



India Meteorological Department
(Ministry of Earth Sciences)

NATIONAL BULLETIN NO. 04 (ARB/03/2022)

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

(A) Deep Depression over eastcentral and adjoining southeast Arabian Sea

Depression over Eastcentral and adjoining Southeast Arabian Sea moved west-northwestwards with a speed of 09 kmph during past 06 hours, **intensified into a Deep Depression** and lay centered at 0530 hrs IST of today, the 15th December 2022 near latitude 13.9°N and longitude 68.2°E about 580 km west-northwest of Aminidivi (Lakshadweep), about 630 km west-southwest of Panjim (Goa) and 1550 km east-southeast of Salalah (Oman).

It is very likely to move west-northwestwards over Eastcentral Arabian Sea away from Indian coast and weaken gradually during next 48 hours.

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
15.12.22/0530	00	13.9/68.2	50-60 gusting to 70	Deep Depression
15.12.22/1730	12	14.1/66.6	50-60 gusting to 70	Deep Depression
16.12.22/0530	24	14.2/65.2	45-55 gusting to 65	Depression
16.12.22/1730	36	14.3/63.7	40-50 gusting to 60	Depression
17.12.22/0530	48	14.4/62.1	35-45 gusting to 55	Depression
17.12.22/1730	60	14.4/60.4	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Heavy Rainfall warning: NIL as the depression is expected to move away from Indian coast.

(ii) Wind warning (warning graphics enclosed):

- **Lakshadweep Area: Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph** till 15th noon and decrease gradually thereafter.
- **Southeast Arabian Sea: Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** till 15th evening and decrease gradually thereafter.
- **Eastcentral Arabian Sea: Squally weather with wind speed reaching 50-60 kmph gusting to 70 kmph** prevailing around the system center and is likely to maintain till 16th morning. It will gradually decrease thereafter becoming 40-50 kmph gusting to 60 kmph by 16th evening.
- **Westcentral Arabian Sea: Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph** prevailing over Westcentral Arabian Sea. It is likely to become 45-55 kmph gusting to 65 kmph during 15th evening to 16th December morning. It will decrease gradually thereafter becoming 35-45 kmph gusting to 55 kmph by 16th evening.
- **Southwest Arabian Sea: Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph prevailing over the region** and likely to become 40-50 kmph gusting to 60 kmph during 16th morning to 17th December morning.

(iii) Sea Condition

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

(iv) Fishermen Warning:

Fishermen are advised not to venture into

- ❖ **Southeast Arabian Sea** till 15th December.
- ❖ **Eastcentral Arabian Sea** till 17th morning.
- ❖ **Westcentral & Southwest Arabian Sea** till 17th 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 areas of East Equatorial Indian Ocean and South Andaman Sea now lies over Southeast Bay of Bengal & adjoining East Equatorial Indian Ocean. 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 17th December 2022.

Warnings:

(i) Wind warning:

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

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

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

(iv) Fishermen Warning (warning graphics enclosed)

Fishermen are advised not to venture into:

