYSTEM IS IN A FAVORABLE ENVIRONMENT. HOWEVER, DUE TO INCREASE IN VERTICAL WIND SHEAR BEYOND 12°N/82°E, FURTHER INTENSIFICATION INTO A CYCLONIC STORM IS NOT LIKELY.

MOST OF THE MODELS (GFS & NCUM GROUP) ARE INDICATING EXISTING WELL MARKED LOW PRESSURE AREA OVER SOUTHWEST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION BY 23^{RD} /0000 UTC OVER SOUTHWEST BAY OF BENGAL OFF SRILANKA COAST. THEREAFTER, IT WOULD RECURVE SOUTHWESTWARDS AND REACH COMORIN AREA BY 25^{TH}/0000 UTC.

IN VIEW OF ALL THE ABOVE, THE WELL MARKED LOW PRESSURE AREA OVER SOUTHWEST BAY OF BENGAL IS LIKELY TO MOVE NORTHWESTWEARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BAY OF BENGAL OFF SRI LANKA COAST DURING NEXT 24 HOURS. THEREAFTER, IT IS LIKELY TO MOVE SOUTHWESTWARDS TOWARDS COMORN AREA ACROSS SRI LANKA.

M. SHARMA
SCIENTIST-D
RSMC, NEW DELHI



WML- WELL MARKED LOW PRESSURE AREA

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins