



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 20.11.2020

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 20.11.2020 BASED ON 0300 UTC OF 20.11.2020 .

BAY OF BENGAL:

A CYCLONIC CIRCULATION LIES OVER EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHEAST BAY OF BENGAL (BOB). UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS VERY LIKELY TO FORM OVER CENTRAL PARTS OF SOUTH BOB AROUND 23RD NOVEMBER, 2020. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BOB AND MOVE WEST-NORTHWESTWARDS TOWARDS SRILANKA-TAMILNADU COASTS DURING SUBSEQUENT 48 HOURS.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL SOUTH OF LATITUDE 10.0 NORTH & SOUTH ANDAMAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED TO INTENSE CONVECTION LAY OVER 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	NIL	NIL	LOW	MOD

ARABIAN SEA:

YESTERDAY'S LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH ARABIAN SEA PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 20TH NOVEMBER, 2020. IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST ARABIAN SEA DURING NEXT 48 HOURS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE CONVECTION LAY OVER SOUTH & CENTRAL ARABIAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED ISOLATED MODERATE TO INTENSE CONVECTION LAY OVER NORTHEAST ARABIAN 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	MODERATE	HIGH	NIL

REMARKS:

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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THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 2 WITH AMPLITUDE EQUAL TO 1. THEREAFTER, IT WILL MOVE TO PHASE 3 WITH AMPLITUDE BECOMING LESS THAN 1 AND WILL CONTINUE THERE DURING SUBSEQUENT 4 DAYS. THUS MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE NORTH INDIAN OCEAN INCLUDING BAY OF BENGAL (BOB) AND ARABIAN SEA (AS) FOR NEXT 5 DAYS.

CONSIDERING THE SEA CONDITIONS, SST IS AROUND 29-30°C OVER MOST PARTS OF SOUTH AND EASTCENTRAL ARABIAN SEA (AS). IT IS SLIGHTLY LESS (26-28°C) OVER WESTCENTRAL & NORTH AS. HIGH TCHP (100-120 KJ/CM²) PREVAILS OVER COMORIN AREA AND ADJOINING SOUTHWEST BOB OFF SOUTH SRI LANKA COAST AND KERALA COAST. TCHP IS AROUND 60-80 KJ/CM² OVER MAJOR PARTS OF SOUTH AS EXCEPT OFF NORTH SOMALIA COAST. TCHP IS LESS THAN 50KJ/CM² TO THE WEST OF 68°E AND NORTH 11°N OVER THE CENTRAL & NORTH AS AND 60 – 80 KJ/CM² OVER REMAINING PARTS OF EASTCENTRAL & NORTHEAST AS.

CONSIDERING THE ENVIRONMENTAL CONDITIONS, POSITIVE RELATIVE VORTICITY (25-50X10⁻⁶S⁻¹) PREVAILS OVER CENTRAL PARTS OF SOUTH AS AND ADJOINING WESTCENTRAL AS WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. AREA OF POSITIVE DIVERGENCE (5-20X10⁻⁵S⁻¹) PREVAILS OVER WESTCENTRAL AS TO THE NORTHWEST OF INVEST AREA. AREA OF POSITIVE CONVERGENCE ZONE (05-10 X 10⁻⁵S⁻¹) PREVAILS OVER CENTRAL PARTS OF SOUTH AS AND ADJOINING CENTRAL AS. THE VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (5-20 KTS) OVER CENTRAL PARTS OF AS AND ADJOINING SOUTH AS. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA RUNS ALONG 15°N OVER THE AS.

SOME MODELS LIKE IMD GFS, NCEP GFS, ECMWF, NCUM AND NEPS ARE INDICATING DEVELOPMENT OF A DEPRESSION OVER SOUTHWEST AS. HOWEVER THERE IS VARIATION W.R.T. DATE OF CYCLOGENESIS WITH ECMWF INDICATING DEPRESSION AROUND 21ST, GFS, GEFS, NCUM AND NEPS AROUND 23RD. HOWEVER, ALL THE MODELS ARE UNANIMOUS ABOUT WEST-NORTHWESTWARD MOVEMENT OF THE SYSTEM TOWARDS GULF OF ADEN. MODELS ARE UNANIMOUS ABOUT INTENSIFICATION UPTO DEPRESSION STAGE ONLY.

IN ADDITION, MODELS LIKE ECMWF, GFS, GEFS, NCUM AND NEPS ARE ALSO INDICATING DEVELOPMENT OF DEPRESSION OVER SOUTHWEST BOB AROUND 24TH NOVEMBER.

CONSIDERING ALL THE ABOVE, THE EXISTING LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH AS IS EXPECTED TO MOVE WEST-NORTHWESTWARDS AND INTENSIFY INTO A DEPRESSION OVER THE SOUTHWEST AS DURING NEXT 48 HOURS. THERE IS LIKELIHOOD OF FORMATION OF A LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB AROUND 23RD NOVEMBER. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHWEST BOB AND MOVE WEST-NORTHWESTWARDS TOWARDS SRILANKA-TAMILNADU COASTS DURING SUBSEQUENT 48 HOURS.



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