



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 01.10.2023**

**SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0300 UTC OF 01.10.2023 BASED ON 0000 UTC OF 01.10.2023.**

**SUB: A) DEPRESSION OVER SOUTH KONKAN**

**B) WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST JHARKHAND AND ADJOINING AREAS OF GANGETIC WEST BENGAL & NORTH ODISHA**

**A) DEPRESSION OVER SOUTH KONKAN**

THE DEPRESSION OVER SOUTH KONKAN MOVED EAST-NORTHEASTWARDS WITH A SPEED OF 9 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 0000 UTC OF 1<sup>ST</sup> OCTOBER, 2023 OVER THE SAME REGION, NEAR LATITUDE 17.0 °N AND LONGITUDE 74.0°E, ABOUT 70 KM EAST OF RATNAGIRI (43110, MAHARASHTRA), 130 KM NORTH-NORTHWEST OF VENGRULA (43193, MAHARASHTRA) AND 170 KM NORTH-NORTHWEST OF PANJIM (43192, GOA).

IT IS VERY LIKELY TO MOVE EAST-NORTHEASTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 24 HOURS.

AS PER INSAT 3D IMAGERY, VORTEX LIES OVER SOUTH KONKAN ADJOINING SOUTH MADHYA MAHARASHTRA & N/HOOD. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA OFF MAHARASHTRA COAST (CLOUD TOP TEMPERATURE IS -93°C), NORTH KONKAN COAST (CLOUD TOP TEMPERATURE IS -80°C).

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1002.8 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER EASTCENTRAL ARABIAN SEA ALONG & OFF MAHARASHTRA-GOIA-KARNATAKA COASTS DURING NEXT 12 HOURS AND GRADUALLY IMPROVE THEREAFTER.

**B) WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST JHARKHAND AND ADJOINING AREAS OF GANGETIC WEST BENGAL & NORTH ODISHA.**

THE **WELL MARKED LOW PRESSURE AREA** OVER COASTAL WEST BENGAL AND ADJOINING AREAS OF NORTH COASTAL ODISHA & NORTHWEST BAY OF BENGAL LIES OVER SOUTHEAST JHARKHAND AND ADJOINING AREAS OF GANGETIC WEST BENGAL & NORTH ODISHA AT 0000 UTC OF 1ST OCTOBER, 2023. IT IS LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS DURING NEXT 12 HOURS.

AS PER INSAT 3D IMAGERY, VORTEX LIES OVER WESTERN PARTS OF GANGETIC WEST BENGAL ADJACENT TO EAST JHARKHAND & NEIGHBOURHOOD. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EAST JHARKHAND, NORTH CHHATTISGARH, ODISHA, GANGETIC WEST BENGAL AND NORTHWEST BAY OF BENGAL (CLOUD TOP TEMPERATURE IS  $-93^{\circ}\text{C}$ ) AND MODERATE TO INTENSE CONVECTION OVER SOUTH BIHAR AND WEST JHARKHAND.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 10-15 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 998 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER NORTH BAY OF BENGAL ALONG & OFF NORTH ODISHA-WEST BENGAL AND ADJOINING BANGLADESH COASTS ON 1<sup>ST</sup> OCTOBER, 2023.

**REMARKS:**

**ARABIAN SEA:**

THE ENVIRONMENTAL FEATURES INDICATE POSITIVE LOW LEVEL VORTICITY ( $100 \times 10^{-6} \text{ S}^{-1}$ ) TO THE SOUTH OF SYSTEM CENTRE WITH EXTENSION UPTO 500 HPA. THE SYSTEM IS BEING STEERED NORTHEASTWARDS BY THE MEAN WIND FLOW IN THE LOWER TO MIDDLE TROPOSPHERIC LEVELS IN ASSOCIATION WITH LARGE SCALE SOUTHWEST MONSOON FLOW. THE POSITIVE CONVERGENCE IS ABOUT  $10 \times 10^{-5} \text{ S}^{-1}$  OVER THE SYSTEM CENTRE AND, POSITIVE UPPER LEVEL DIVERGENCE HAS REDUCED AND IS ABOUT  $10 \times 10^{-5} \text{ S}^{-1}$  WEST OF THE SYSTEM. WIND SHEAR IS MODERATE OVER SYSTEM AREA (15-20 KNOTS) AND TO THE NORTHEAST OF SYSTEM AREA. THE DEPRESSION OVER SOUTH KONKAN IS LIKELY TO WEAKEN GRADUALLY DURING NEXT 24 HOURS.

