



**India Meteorological Department  
(Ministry of Earth Sciences)**

**NATIONAL BULLETIN NO. 05 (ARB/03/2022)**

**TIME OF ISSUE: 1300 HOURS IST**

**DATED: 15.12.2022**

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**Sub: (A) Deep Depression over Eastcentral Arabian Sea  
(B) Low pressure area over Southeast Bay of Bengal & adjoining areas of East Equatorial Indian Ocean**

**(A) Deep Depression over Eastcentral Arabian Sea**

Deep Depression over Eastcentral and adjoining Southeast Arabian Sea moved west-northwestwards with a speed of 09 kmph during past 06 hours and lay centered at 0830 hrs IST of today, the 15<sup>th</sup> December 2022 over eastcentral Arabian Sea near latitude 13.9<sup>o</sup>N and longitude 67.8<sup>o</sup>E about 620 km west-northwest of Aminidivi (Lakshadweep), about 670 km west-southwest of Panjim (Goa) and 1510 km east-southeast of Salalah (Oman).

It is very likely to move nearly westwards over central Arabian Sea away from Indian coast, maintain intensity of deep depression till early hours of tomorrow and weaken gradually thereafter.

### Forecast Track and Intensity:

Date/Time(IST)	Forecast Lead Period	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
15.12.22/0830	00	13.9/67.8	55-65 gusting to 75	Deep Depression
15.12.22/1730	12	14.1/66.4	50-60 gusting to 70	Deep Depression
16.12.22/0530	24	14.2/64.8	45-55 gusting to 65	Depression
16.12.22/1730	36	14.2/63.2	40-50 gusting to 60	Depression
17.12.22/0530	48	14.1/61.6	35-45 gusting to 55	Depression
17.12.22/1730	60	13.5/60.1	25-35 gusting to 45	Well Marked Low

### Warnings:

(i) **Heavy Rainfall warning: No warning** as the deep depression is moving away from Indian coast.

### (ii) **Wind warning (warning graphics enclosed):**

- **Southeast Arabian Sea: Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** till 15<sup>th</sup> evening and decrease gradually thereafter.
- **Eastcentral Arabian Sea: Squally weather with wind speed reaching 55-65 kmph gusting to 75 kmph** is prevailing around the system center and is likely to decrease gradually becoming 45-55 kmph gusting to 65 kmph by 16<sup>th</sup> morning. It will gradually decrease further becoming 35-45 kmph gusting to 55 kmph by 17<sup>th</sup> morning.
- **Westcentral Arabian Sea: Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph** is prevailing over Westcentral Arabian Sea. It is likely to become 45-55 kmph gusting to 65 kmph by 15<sup>th</sup> December evening and continue till 16<sup>th</sup> December afternoon. It will decrease gradually thereafter becoming 35-45 kmph gusting to 55 kmph by 17<sup>th</sup> morning.
- **Southwest Arabian Sea: Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph** is prevailing over the region and is likely to become 45-55 kmph gusting to 65 kmph during 16<sup>th</sup> morning to 17<sup>th</sup> December morning. It will gradually decrease thereafter.

### (iii) **Sea Condition**

- ❖ **Southeast Arabian Sea: Sea Condition** is likely to be rough to very rough till 16<sup>th</sup> morning and improve thereafter.
- ❖ **Eastcentral Arabian Sea: Sea Condition** is likely to be rough to very rough till 17<sup>th</sup> morning and improve thereafter.
- ❖ **Westcentral Arabian Sea: Sea Condition** is likely to be rough becoming rough to very rough from 15<sup>th</sup> evening to 17<sup>th</sup> December morning and improve thereafter.
- ❖ **Southwest Arabian Sea: Sea Condition** is likely to be rough from 15<sup>th</sup> evening becoming rough to very rough during 16<sup>th</sup> to 17<sup>th</sup> December morning.

