REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 02.05.2023

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 02.05.2023 BASED ON 0300 UTC OF 02.05.2023.

BAY OF BENGAL:

A CYCLONIC CIRCULATION IS LIKELY TO DEVELOP OVER SOUTHEAST BAY OF BENGAL AROUND 06TH MAY, 2023. UNDER ITS INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER THE SAME REGION DURING SUBSEQUENT 48 HOURS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL & SOUTH BAY OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER ANDAMAN SEA AND WEAK TO MODERATE CONVECTION LAY OVER NORTH AND EASTCENTRAL 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 TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER COMORIN AREA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHEAST ARABIAN SEA & LAKSHYADWEEP ISLAND AREA AND ISOLATED WEAK TO MODERATE CONVECTION LAY OVER NORTHEAST, CENTRAL & SOUTHWEST 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	NIL	NIL	NIL	NIL

REMARKS:

- THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 4 WITH AMPLITUDE MORE THAN 2. IT WILL CONTINUE IN SAME PHASE DURING NEXT 24 HOURS. THEREAFTER, IT WILL MOVE TO PHASE 5 AND CONTINUE IN SAME PHASE WITH AMPLITUDE REMAINING MORE THAN 2 DURING SUBSEQUENT 7 DAYS. THUS, MJO PHASE IS HIGHLY CONDUCIVE FOR ENHANCED CONVECTION OVER THE BAY OF BENGAL (BOB) DURING NEXT 7-8 DAYS.

DURING NEXT 2 DAYS, EASTERLY WINDS (1-3 MPS) ARE PREVAILING TO PREVAIL OVER SOUTH ANDAMAN SEA AND SOUTH BOB IN THE LOWER TROPOSPHERIC LEVELS. THEREAFTER, THE WESTERLY WINDS ARE LIKELY TO PREVAIL OVER THE SOUTH BOB AND SOUTH ANDAMAN SEA WITH EASTERLY WINDS OVER CENTRAL & NORTH BOB. MJO IS ALSO LIKELY OVER BOB DURING NEXT 6-7 DAYS. THUS, THE EQUATORIAL WAVES AND MJO ARE LIKELY TO COLLECTIVELY CONTRIBUTE TOWARDS ENHANCEMENT OF CONVECTIVE ACTIVITY AND HENCE CYCLOGENESIS OVER SOUTH BOB FROM 6^{TH} MAY ONWARDS.

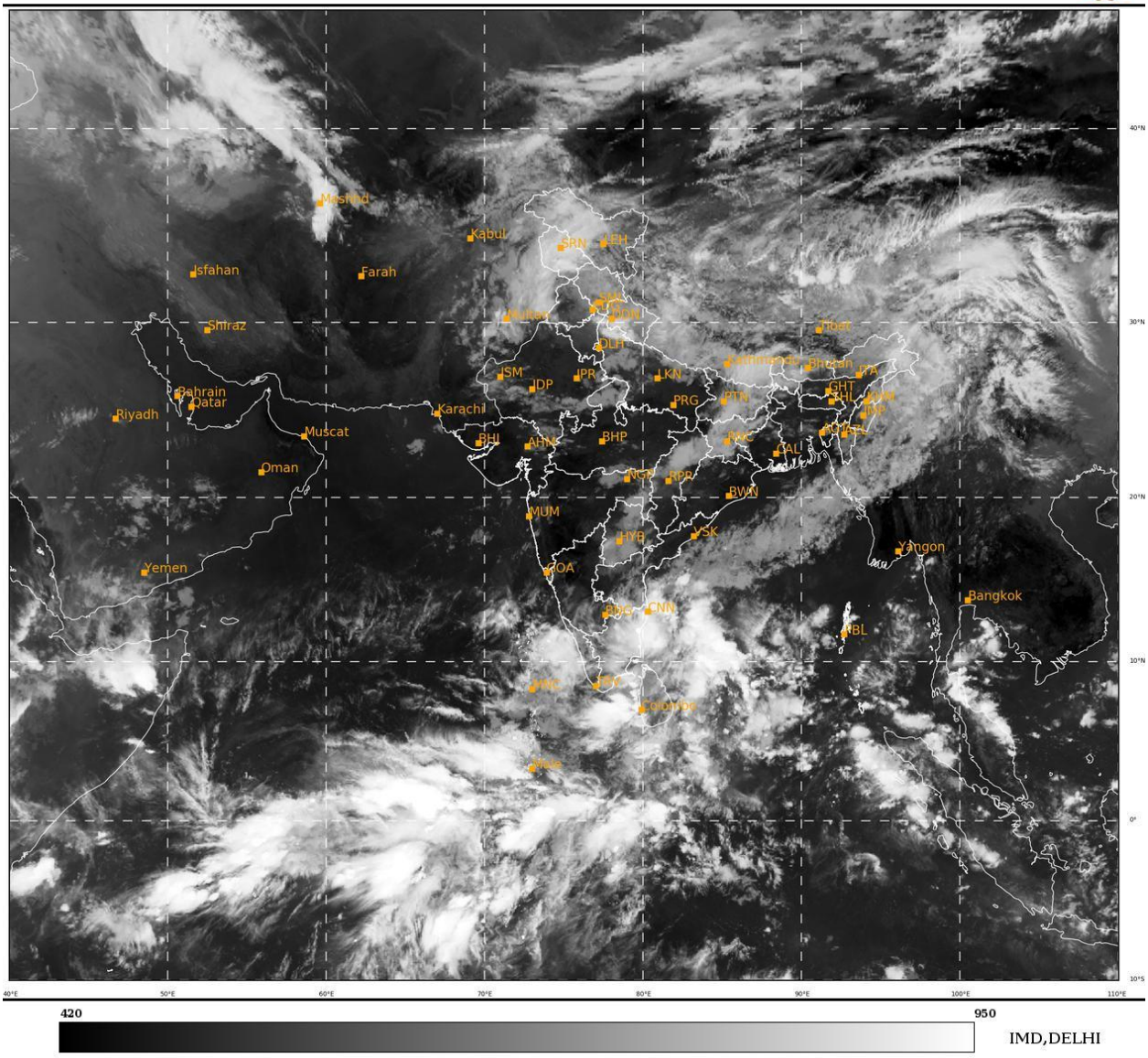
- THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 100 KJ/CM^2 OVER MAJOR PARTS OF SOUTH ANDAMAN SEA & ADJOINING SOUTHEAST BOB AND CENTRAL BOB. IT IS INDICATING DECREASING TENDENCY ABOUT 60-70 KJ/CM^2 ALONG THE EAST COAST OF INDIA & ALONG MYANMAR COAST. SEA SURFACE TEMPERATURE (SST) IS AROUND 30-32°C OVER ENTIRE BOB. THE SEA CONDITIONS OVER BOB ARE ALSO CONDUCIVE FOR CYCLOGENESIS.