MOST OF THE MODELS SUCH AS ECMWF, IMDGFS, NCEP GFS AND NCUM ARE INDICATING GRADUAL EAST-NORTHEASTWARDS MOVEMENT OF DEPRESSION AND WEAKENING DURING NEXT 24 HOURS.

CONSIDERING ALL THESE, THE DEPRESSION OVER SOUTH KONKAN VERY LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 24 HOURS.

**BAY OF BENGAL:**

THE ENVIRONMENTAL FEATURES INDICATE POSITIVE LOW LEVEL VORTICITY ( $100 \times 10^{-6} \text{ S}^{-1}$ ) AROUND SYSTEM CENTRE WITH EXTENSION UPTO 500 HPA. THE SYSTEM IS BEING STEERED WEST-NORTHWESTWARDS BY THE EAST-SOUTHEASTERLY WINDS IN THE

LOWER TO MIDDLE TROPOSPHERIC LEVELS. POSITIVE CONVERGENCE OF ABOUT  $10 \times 10^{-5} \text{S}^{-1}$  LIES TO THE SOUTH OF SYSTEM CENTRE, POSITIVE UPPER LEVEL DIVERGENCE OF ABOUT  $10-15 \times 10^{-5} \text{S}^{-1}$  LIES TO THE NORTHEAST OF SYSTEM CENTRE. EQUATOR OUTFLOW IS ALSO INDICATED. WIND SHEAR IS MODERATE TO HIGH OVER SYSTEM AREA (15-25 KNOTS) AND TO THE WEST OF SYSTEM AREA.

THE GLOBAL MODELS ARE IN AGREEMENT THAT THE SYSTEM WOULD MOVE WEST-NORTHWESTWARDS DURING NEXT 12 HOURS.

CONSIDERING ALL THESE, THE WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST JHARKHAND AND ADJOINING AREAS OF GANGETIC WEST BENGAL & NORTH ODISHA IS LIKELY TO MOVE WEST-NORTHWESTWARDS DURING NEXT 12 HOURS.