### (iv) **Fishermen Warning:**

Fishermen are advised not to venture into

- ❖ **Southeast Arabian Sea** till 16<sup>th</sup> December morning.
- ❖ **Eastcentral Arabian Sea** till 17<sup>th</sup> morning.
- ❖ **Westcentral & Southwest Arabian Sea** till 17<sup>th</sup> December.

**(B) Low pressure area over Southeast Bay of Bengal & adjoining East Equatorial Indian Ocean**

The **Low Pressure Area** over Southeast Bay of Bengal & adjoining East Equatorial Indian Ocean persists over the same region at 0830 hours IST of today, the 15<sup>th</sup> December. It is likely to move gradually westwards and become **Well Marked Low Pressure Area** over the same region during next 12 hours. Thereafter, it would continue to move westwards and maintain its intensity over South Bay of Bengal till morning of 17<sup>th</sup> December 2022.

**Warnings:**

**(i) Heavy Rainfall Warning:**

Light to moderate rainfall at many places with heavy rainfall at isolated places is very likely over Andaman & Nicobar Islands on 15<sup>th</sup> and 16<sup>th</sup> December, 2022.

**(ii) Wind warning:**

- ❖ **Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph** is very likely over south Andaman Sea on 15<sup>th</sup> December.
- ❖ **Squally wind speed reaching 35-45 kmph gusting to 55 kmph** is likely over Southeast Bay of Bengal till 16<sup>th</sup> December.
- ❖ **Squally wind speed reaching 35-45 kmph gusting to 55 kmph** is likely to prevail over Southwest Bay of Bengal on 16<sup>th</sup> and 17<sup>th</sup> December

**(iii) Sea condition: Sea condition is likely to be rough over**

- ❖ South Andaman Sea on 15<sup>th</sup> December.
- ❖ Southeast Bay of Bengal till 16<sup>th</sup> December.
- ❖ Southwest Bay of Bengal on 16<sup>th</sup> and 17<sup>th</sup> December.

**(iv) Fishermen Warning (warning graphics enclosed)**

Fishermen are advised not to venture into:

- ❖ South Andaman Sea on 15<sup>th</sup> December.
- ❖ Southeast Bay of Bengal till 16<sup>th</sup> December.
- ❖ Southwest Bay of Bengal on 16<sup>th</sup> and 17<sup>th</sup> December.

**Both the systems are under continuous surveillance and the next message will be issued at 1430 hours IST of today, the 15<sup>th</sup> December, 2022.**

