



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

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**Sub: Depression over northeast Arabian Sea & adjoining Kutch.**

Latest satellite & Radar imageries and meteorological observations indicate that yesterday's well marked low pressure area over south Gujarat region & adjoining Gulf of Khambhat moved west-northwestwards and emerged into Gulf of Kutch, concentrated into a Depression and lay centred at 0530 hrs IST of today, the 30<sup>th</sup> September, 2021, over northeast Arabian Sea & adjoining Kutch, near latitude 22.7°N and longitude 69.5°E, about 50 km east-northeast of Devbhoomi Dwarka (Gujarat), 90 km east-southeast of Naliya (Gujarat) and 340 km east-southeast of Karachi (Pakistan).

It is very likely to move west-northwestwards and intensify into a Deep Depression over northeast Arabian Sea off north Gujarat coast during next 12 hours. Then it is very likely to move further west-northwestwards and intensify into a Cyclonic Storm during the subsequent 24 hours. Thereafter it is likely to continue to move west-northwestwards towards Pakistan – Makran coasts, moving away from the Indian coast.

Forecast track and intensity are given in the following table:

| <b>Date/Time(IST)</b> | <b>Position<br/>(Lat. °N/ long. °E)</b> | <b>Maximum sustained surface<br/>wind speed (Kmph)</b> | <b>Category of cyclonic<br/>disturbance</b> |
|-----------------------|---|--|---|
| 30.09.21/0530         | 22.7/69.5                               | 45-55 gusting to 65                                    | Depression                                  |
| 30.09.21/1730         | 23.0/67.6                               | 50-60 gusting to 70                                    | Deep Depression                             |
| 01.10.21/0530         | 23.3/66.4                               | 60-70 gusting to 80                                    | Cyclonic Storm                              |
| 01.10.21/1730         | 23.7/64.9                               | 80-90 gusting to 100                                   | Cyclonic Storm                              |
| 02.10.21/0530         | 24.2/63.6                               | 90-100 gusting to 110                                  | Severe Cyclonic Storm                       |

## **Warnings:**

### **(i) Rainfall**

- 30<sup>th</sup> Sept.: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places very likely over Saurashtra & Kutch and heavy falls at isolated places over Gujarat region and north Konkan.

### **(ii) Wind warning**

- Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over northeast Arabian Sea and along & off south Gujarat coast and 40 – 50 kmph gusting to 60 kmph over east-central Arabian Sea along & off north Maharashtra coast during next 12 hours.
- It would gradually increase thereafter, becoming squally wind speed reaching 50-60 kmph gusting to 70 kmph over northeast Arabian Sea and along & off Gujarat coast and 45 – 55 kmph gusting to 65 kmph over east-central Arabian Sea along & off north Maharashtra coast from the evening of today, the 30<sup>th</sup> September.
- It would further increase becoming Gale wind speed reaching 90-100 kmph gusting to 110 kmph over northeast & adjoining northwest Arabian Sea & along & off Pakistan – Makran coasts, 70-80 kmph gusting to 90 kmph along & off Gujarat coast and squally wind speed reaching 40 – 50 kmph gusting to 60 kmph over central Arabian Sea from the evening of 1<sup>st</sup> October.

### **(iii) Sea condition**

- Sea condition will be rough to very rough over northeast Arabian Sea and adjoining east-central Arabian Sea & along & off Gujarat – north Maharashtra coasts till today, the 30<sup>th</sup> Sept. 2021 evening.
- It will gradually increase thereafter, becoming 'High' over Northeast Arabian Sea and along & off Gujarat coast and adjoining eastcentral Arabian Sea and along and off Pakistan coast and rough to very rough along & off north Maharashtra coast on 1<sup>st</sup> October 2021.
- Sea condition will be 'High to very High' over north Arabian Sea and along and off north Pakistan – Makran coasts and 'High' over adjoining central Arabian Sea, very rough to High along & off north Gujarat coast on 2<sup>nd</sup> October.

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

- Fishermen are advised not to venture into north & adjoining central Arabian Sea and along & off Gujarat & north Maharashtra coasts from 30<sup>th</sup> September till 2<sup>nd</sup> October 2021.

### **(v) EXPECTED IMPACT & ACTION SUGGESTED**

- As the system is expected to move away from the Indian coast, apart from the impact associated with the very heavy rain events over Gujarat during next 24 hours, no further impact is likely over the Indian Mainland.
- However, Fishermen as well as Mariners are advised to avoid the Sea areas specified above.
- Also the On-shore & Off-shore installations located off Gujarat coast are advised to stall operations on 30th September & 1st October.
- Tourism & recreational activities along & off Gujarat coast also may be suspended on 30th Sept. & 1st October 2021.