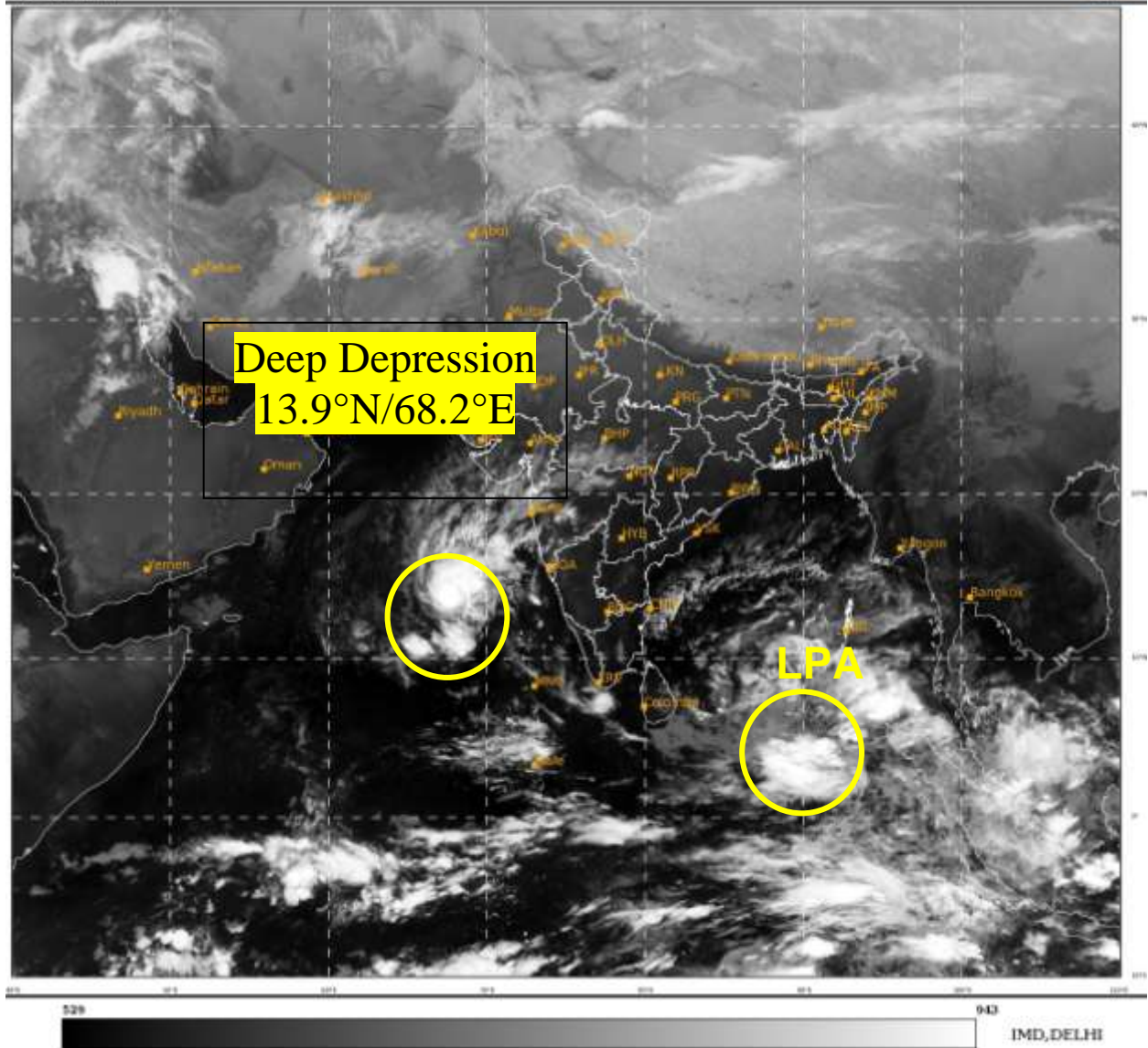
- ❖ South Andaman Sea on 15th December.
- ❖ Southeast Bay of Bengal till 16th December.
- ❖ Southwest Bay of Bengal on 16th and 17th December.

Both the systems are under continuous surveillance and the next message will be issued at 1130 hours IST of today, the 15th December, 2022.