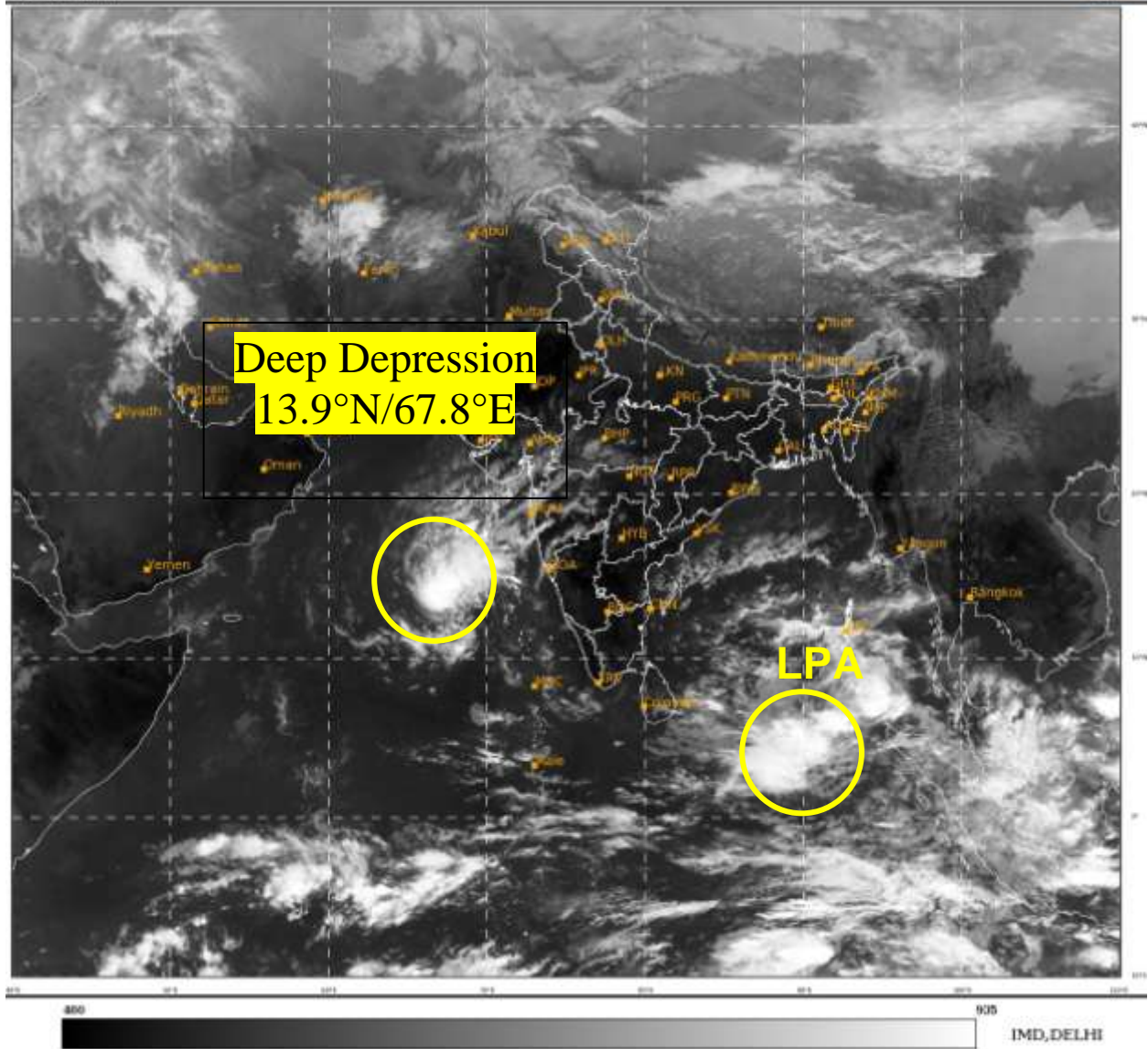
**(M. SHARMA)**  
**Scientist D, Cyclone Warning Division, New Delhi**

*Copy to: ACWC Mumbai/ ACWC Chennai/ /CWC Ahmedabad/ CWC Thiruvananthapuram/MC Goa*