The next bulletin will be issued at 1130 hrs IST of 30<sup>th</sup> September, 2021.

**(Sunitha Devi S.)  
Scientist-F, RSMC, New Delhi**

*Copy to: ACWC Mumbai/ CWC Ahmedabadr/MC Goa/CWC Thiruvananthapuram*

**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 stations



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER NORTHEAST ARABIAN SEA AND ADJOINING KUTCH BASED ON 0000 UTC OF 30TH SEPTEMBER, 2021**



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)

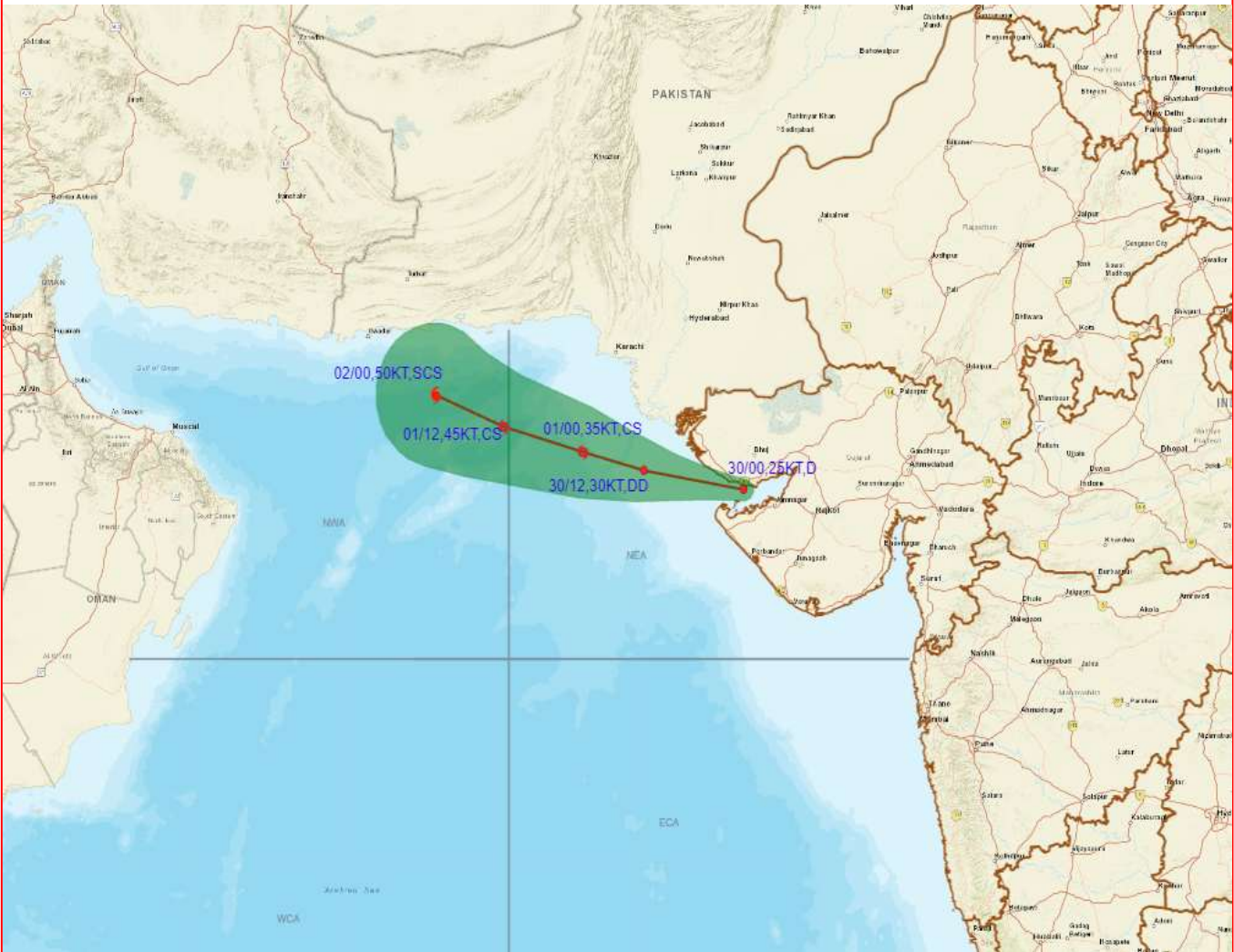
- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- ≥ 64 KT (≥118 KMPH)

