



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 02.12.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 02.12.2021 BASED ON 0300 UTC OF 02.12.2021.

BAY OF BENGAL:

YESTERDAY'S LOW PRESSURE AREA OVER CENTRAL PARTS OF ANDAMAN SEA MOVED WEST-NORTHWESTWARDS AND BECAME A WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL & ADJOINING ANDAMAN SEA IN THE EARLY MORNING (0000 UTC) OF TODAY, THE 2ND DECEMBER 2021. IT LAY OVER SOUTHEAST BAY OF BENGAL AT 0300 UTC OF TODAY. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL DURING NEXT 12 HOURS. THEREAFTER, IT IS LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL PARTS OF THE BAY OF BENGAL DURING SUBSEQUENT 24 HOURS. IT IS LIKELY TO REACH WESTCENTRAL BAY OF BENGAL OFF NORTH ANDHRA PRADESH – SOUTH ODISHA COASTS AROUND 4TH DECEMBER MORNING. THEREAFTER, IT IS LIKELY TO MOVE NORTHNORTHEASTWARDS.

AS PER INSAT 3D IMAGERY, THE WELL MARKED LOW PRESSURE AREA IS CENTERED NEAR 10.0N/90.0E. INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 1.0. THE CLOUDS ARE ORGANISED IN SHEAR PATTERN WITH ASSOCIATED CLOUD MASS SHEARED TO THE NORTHWEST OF SYSTEM CENTRE. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST & ADJOINING SOUTHWEST AND CENTRAL BOB BETWEEN LATITUDE 8.5N TO 16.5N & LONGITUDE 82.0E TO 92.5E & ANDAMAN ISLANDS AND ADJOINING ANDAMAN SEA. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 93 DEG C.

THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1004 HPA. SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHEAST 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
HIGH	HIGH	HIGH	HIGH	LOW

ARABIAN SEA:

YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA LAY OVER NORTHEAST ARABIAN SEA OFF SOUTH GUJARAT AND NORTH MAHARASHTRA COASTS EXTENDING UPTO 3.1 KM ABOVE MEAN SEA LEVEL.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA OFF MAHARASHTRA COAST AND ISOLATED WEAK TO MODERATE CONVECTION OVER COMORIN AREA. CONVECTION OVER EASTCENTRAL ARABIAN SEA OFF MAHARASHTRA COAST & KONKAN AREA HAS FURTHER

DECREASED DURING PAST 24 HOURS. MINIMUM CLOUD TOP TEMPEARTURE IS MINUS 70 DEG C. POLEWARD OUTFLOW IS OBSERVED OVER NORTHWEST INDIA DUE TO DEEP WESTERLY TROUGH.

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 SOUTHEAST BAY OF BENGAL (BOB) AND ADJOINING ANDAMAN SEA. IT IS GRADUALLY DECREASING TOWARDS NORTHWEST BECOMING 60-80 OVER WESTCENTRAL & NORTHWEST BOB. DEPTH OF 26°C ISOTHERM IS 100-120 M OVER WESTCENTRAL & ADJOINING NORTHWEST BOB. THE MADDEN JULIAN OSCILLATION INDEX IS CURRENTLY IN PHASE 6 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE DURING NEXT 7 DAYS. WIND SHEAR IS MODERTE 10-15 OVER THE SYSTEM AREA OVER SOUTHEAST BOB. IT IS ALSO MODERATE (15-20) OVER WESTCENTRAL & NORTHWEST BOB UPTO ANDHRA PRADESH-ODISHA COASTS. POSITIVE LOW LEVEL VORTICITY HAS INCREASED DURING PAST 24 HOURS AND IS AROUND 100x10⁻⁶S⁻¹ OVER SYSTEM AREA OVER SOUTHEAST BOB. LOW LEVEL CONVERGENCE IS 20x10⁻⁶S⁻¹ TO THE SYSTEM CENTRE OVER EASTCENTRAL BOB. UPPER LEVEL NORTH OF DIVERGENCE IS $30x10^{-5}S^{-1}$ TO THE NORTHWEST OF SYSTEM CENTRE OVER CENTRAL BOB. UPPER TROPOSPHERIC RIDGE RUNS ALONG 15⁰N. A TROUGH IN MID & UPPER TROPOSPHERIC WESTERLIES RUNS ALONG LONG. 630E TO THE NORTH OF LAT. 10⁰N. THE EAST-SOUTHEASTERLY WINDS PREVAILING IN THE THE UPPER LEVELS WILL STEER THE SYSTEM WEST-NORTHWESTWARDS DURING NEXT 12 HOURS. THEREAFTER, AS THE SYSTEM COMES CLOSER TO THE RIDGE, IT WILL MOVE NORTHWESTWARDS DURING SUBSEQUENT 24 HOURS. THEREAFTER, THE WILL CROSS THE RIDGE AND WILL BE STEERED NORTHEASTWARDS FROM 4TH DECEMBER EVENING ONWARDS, UNDER THE INFLUENCE OF SOUTH-SOUTHWESTERLIES PREVAILING IN THE NORTHERN PERIPHERY OF RIDGE AND THE APPROACHING TROUGH IN WESTERLIES AT MIDDLE AND UPPER TROPOSPHERIC LEVELS.

MAJORITY OF THE MODELS INDICATE INTENSIFICATION OF CURRENT WELL MARKED LOW PRESSURE AREA INTO DEPRESSION DURING NEXT 12 HOURS AND INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS. TODAY'S MODEL GUIDANCE INDICATE THE SYSTEM TO REACH PEAK INTENSITY OF CYCLONIC STORM AROUND 0000 UTC OF $3^{\rm RD}$ DECEMBER, REACH NORTHWEST BOB CLOSE TO NORTH ANDHRA PRADESH COAST AROUND $4^{\rm TH}$ EVENING AND RECURVE NORTHNORTHEASTWARDS FROM $5^{\rm TH}$ MORNING ONWARDS. IN VIEW OF ABOVE, HIGH PROBABILITY IS ASSIGNED TO FORMATION OF DEPRESSION OVER BOB ON DAY-1.

UNDER, THESE FAVOURABLE CONDITIONS, THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL DURING NEXT 12 HOURS. THEREAFTER, IT IS LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL PARTS OF THE BAY OF BENGAL DURING SUBSEQUENT 24 HOURS. IT IS LIKELY TO REACH WESTCENTRAL BAY OF BENGAL OFF NORTH ANDHRA PRADESH – SOUTH ODISHA COASTS AROUND 4TH DECEMBER MORNING. THEREAFTER, IT IS LIKELY TO MOVE NORTH-NORTHEASTWARDS.

SAT: INSAT-3D IMG IMG_TIR1_TEMP 10.8 um 02-12-2021/(0530 to 0557) GMT 02-12-2021/(1100 to 1127) IST



L1C Mercator