(RK JENAMANI)
Scientist F, Cyclone Warning Division, New Delhi

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

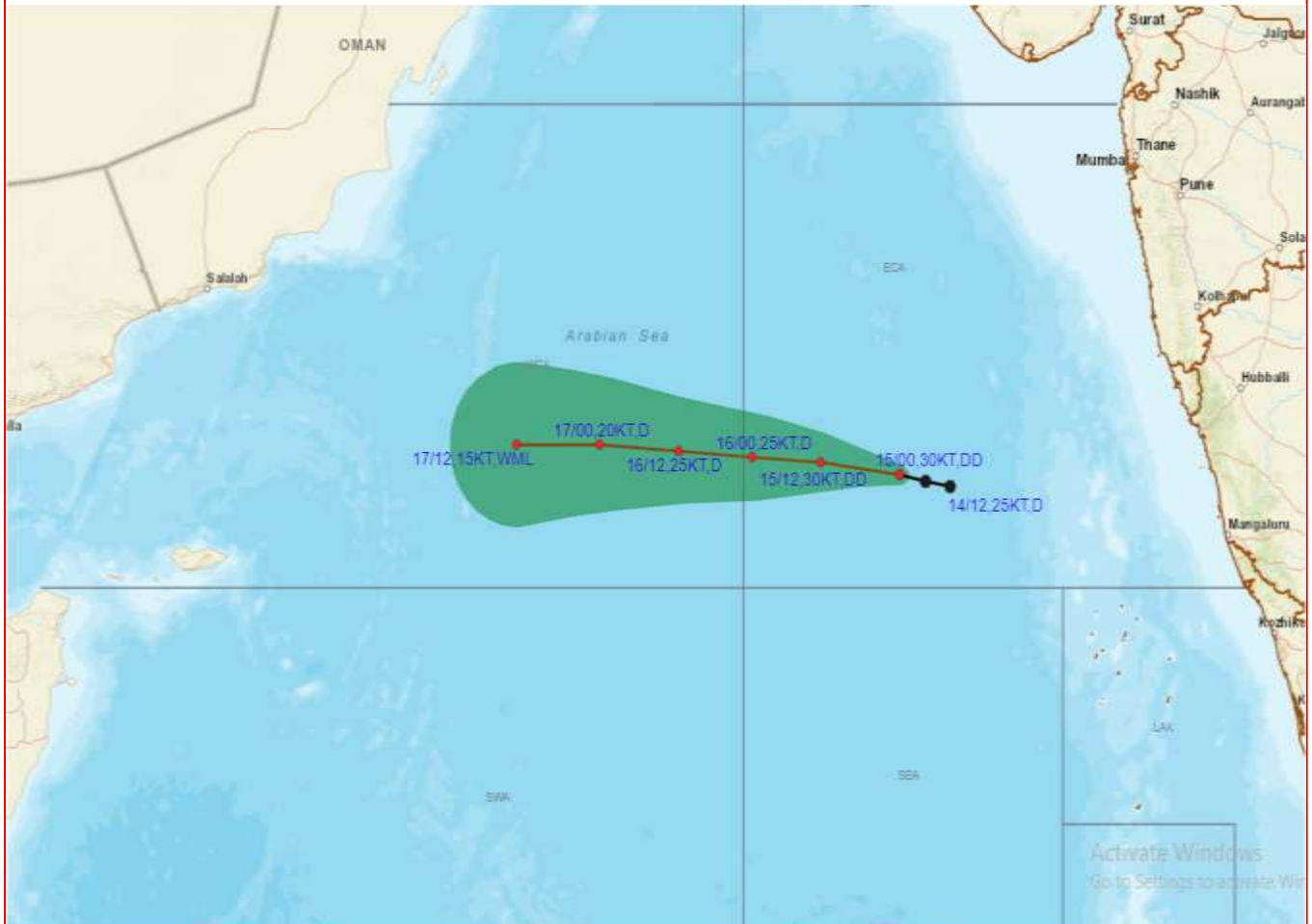
LEGEND: Heavy Rainfall: 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm
Most Places: more than 76% of total stations, **Isolated Places:** Less than 25% of total



LPA – Low Pressure Area



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0000 UTC OF 15TH DECEMBER, 2022