**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 |

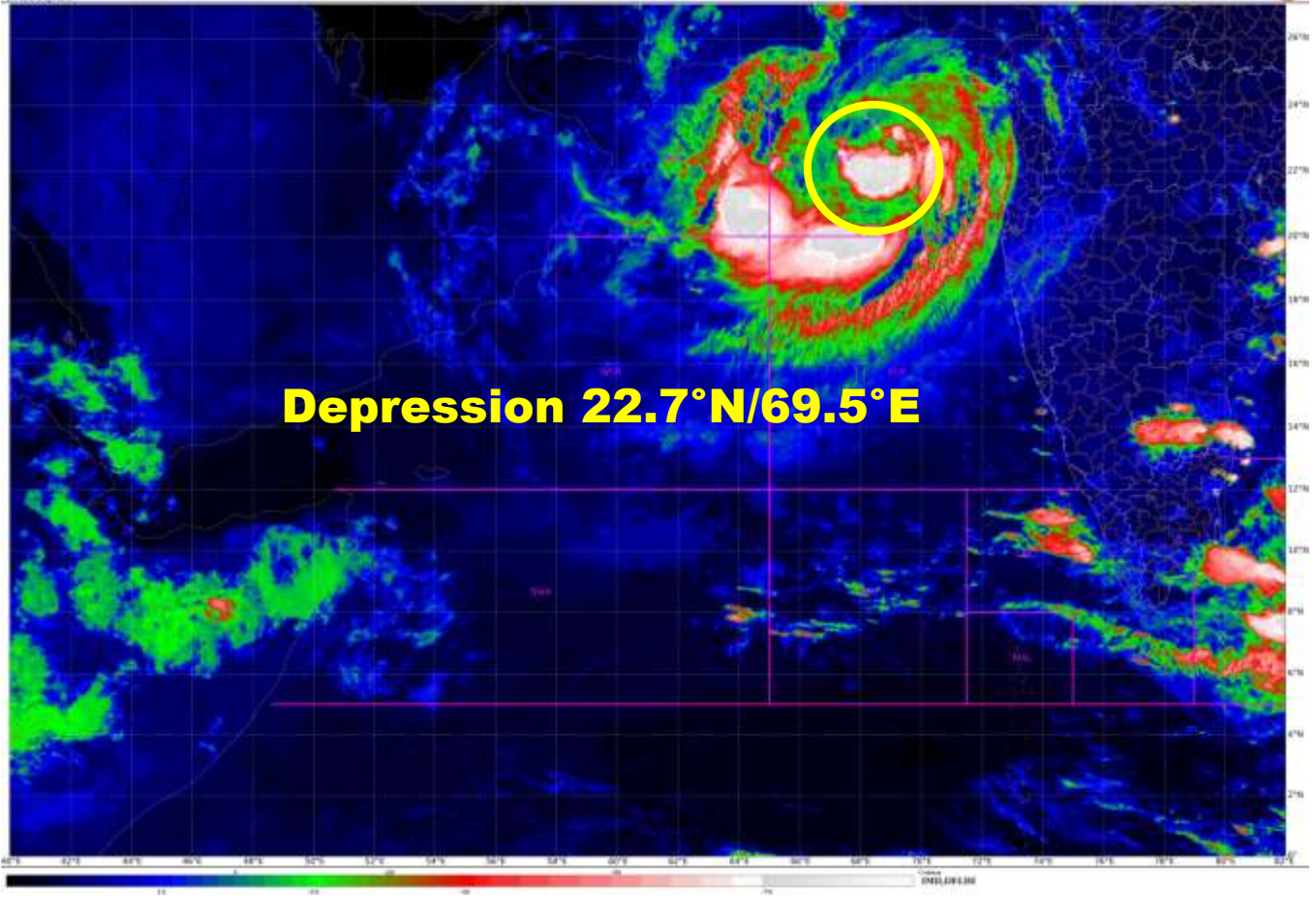


## OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHEAST ARABIAN SEA AND ADJOINING KUTCH BASED ON 0000 UTC OF 30TH SEPTEMBER, 2021



**DATE/TIME IN UTC**  
**IST=UTC + 0530**  
**L: LOW PRESSURE AREA**  
**WML: WELL MARKED LOW PRESSURE AREA**  
**D: DEPRESSION (17-27 KT)**  
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**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**



**Depression 22.7°N/69.5°E**

# Meteorological Sub-division level heavy rainfall warning