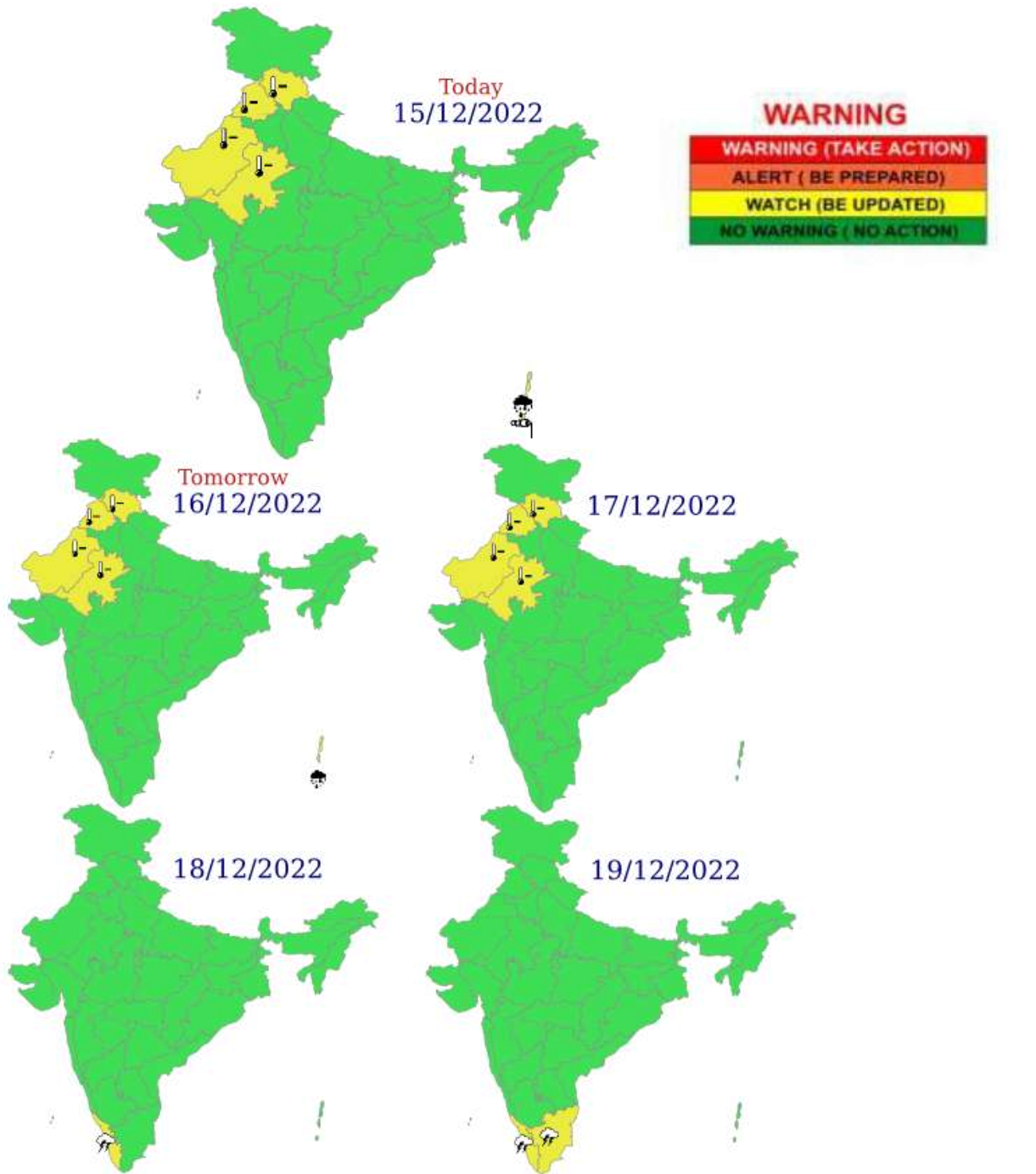
**LEGEND: Heavy Rainfall:** 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm  
**Most Places:** more than 76% of total stations, **Isolated Places:** Less than 25% of total

