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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 08.04.2025

TROPICAL WEATHER OUTLOOK FOR THE NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR THE NEXT 168 HOURS ISSUED AT 0600 UTC OF 08.04.2025 BASED ON 0300 UTC OF 08.04.2025.

BAY OF BENGAL:

Yesterday's low-pressure area over central parts of South Bay of Bengal (BoB) moved northwestwards and lay as a well-marked low pressure area over southwest & adjoining westcentral BoB at 0300 UTC of today, the 08th April, 2025 with associated cyclonic circulation extending upto middle tropospheric levels. It is likely to move north-northwestwards over westcentral BoB during next 24 hours, maintaining it's intensity of well-marked low-pressure area. Thereafter, it is likely to recurve nearly north-northeastwards and weaken gradually over central BoB during subsequent 24 hours.

As per the INSAT 3D(R) imagery at 0300 UTC, the centre of low level cyclonic circulation is around 12.4N/85.0E about 150 km (1.4^0) away from the sharp boundary of intense convection. According the associated intensity has been fixed as T1.0. Scattered to broken low and medium clouds with embedded intense convection lay over south & central BoB between latitude 5.0N to 17.0N and longitude 84.0E to 92.0E. Minimum cloud top temperature is -60^0C to -70^0C. Scattered low and medium clouds with embedded isolated moderate to intense convection lay over north BoB, Andaman Sea. Multisatellite based winds are indicating stronger winds in northeast sector. Total precipitable water imagery is indicating warm moist air incursion into the core of system. Water vapour imagery is indicating relative humidity (>50%) in the northeast sector. ASCAT winds at 0341 UTC are indicating 25-33 kt winds in the northeast sector.

Latest observations indicate that the associated estimated maximum sustained wind speed is 15-20 kt. The estimated central pressure is 1009 hPa and pressure drop at centre is 2 hPa.

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
LOW	NIL	NIL	NIL	NIL	NIL	NIL

*NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY

ARABIAN SEA:

Scattered low and medium clouds with embedded moderate to intense convection lay over southeast Arabian Sea south of latitude 8.0N & north Maldives.

***PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:**

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°Cto-40°C,(c)Intense:CTT: -41°Cto -70°Cand(d)VeryIntense::Lessthan -70°C PROBABILITYOFCYCLOGENESIS(FORMATIONOFDEPRESSION):NIL:0%,LOW:1-33%,,MODERATE:34-66%ANDHIGH:67-100% ThisisaguidanceBulletinforWMO/ESCAPPanelMembercountries.VisitrespectiveNationalwebsitesforCountryspecificBulletins

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	NIL	NIL	NIL	NIL

*NOTE: EVERY 24HR FORECAST IS VALID UPTO 0300 UTC (0830 IST) OF NEXT DAY

REMARKS:

