



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 29.11.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 29.11.2021 BASED ON 0300 UTC OF 29.11.2021.

BAY OF BENGAL:

A LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTH ANDAMAN SEA BY TOMORROW THE 30TH NOVEMBER, 2021. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST & ADJOINING EAST-CENTRAL BAY OF BENGAL DURING SUBSEQUENT 48 HOURS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL OFF SOUTH ANDHRA PRADESH COAST SOUTHWEST BAY OF BENGAL OFF TAMILNADU NORTH COAST & NEIGHBOURHOOD SOUTHEAST BAY OF BENGAL AND SOUTH ANDAMAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER NORTH BAY OF BENGAL NORTH ANDAMAN SEA AND ISOLATED WEAK TO MODERATE CONVECTION LAY OVER REST OF CENTRAL 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	LOW	MODERATE	HIGH

ARABIAN SEA:

A LOW PRESSURE AREA IS LIKELY TO FORM OVER EAST-CENTRAL ARABIAN SEA OFF MAHARASHTRA COAST AROUND 1ST DECEMBER 2021.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH PARTS OF EASTCENTRAL ARABIAN SEA SOUTH ARABIAN SEA AND COMORIN.

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

THE SEA SURFACE TEMPERATURE IS 29-31°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 100-120 KJ/CM² OVER GULF OF THAILAND, SOUTH ANDAMAN SEA & ADJOINING EASTERN EQUATORIAL INDIAN OCEAN AND SOUTHEAST BAY OF BENGAL (BOB). IT IS 80-100 OVER MAJOR PARTS OF CENTRAL & NORTH BOB. DEPTH OF 26°C ISOTHERM IS 100-120 M OVER THE GULF OF THAILAND, ANDAMAN SEA AND ADJOINING

EASTCENTRAL BOB. THE MADDEN JULIAN OSCILLATION INDEX IS CURRENTLY IN PHASE 5 WITH AMPLITUDE CLOSE TO 1. IT WILL REMAIN IN SAME PHASE FOR NEXT 1 DAY WITH AMPLITUDE BECOMING MORE THAN 1. THEREAFTER, IT WILL PROPAGATE EASTWARDS INTO PHASE 6 FROM 1ST DECEMBER ONWARDS. WIND SHEAR IS MODERTE 15-20 OVER GULF OF THAILAND, BECOMING HIGH OVER SOUTH THAILAND. HOWEVER, IT IS BECOMING LOW TO MODERATE (05-15) OVER NORTH ANDAMAN SEA, CENTRAL BOB AND ADJOINING NORTH BOB. TWO ZONES OF POSITIVE LOW LEVEL VORTICITY ARE SEEN OVER NORTHWEST PACIFIC (40-60x10-6°S-1) & ADJOINING GULF OF THAILAND (60-80 x10-6°S-1). OTHER FEATURES LIKE LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE ARE ALSO CONDUCIVE OVER THE REGION. THUS, CURRENT SEA & ENVIRONMENTAL CONDITIONS ARE CONDUCIVE FOR DEVELOPMENT OF CYCLONIC DISTURBANCE OVER GULF OF THAILAND AND IT'S SUSTENANCE & INTENSIFICATION OVER THE ANDAMAN SEA REGION.

MAJORITY OF THE MODELS INDICATE EMERGENCE OF CYCLONIC DISTURBANCE FROM GULF OF THAILAND OVER SOUTH ANDAMAN SEA AROUND 30^{TH} NOVEMBER WITH INITIAL WEST-NORTHWESTWARD MOVEMENT AND INTENSIFICATION INTO DEPRESSION AND CYCLONIC STORM SUBSEQUENTLY. HOWEVER, THERE IS LARGE DIVERGENCE AMONG VARIOUS MODELS W.R.T. DATE OF GENESIS (FORMATION OF DEPRESSION), INTENSIFICATION AND DIRECTION OF MOVEMENT. GFS GROUP OF MODELS IS INDICATING EMERGENCE OF A CYCLONIC STORM FROM GULF OF THAILAND BY NIGHT (AROUND 1800 UTC) OF 30^{TH} NOVEMBER AND NCUM GROUP & ECMWF ARE INDICATING EMERGENCE OF LOW PRESSURE AREA INTO ANDAMAN SEA AROUND 1^{ST} DECEMBER AND FORMATION OF DEPRESSION AROUND 2^{ND} . HENCE, LOW PROBABILITY IS ASSIGNED TO FORMATION OF DEPRESSION OVER BOB ON DAY-3, MODERATE ON DAY-4 AND HIGH ON DAY-5.

