



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 29.09.2025

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 29.09.2025 BASED ON 0300 UTC OF 29.09.2025.

ARABIAN SEA:

Well marked low pressure area over Gulf of Cambay and neighbourhood

Yesterday's well-marked low-pressure area over West Vidarbha and adjoining North Madhya Maharashtra moved west-northwestwards lay over Gulf of Cambay and neighbourhood at 0000 UTC and persisted over the same region at 0300 UTC of today, the 29th September 2025 and the associated cyclonic circulation extended upto 7.6 km above mean sea level tilting southwestwards with height.

It is likely to continue to move west-northwestwards across Saurashtra and emerge into northeast Arabian Sea around 1st October, 2025. There is a possibility of its intensification into a depression around the time of emergence into the northeast Arabian Sea.

The estimated centre is 21.4N/72.4 E with estimated central pressure as 998 hPa. Associated maximum sustained wind speed is 15-20 kt gusting to 30 kt.

Mahuva (42837) reported mean sea level pressure (MSLP) of 998.9 hPa, pressure departure (Dep) of -11.1 hPa and 24-hour pressure change(P24) of -5.4 hPa. Surat (42840) reported MSLP of 999.6 hPa, maximum sustained wind speed (MSW) of 200⁰/06 kt, Dep of -10.6 hPa and P24 of -4.0 hPa. Bhavanagar (42838) reported MSLP of 1000.0 hPa, maximum sustained wind speed (MSW) of 70⁰/13 kt and Dep of -10.1 hPa.

Scattered to broken low and medium clouds with embedded intense to very intense convection lay over northeast & adjoining eastcentral Arabian Sea and Gulf of Cambay & Gulf of Kutch with minimum cloud top temperature (70-90°C). Scattered low and medium clouds with embedded isolated moderate to intense convection lay over northwest & westcentral Arabian Sea, Lakshadweep Islands area, Maldives and Comorin area.

The system is also monitored by Doppler Weather Radar Bhuj. 0300 UTC wind analysis indicate backing of winds over Kutch region indicating cold air advection.

***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
NIL	LOW	MOD	MOD	NIL	NIL	NIL

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

Sea Area Warning:

Squally wind speed reaching 40-50 gusting to 60 kmph with rough to very rough sea condition is very likely to prevail over Eastcentral & adjoining Northeast Arabian Sea and along & off Maharashtra and South Gujarat coasts during 29th to 30th September.

Squally wind speed reaching 40-50 gusting to 60 kmph with rough to very rough sea condition is very likely to prevail over Northeast Arabian Sea and along & off North Gujarat coast during 29th September to 1st October.

Fishermen warnings:

Fishermen are advised not to venture into Eastcentral & Northeast Arabian Sea and along & off Maharashtra and Gujarat coasts till 1st October.

BAY OF BENGAL:

A fresh upper air cyclonic circulation is likely to emerge into north Andaman Sea on 30th September. Under its influence a low pressure area is likely to form over north & adjoining central Bay of Bengal around 01st October 2025.

Scattered to broken low and medium clouds with embedded intense to very intense convection lay over central & southeast Bay of Bengal and south Andaman Sea. Scattered low and medium clouds with embedded moderate to intense convection lay over the rest parts of Bay of Bengal and north Andaman Sea.

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NIL	NIL	NIL	NIL	NIL	NIL	NIL

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

REMARKS:

As per ECMWF model, Madden Julian Oscillation (MJO) is currently in phase 2 with amplitude less than 1. It is likely to continue in same phase with gradually increasing amplitude during next 4-5 days. MJO phase is favourable for enhancement of convective activity over the Arabian Sea (AS) during next 4-5 days. The guidance from the NCICS CFS model is indicating extension of westerly wind anomaly (5-7 mps) over south AS across South Peninsular India and south BoB alongwith Equatorial Rossby wave (ERW), MJO and Kelvin wave (KW) during next 3 days. Further, it is indicating, strong easterly wind anomaly (5-7 mps) to its north over northwest India. All these features indicate favourable environment for maintenance of intensity of system over the Gujarat and Northeast Arabian Sea.

As per guidance from CIMSS, the low level vorticity is about $70-80 \times 10^{-6} \text{ s}^{-1}$ around the system at 850 hPa extending upto 500 hPa level. The low level convergence is around $20 \times 10^{-6} \text{ s}^{-1}$ to the southwest of system centre. Upper level divergence is about $20 \times 10^{-6} \text{ s}^{-1}$ to the west of

system centre. The east-southeasterlies prevailing in the middle-upper tropospheric levels are steering the system nearly west-northwestwards. Mid-level vertical wind shear (VWS) of horizontal wind is moderate (15-20 kts) and anticyclonic over the system area and along the predicted path, which is favourable for maintenance of intensity of this system while moving west-northwestwards towards northeast Arabian Sea.

Most of the models (IMD GFS, ECMWF, NCEP and NCUM(G)) are indicating west-northwestwards movement of the system across Saurashtra and emergence of the system into northeast Arabian sea around 1st October. Thereafter, models are indicating intensification of system into Depression around 1st October. However, there is variation among various models with respect to further intensification of the system. ECMWF, IMD GFS, ECAI and NCUM are indicating further intensification of the system while moving west-southwestwards towards westcentral Arabian Sea. Models are also indicating weakening of this system over westcentral Arabian Sea around 5th/6th October. However, NCEP GFS is not indicating formation of depression over Arabian Sea. It is indicating the system to move as a Low Pressure Area over North & Central Arabian Sea after emergence. Hence, moderate probability of cyclogenesis (formation of depression) is assigned during 1st to 3rd October over the Arabian Sea.

With respect to the system over Bay of Bengal there is consensus among various models (NCEP GFS, ECMWF, NCUM and IMD GFS) about development of low pressure area over north and adjoining central Bay of Bengal around 1st October with movement towards West Bengal-Bangladesh coasts. NCUM and ECMWF are showing movement towards Odisha coast. All models except NCUM are showing intensification upto well marked low pressure area only. Hence, NIL probability of cyclogenesis (formation of depression) is maintained over Bay of Bengal.

Both the systems are under continuous Watch.

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