**RK JENAMANI**  
**RSMC NEW, DELHI**



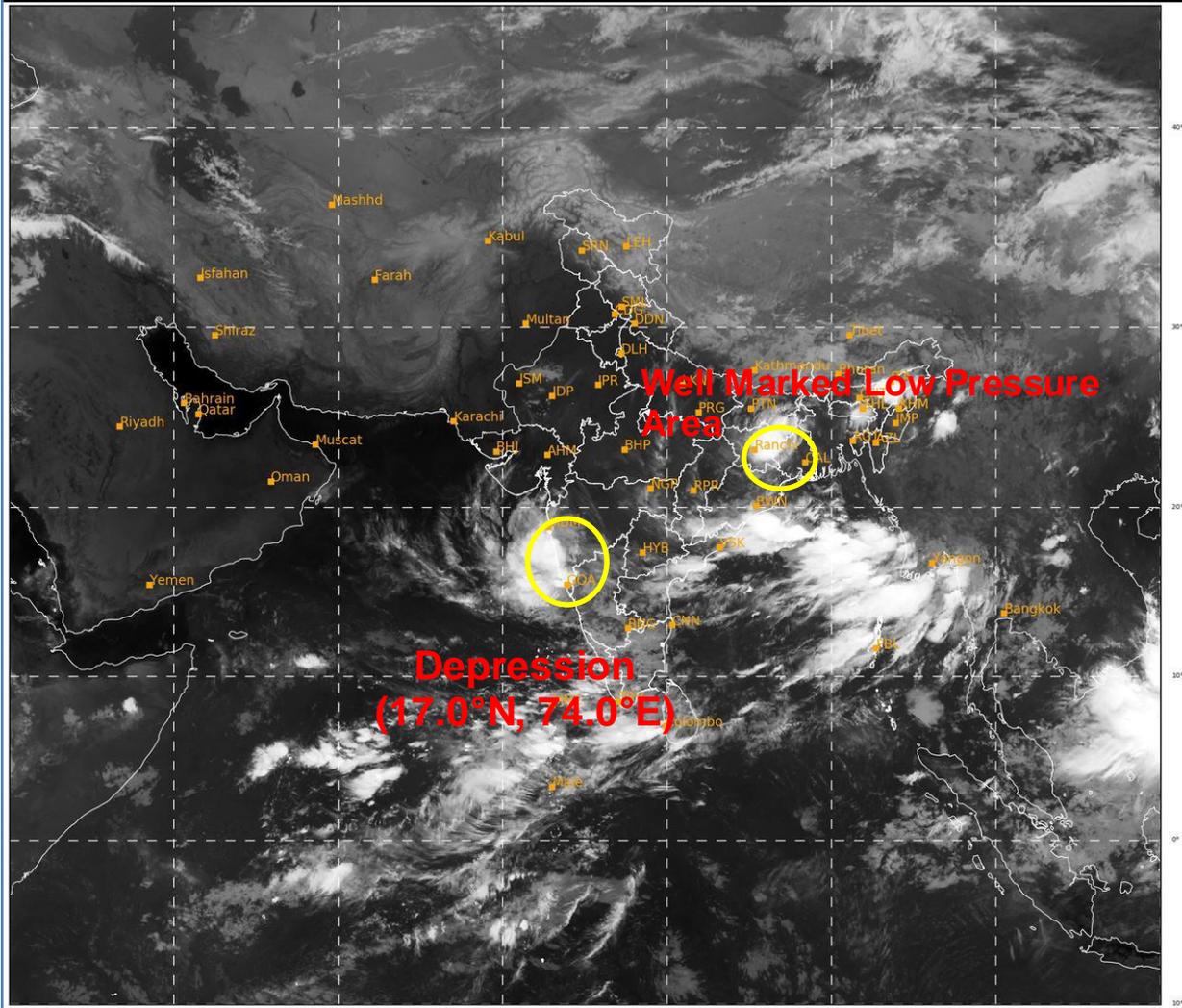
**OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTH KONKAN AND LOCATION OF WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST JHARKHAND AND ADJOINING AREA BASED ON 0000 UTC (0530 IST) OF 01<sup>ST</sup> OCTOBER, 2023.**



DATE/TIME IN UTC  
 IST=UTC + 0530  
 L: LOW PRESSURE AREA  
 WML: WELL MARKED LOW PRESSURE AREA  
 D: DEPRESSION (17-27 KT)  
 DD: DEEP DEPRESSION (28-33 KT)  
 CS: CYCLONIC STORM (34-47 KT)  
 SCS: SEVERE CYCLONIC STORM (48-63KT)  
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
 SuCS: SUPER CYCLONIC STORM (≥20 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

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%  
 This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



