



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 30.03.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 30.03.2021 BASED ON 0300 UTC OF 30.03.2021.

BAY OF BENGAL:

YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHEAST BAY OF BENGAL (BOB) & NEIGHBOURHOOD LAY OVER SOUTHEAST BOB & ADJOINING SOUTH ANDAMAN SEA WITH VERTICAL EXTENSION UPTO 4.5 KM ABOVE MEAN SEA LEVEL. UNDER ITS INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTHEAST BOB & ADJOINING SOUTH ANDAMAN SEA DURING NEXT 24 HOURS. IT IS LIKELY TO BECOME MORE MARKED OVER NORTH ANDAMAN SEA & NEIGHBOURHOOD DURING SUBSEQUENT 24 HOURS.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE CONVECTION OVER SOUTHEAST BOB, ANDAMAN SEA AND TENASSERIM COAST.

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	LOW	LOW

ARABIAN SEA:

UNDER THE INFLUENCE OF THE CYCLONIC CIRCULATION OVER EQUATORIAL INDIAN OCEAN (EIO) & ADJOINING SOUTHEAST ARABIAN SEA (AS), A LOW PRESSURE AREA FORMED OVER EIO TO THE SOUTH OF SOUTHEAST ARABIAN SEA AT 1200 UTC OF 29TH MARCH, 2021. IT LAY OVER SOUTHEAST ARABIAN SEA & ADJOINING EIO AT 0300 UTC OF TODAY, THE 30TH MARCH 2021 WITH ASSOCIATED CYCLONIC CIRCULATION EXTENDING UPTO 3.1 KM ABOVE MEAN SEA LEVEL.

AS PER SATELLITE IMAGERY AT 0300 UTC OF 30TH MARCH, 2021, SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST AS BETWEEN LATITUDE 4.0N & 8.0N AND LONG 66.0E & 70.0E IN ASSOCIATION WITH THE LOW PRESSURE AREA OVER SOUTHEAST AS AND ADJOINING EIO. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 86 DEG C. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST PARTS OF SOUTH AS.

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:

SEA CONDITIONS OVER THE NIO:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX LIES CURRENTLY IN PHASE 5 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE DURING NEXT 4 DAYS. THEREAFTER, IT WILL MOVE TO PHASE 6 WITH AMPLITUDE REMAINING MORE THAN 1. THUS, MJO PHASE AND AMPLITUDE WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) DURING NEXT 5 DAYS. IT IS NOT CONDUCIVE FOR ENHANCEMENT OF ANY CONVECTIVE ACTIVITY OVER THE ARABIAN SEA (AS).

THE SEA SURFACE TEMPERATURE (SST) IS 29-30°C OVER ENTIRE BOB AND OVER ADJOINING EQUATORIAL INDIAN OCEAN (EIO). THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 100 KJ/CM² OVER SOUTHEAST BOB, SOUTH ANDAMAN SEA AND ADJOINING EIO. SST IS 29-31°C OVER SOUTHEAST ARABIAN SEA AND NEIGHBOURHOOD. TCHP IS MORE THAN 100 KJ/CM² OVER SOUTHEAST AS & ADJOINING EIO.

ENVIRONMENTAL CONDITIONS OVER BOB:

THE LOW LEVEL POSITIVE VORTICITY IS ABOUT 50-60 X10⁻⁶SEC⁻¹ OVER CENTRAL PARTS OF SOUTHEAST BOB AND ADJOINING SOUTH ANDAMAN SEA. POSITIVE LOW LEVEL CONVERGENCE ZONE (5-10X10⁻⁵ SEC⁻¹) LAY OVER SOUTHSOUTH ANDAMAN SEA. POSITIVE ZONE OF UPPER LEVEL DIVERGENCE (5-10X10⁻⁵ SEC⁻¹) LAY OVER SOUTHEAST BOB AND IS EXTENDING UPTO EASTCENTRAL BOB. VERTICAL WIND SHEAR IS MODERATE (5-10 KTS) OVER SOUTH BOB & ADJOINING CENTRAL BOB WITH AN INCREASING TENDENCY TOWARDS NORTH BOB. THE UPPER TROPOSPHERIC RIDGE RAN ALONG 10.5°N OVER THE BOB.

ENVIRONMENTAL CONDITIONS OVER AS:

A ZONE OF POSITIVE LOW LEVEL VORTICITY (50-60 X10⁻⁶SEC⁻¹) LAY OVER SOUTHEAST AS & MALDIVES AREA. POSITIVE LOW LEVEL CONVERGENCE ZONE (5X10⁻⁵ SEC⁻¹) LAY OVER SOUTHEAST AS. POSITIVE ZONE (5-10X10⁻⁵ SEC⁻¹) OF UPPER LEVEL DIVERGENCE LAY OVER CENTRAL PARTS OF SOUTH AS. VERTICAL WIND SHEAR IS MODERATE (10-15 KTS) OVER ENTIRE AS.

MODEL GUIDANCE:

THE CYCLONIC CIRCULATION OVER SOUTHEAST BOB AND ADJOINING SOUTH ANDAMAN SEA IS CURRENTLY LYING IN A FAVOURABLE ENVIRONMENT. MOST OF THE MODELS ARE INDICATING LIKELY FORMATION OF LOW PRESSURE AREA OVER SOUTHEAST BOB & ADJOINING SOUTH ANDAMAN SEA DURING NEXT 24 HOURS WITH FURTHER INTENSIFICATION DURING SUBSEQUENT 24 HOURS OVER NORTH ANDAMAN SEA. HOWEVER, THERE IS LARGE DIVERGENCE AMONG VARIOUS MODELS WITH RESPECT TO PEAK INTENSIFICATION OF THE SYSTEM. HOWEVER, MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARDS MOVEMENT OF THE SYSTEM TOWARDS MYANMAR COAST. MODELS ARE ALSO INDICATING A LOW PRESSURE AREA OVER SOUTHEAST AS & NEIGHBOURHOOD WITH WEAKENING DURING NEXT 24 HOURS.