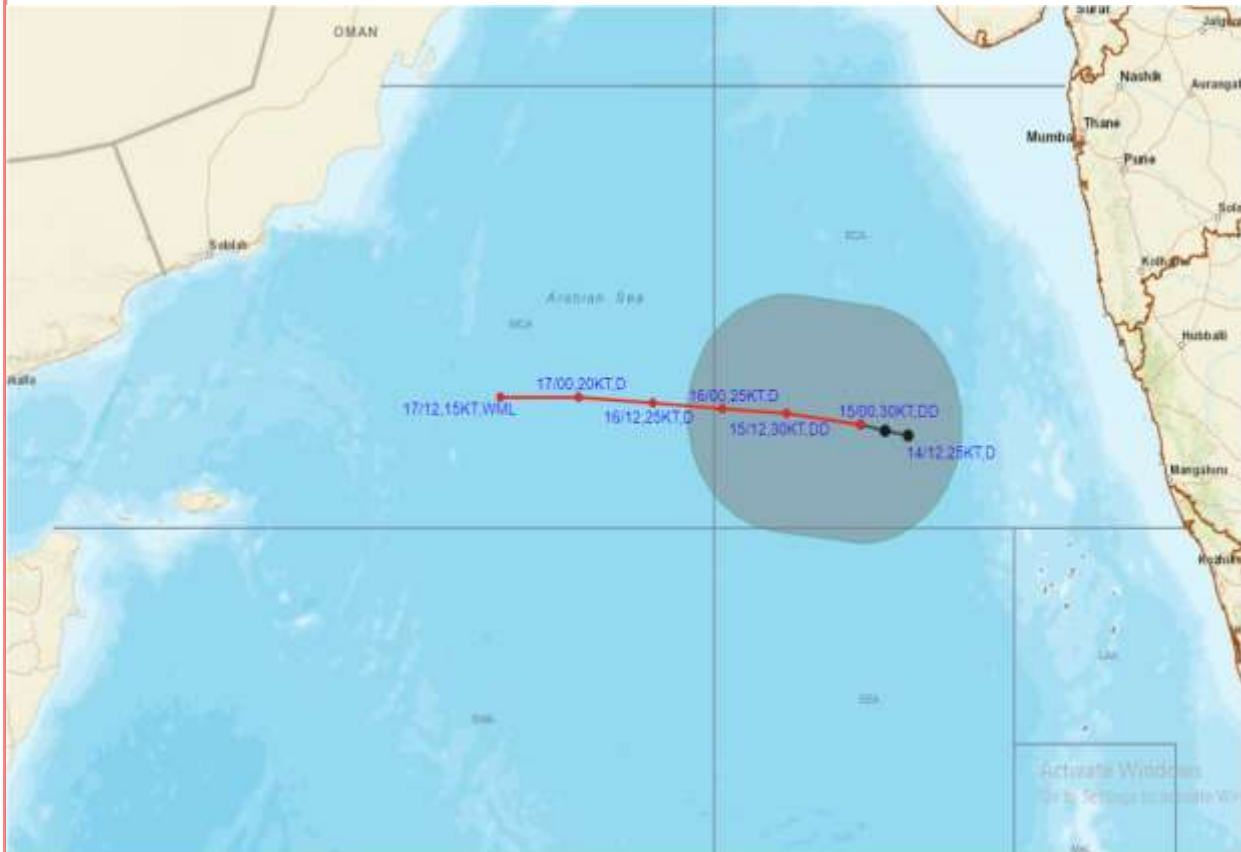


DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 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 DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0000 UTC OF 15TH 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)

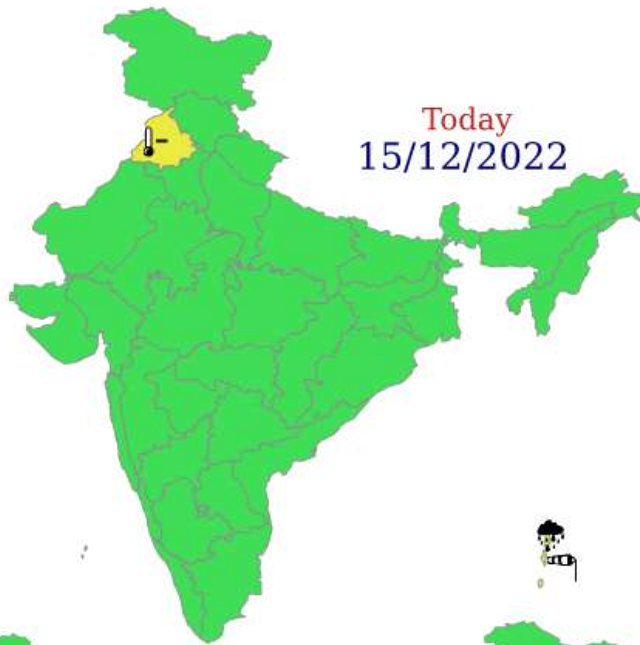
■ 34-49 KT (62-91 KMPH)

■ 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



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

Fishermen warning graphics



	Squally WX with wind speed 35-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

Probability of exceedance of maximum sustained winds ≥ 45 kmph

Day 1: 14.12.2022/11:30AM to 15.12.2022/05:30AM



Day 2: 15.12.2022/05:30AM to 16.12.2022/05:30AM



Day 3: 16.12.2022/05:30AM to 17.12.2022/05:30AM



Day 4: 17.12.2022/05:30AM to 18.12.2022/05:30AM



Day 5: 18.12.2022/05:30AM to 19.12.2022/05:30AM



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