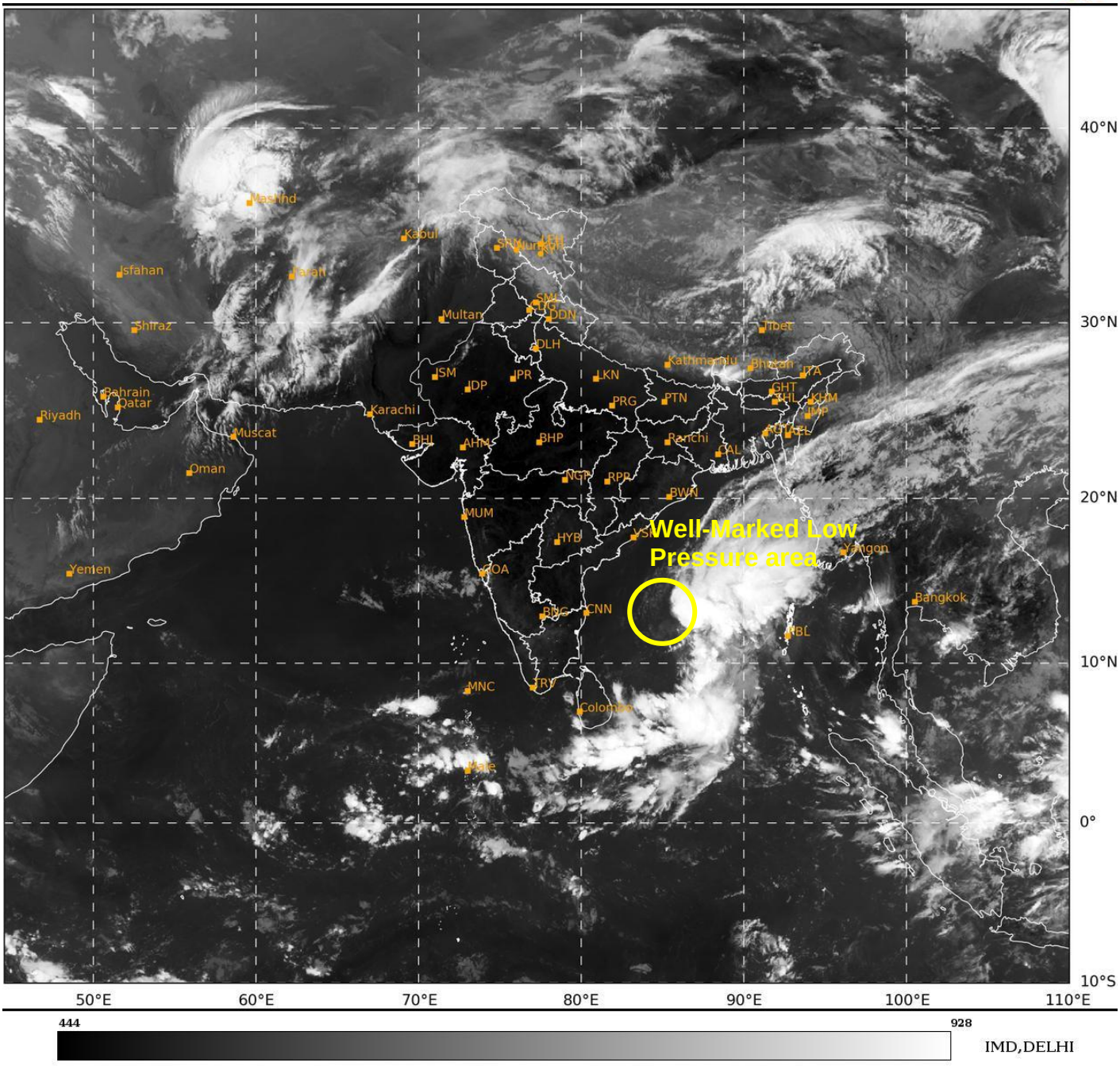
Madden Julian Oscillation (MJO) is currently in phase 2 with amplitude less than 1. It is predicted to move across phases 2, 3 and 4 during next 3-4 with amplitude less than 1. Thus, MJO is likely to support enhancement of convective activity and cyclogenesis (formation of depression) over the North Indian Ocean (NIO) during next 3-4 days. During 8^{th} –9^{th} April, the NCICS CFS model is indicating enhanced westerly wind anomaly (5-7 mps), MJO, Equatorial Rossby wave (ERW), and approaching Kelvin wave (KW) over south BoB and strong easterly wind anomaly (5-7 mps) over central BoB. The sea surface temperature is 29-30^{0}C over the south BoB and tropical cyclone heat potential is 120-150 KJ/cm^2. Thus, MJO, Equatorial waves and sea conditions are favourable for development and maintenance of intensity of low-pressure area over the BoB. The low-level vorticity is 50-70X10^{-6}s^{-1} over southeast & adjoining southwest BoB, low level convergence is 20 X10^{-6}s^{-1} over central and adjoining southeast BoB, upper-level divergence is 40 X10^{-6}s^{-1} over central and adjoining southeast BoB and both are oriented towards northeast BoB. Wind shear is low to moderate (<20 kt) over the region and is high (>30 kt) over central & north BoB. Under these favourable features, the low-pressure area over central parts of south BoB moved northwestwards and lay as a well marked low pressure area over southwest & adjoining westcentral BoB. The southeasterly winds in the mid-tropospheric levels steered the system northwestwards. There is deep trough along 80^{0}E upto 10^{0}N which is supporting upper level divergence and would steer the system north-northeastwards.

Most of the numerical models (ECMWF, NCEP GFS, IMD GFS) are indicating northwestwards movement of the system during next 24 hours followed by north-northeastwards movement over westcentral BoB thereafter during subsequent 24 hours. Models are not indicating any further intensification of the system which is also supported by unfavourable wind shear over central BoB.

Considering all the above, the well marked low-pressure area over southwest & adjoining westcentral BoB is likely to move north-northwestwards over westcentral BoB during next 24 hours as a well marked low pressure area. However, there is also, low probability of its intensification into a depression over westcentral BoB during next 24 hours. Thereafter, it is likely to recurve nearly north-northeastwards and weaken gradually over central BoB during subsequent 24 hours.

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

08-04-2025/(0245 to 0312) GMT
08-04-2025/(0815 to 0842) IST



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