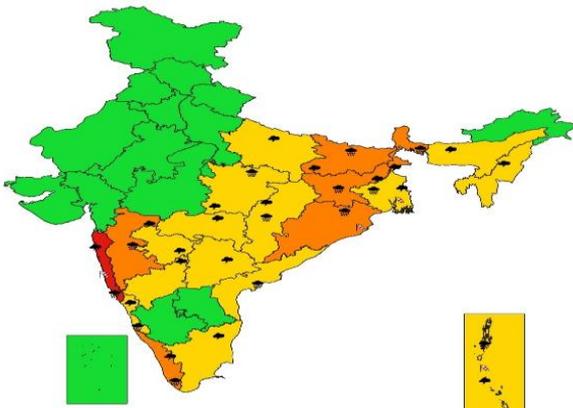
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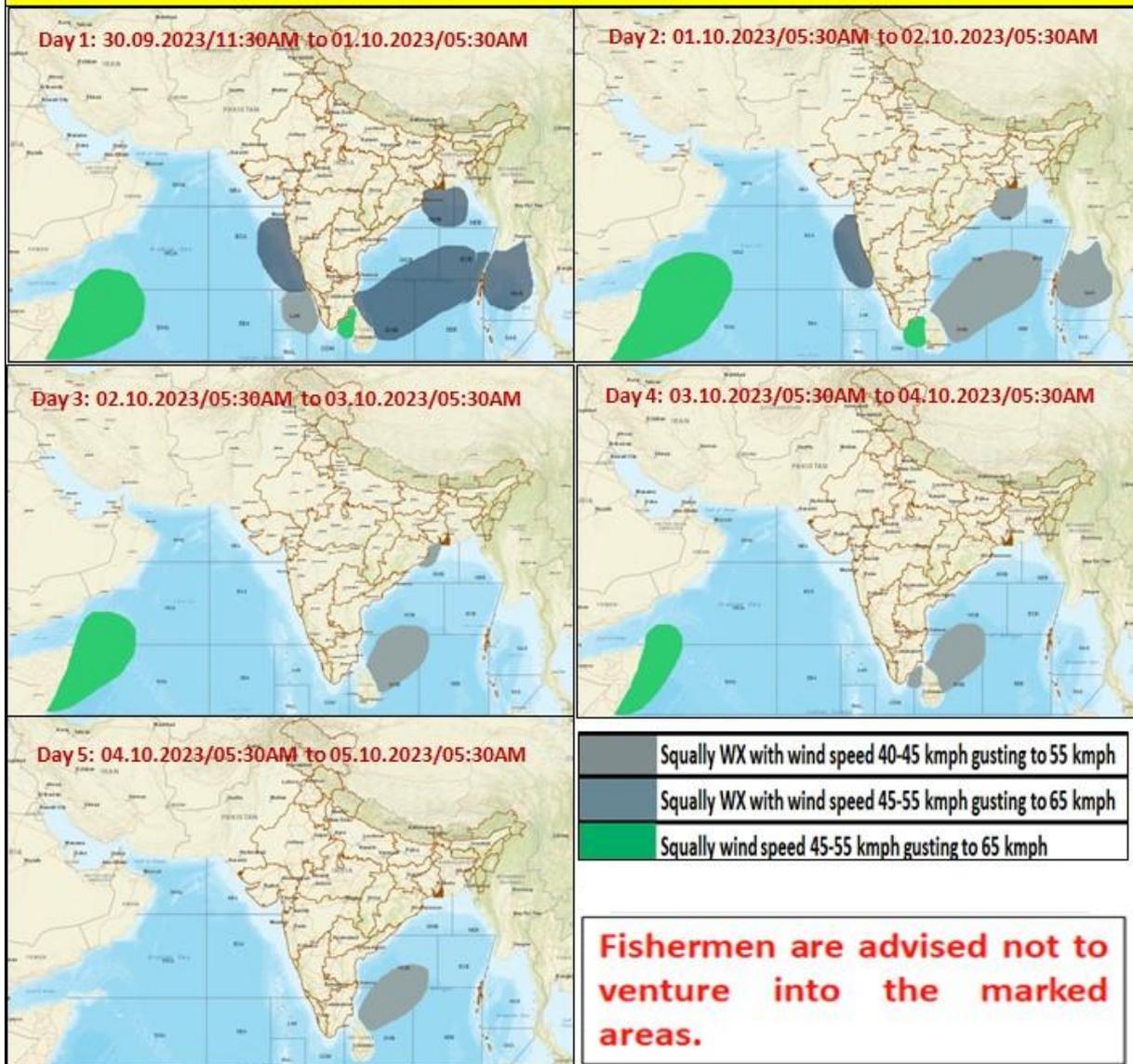
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
( 1-10-2023 )**



- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Subdivision Warning         | Dust Storm             | Subdivision color       |
| ☁ Heavy Rain                | 🌪 Strong Surface Winds | 🟢 NO WARNING            |
| ❄ Heavy Snow                | 🔥 Heat Wave            | 🟡 WATCH (BE UPDATED)    |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | 🟠 ALERT (BE PREPARED)   |
| ☁ Hallstorm                 | 🌫 Fog                  | 🔴 WARNING (TAKE ACTION) |



**Fishermen warning graphics**



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