- CONSIDERING THE MODEL GUIDANCE, IMD GFS IS INDICATING A LOW PRESSURE AREA OVER SOUTHEAST BOB ON 7^{TH}, INTENSIFYING INTO A CYCLONIC STORM ON 9^{TH} NEAR TO ANDAMAN ISLANDS AND MOVING NEARLY NORTH-NORTHEASTWARDS TOWARDS EASTCENTRAL BOB TILL 11^{TH}, SKIRTING THE ANDAMAN ISLANDS ON WAY. GEFS IS INDICATING AN LPA OVER SOUTHEAST BOB ON 7^{TH} AND DEPRESSION ON 9^{TH} MAY. NCUM IS INDICATING DEVELOPMENT OF AN LPA OVER SOUTHEAST BOB AROUND 10^{TH} WITH GRADUAL NORTHWESTWARDS MOVEMENT AND NO SIGNIFICANT INTENSIFICATION. NEPS IS NOT INDICATING ANY DEVELOPMENT OVER THE BOB. ECMWF IS INDICATING AN LPA OVER SOUTH ANDAMAN SEA AROUND 7^{TH}, DEPRESSION OVER SOUTHEAST BOB AND ADJOINING SOUTH ANDAMAN SEA AROUND 9^{TH} WITH GRADUAL NORTH-NORTHEASTTWARDS MOVEMENT AND INTENSIFICATION INTO CYCLONIC STORM NEAR TO ANDAMAN ISLANDS. BOTH GFS AND ECMWF ARE INDICATING FURTHER INTENSIFICATION INTO SEVERE CATEGORY STORM. ECMWF ENSEMBLE IS INDICATING LIKELY DEVELOPMENT OF LOW PRESSURE AREA AROUND 8^{TH}/9^{TH}, DEPRESSION AROUND 10^{TH} AND CYCLONIC STORM AROUND 11^{TH}. MOST OF THE ENSEMBLE MEMBER MODELS ARE INDICATING INITIAL NORTHWESTWARDS MOVEMENT WITH NORTHEASTWARDS RECURVATURE OVER CENTRAL BOB.

- HENCE TO CONCLUDE, A CYCLONIC CIRCULATION IS LIKELY TO FORM OVER SOUTHEAST BAY OF BENGAL AROUND 6^{TH} MAY. UNDER ITS INFLUENCE A LOW PRESSURE AREA IS LIKELY TO FORM OVER THE SAME REGION AROUND 7^{TH} . IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL DURING SUBSEQUENT 48 HOURS. FURTHER INTENSIFICATION AND MOVEMENT OF THE SYSTEM IS BEING TRACKED. SOME MODELS INDICATE THAT THE SYSTEM MAY FURTHER INTENSIFY INTO A CYCLONIC STORM. THUS, NIL CYCLOGENESIS (FORMATION OF DEPRESSION) IS INDICATED DURING NEXT 5 DAYS.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
L1C Mercator

02-05-2023/(0300 to 0326) GMT
02-05-2023/(0830 to 0856) IST



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IMD,DELHI

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%
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