SAT : INSAT-3D IMG  
IMG\_TIR1 10.8 um  
LIC Mercator

15-12-2022/(0600 to 0626) GMT  
15-12-2022/(1130 to 1156) IST



LPA – Low Pressure Area



**WARNING**

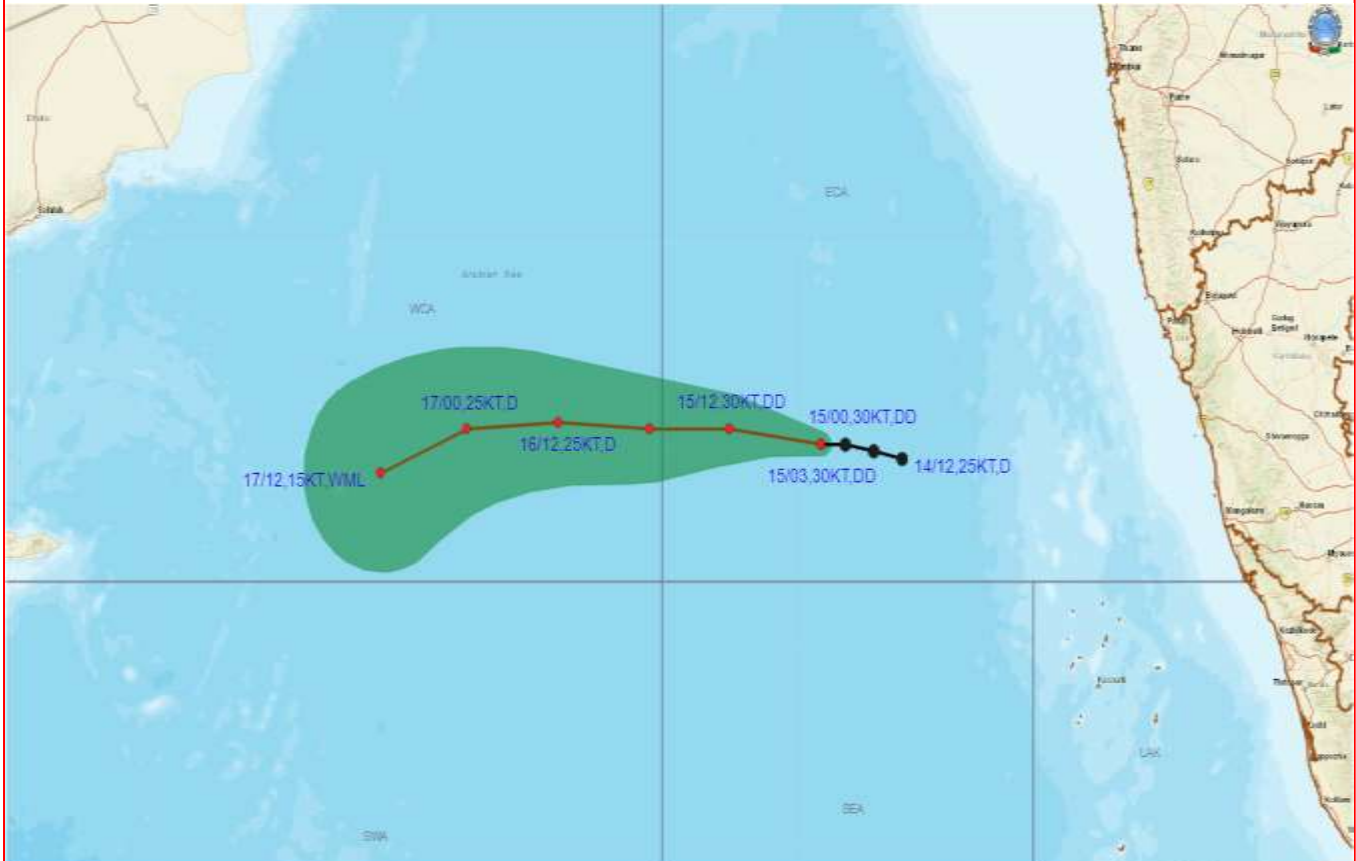
- WARNING (TAKE ACTION)
- ALERT ( BE PREPARED)
- WATCH (BE UPDATED)
- NO WARNING ( NO ACTION)

- |  |  |  |  |
|--|--|--|--|
|  Heavy Rain   |  Heavy Snow |  Thunderstorm |  Dust Storm   |
|  Strong Winds |  Visibility |  Cyclone      |  Squall/ Hail |
|  Frost        |  Cold Wave  |  Heat Wave    |  Sea State    |





## OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA BASED ON 0300 UTC OF 15<sup>TH</sup> DECEMBER, 2022



**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 ( $\geq$  120 KT)**


 **LESS THAN 34 KT**

 **34-47 KT**

  **$\geq$  48 KT**

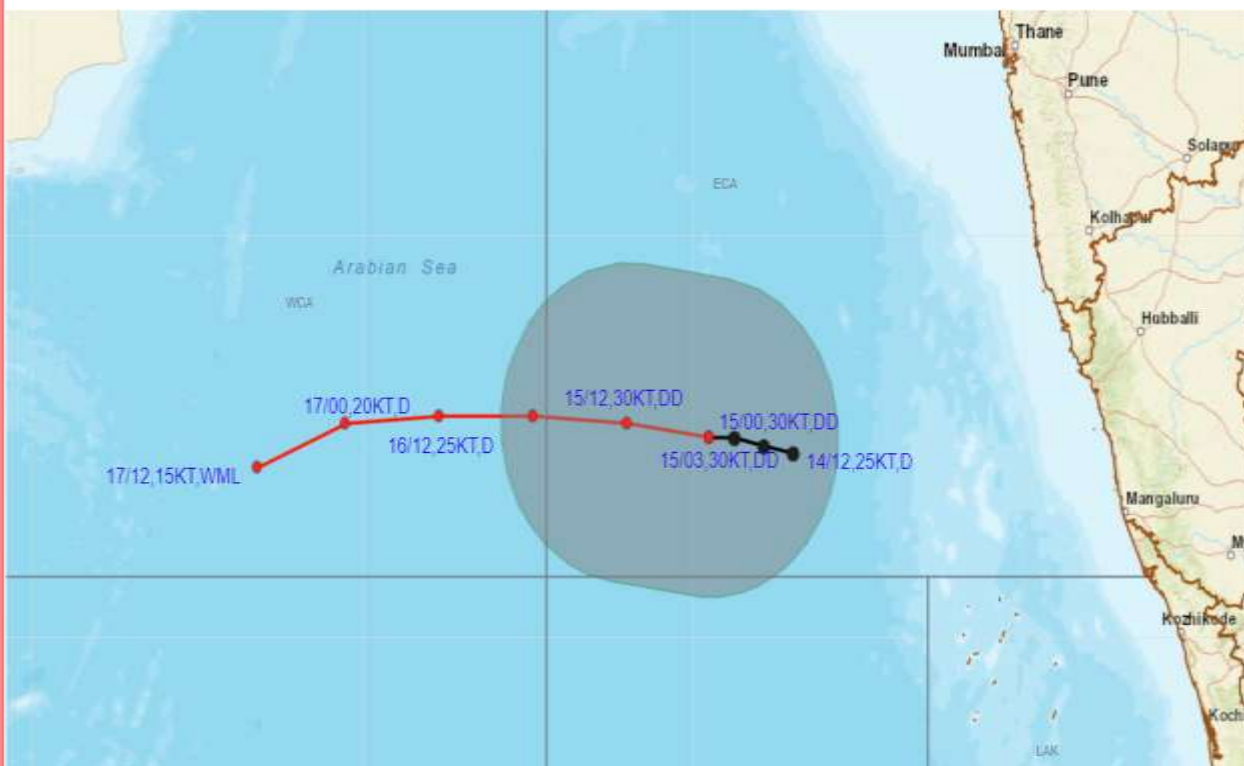
 **OBSERVED TRACK**

 **FORECAST TRACK**

 **CONE OF UNCERTAINTY**



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA BASED ON 0300 UTC OF 15<sup>TH</sup> DECEMBER, 2022



**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 (≥ 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- ≥ 64 KT (≥118 KMPH)

**IMPACT OVER THE SEA**

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

## Fishermen warning graphics

**Day 1: 15.12.2022/11:30AM to 16.12.2022/05:30AM**



**Day 2: 16.12.2022/05:30AM to 17.12.2022/05:30AM**



**Day 3: 17.12.2022/05:30AM to 18.12.2022/05:30AM**



**Day 4: 18.12.2022/05:30AM to 19.12.2022/05:30AM**



**Day 5: 19.12.2022/05:30AM to 20.12.2022/05:30AM**



Squally WX with wind speed 40-45 kmph gusting to 55 kmph

Squally wind speed 45-55 kmph gusting to 65 kmph

Squally wind speed 55-65 kmph gusting to 75 kmph

**Fishermen are advised not to venture into the marked areas.**



**Probability of exceedance of maximum sustained winds  $\geq 45$  kmph**



Probability of exceedance	
	Low (1-33%)
	Moderate (34-67%)
	High (68-100%)