



Government of India  
Ministry of Earth Sciences  
Earth System Science Organisation



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India Meteorological Department

## PRESS RELEASE- 8

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### Sub: Deep depression over southwest Arabian Sea

Yesterday's well marked low pressure area over southwest and adjoining southeast Arabian Sea concentrated into a depression in the same afternoon (1430 hrs IST of 8<sup>th</sup> December). It moved west-northwestwards and intensified into a deep depression in the early morning (0530 hrs IST) of today, the 9<sup>th</sup> December, 2019. At 0830 hrs IST of today, it lay over southwest Arabian Sea near latitude 10.6°N and longitude 60.0°E, about 700 km east-southeast of Socotra Island (Yemen) and 1780 km west-northwest of Kochi (Kerala). It is very likely to weaken into a depression during next 12 hours.

It is very likely to move west-northwestwards during next 12 hours and west-southwestwards thereafter.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat.°N/ Long.°E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
09.12.19/0830	10.6/60.0	55-65 gusting to 75	Deep Depression
09.12.19/1130	10.7/59.1	50-60 gusting to 70	Deep Depression
09.12.19/1730	10.7/57.8	45-55 gusting to 65	Depression
09.12.19/2330	10.5/56.5	40-50 gusting to 60	Depression
10.12.19/0530	10.2/55.4	35-45 gusting to 55	Depression

### Warnings:

#### (i) Wind warning

- Squally weather (wind speed 55-65 kmph gusting to 75 kmph) is very likely to prevail over westcentral & adjoining southwest Arabian Sea during next 06 hours. It is likely to reduce becoming squally wind speed reaching 45-55 Kmph gusting to 65 Kmph by today evening for the subsequent 12 hours.
- It is likely to further decrease gradually, becoming 35-45 kmph gusting to 55 kmph over westcentral & adjoining southwest Arabian Sea by the morning of tomorrow, the 10<sup>th</sup> December, 2019.

#### (ii) Sea condition

- The Sea condition is very likely to be rough to very rough over westcentral and adjoining southwest Arabian Sea on 9<sup>th</sup> & 10<sup>th</sup> December, 2019.

#### (iii) Fishermen Warning

- The fishermen are advised not to venture into westcentral and adjoining southwest Arabian Sea on 9<sup>th</sup> & 10<sup>th</sup> December, 2019.

The system over southwest Arabian Sea is under continuous watch and the concerned disaster management authorities are being informed regularly.

Kindly visit [www.imd.gov.in](http://www.imd.gov.in), [www.rsmcnewdelhi.imd.gov.in](http://www.rsmcnewdelhi.imd.gov.in) and [www.mausam.imd.gov.in](http://www.mausam.imd.gov.in) for updates on the system.

Contact: Cyclone Warning Division, Office of the Director General of Meteorology,  
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Phone: (91) 11-24652484, FAX: (91) 11-24643128, 24623220, E-mail: [cwdhq2008@gmail.com](mailto:cwdhq2008@gmail.com), Website: [rsmcnewdelhi.imd.gov.in](http://rsmcnewdelhi.imd.gov.in)

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

The salient features of the climatology of cyclonic disturbances over the north Indian Ocean vis-a-vis the enhanced cyclonic activity during 2019 (Updated in view of the fresh depression over Arabian Sea on 8<sup>th</sup> December)

1. So far 12 cyclonic disturbances (CDs) developed over the north Indian Ocean (NIO) including 4 over the Bay of Bengal (BoB) and 8 over the Arabian Sea (AS) during the year 2019 against the normal of 12 CDs per year over the NIO.

2. The maximum of 18 CDs have been observed in a year over the north Indian Ocean during 1925 and 1975. Thus the current frequency of 12 CDs is still less than the maximum.

3. Year 2019 witnessed 8 cyclones (3 over BoB and 5 over AS) and 4 depressions/deep depressions (1 over BoB and 3 over AS). Out of 5 cyclones over the AS, 4 were severe & above intensity cyclones and out of 3 cyclones over BoB, 2 were severe & above intensity cyclones.

4. The maximum number of 10 cyclones developed over the north Indian Ocean during 1893 and 1930. The maximum number of 5 cyclones with 4 severe cyclones developed over Arabian Sea during 1902. Thus, the frequency of cyclones over north Indian Ocean during 2019 is still less than the maximum of 10 cyclones observed in past. The frequency of cyclones and severe cyclones over the Arabian Sea during the year 2019 as a whole matches the frequency during 1902.

5. Details of these CDs over the north Indian Ocean are listed below:

- i. Cyclonic Storm PABUK over Andaman Sea during 04-08 January
- ii. Extremely severe cyclonic storm FANI over the Bengal during 26 April-04 May
- iii. Very severe cyclonic storm VAYU over the Arabian Sea during 10-17 June
- iv. Deep depression over the Bay of Bengal during 06-12 August
- v. Very severe cyclonic storm HIKAA over the Arabian Sea during 22-25 September
- vi. Depression over the Arabian Sea during 29 September-01 October
- vii. Super Cyclonic Storm KYARR over eastcentral Arabian Sea during 24 Oct.-02 Nov.
- viii. Extremely Severe Cyclonic Storm MAHA over the Arabian Sea during 30 Oct.-07 Nov.
- ix. VSCS BULBUL over the Bay of Bengal during 05-11 November
- x. Cyclonic Storm PAWAN over the southwest Arabian Sea during 02-07 December
- xi. Deep depression over eastcentral Arabian Sea during 03-05 December
- xii. Depression over southwest Arabian Sea during 08 December-till date

5. Thus, the Arabian Sea has been more active during 2019 with the formation of 8 CDs against the normal of 1.7 CDs per year. Similarly, 5 cyclones have developed over Arabian Sea during 2019 against the normal of 1 per year. Considering the past data (1891-2018), the maximum of 6 CDs developed over the Arabian Sea in the year 1998 & 5 cyclones in

1902. Thus, the frequency of CDs over the Arabian Sea during 2019 so far exceeds previous record in 1998 and frequency of cyclones so far equals the previous record of 1902.

6. The year 2019 also witnessed development of more intense cyclones over the Arabian Sea, as out of 5 cyclones, there have been 1 super cyclonic storm (Kyarr), 1 extremely severe cyclonic storm (Maha), 2 very severe cyclonic storms (Vayu, Hikaa), and 1 cyclonic storm (Pawan).

7. The activity over the Bay of Bengal has been subdued this year as compared to Arabian Sea with the formation of only 3 cyclones (Pabuk, Fani, Bulbul) against the normal of 4 per year. Out of these, there were two severe cyclones (Fani & Bulbul) against the normal of 2 per year.

8. Comparing the post and pre-monsoon cyclone seasons, the post-monsoon cyclone season has been more active over the Arabian Sea and subdued over the Bay of Bengal with the formation of 5 CDs over the Arabian Sea against normal of 0.8 per year. The BoB witnessed development of 1 CD against normal of 3.5 per year during post monsoon season. Three cyclones formed over the AS against normal of 0.6 per year and 1 cyclone over the BOB against normal of 2.1 per year.

9. Thus, the frequency of CDs observed over the Arabian Sea during 2019 post monsoon season exceeds the past record of 1982 and 2011 when 4 CDs developed in the post monsoon season. It equals the past record of 1902 post monsoon season with formation of 3 cyclones including 2 severe cyclones.

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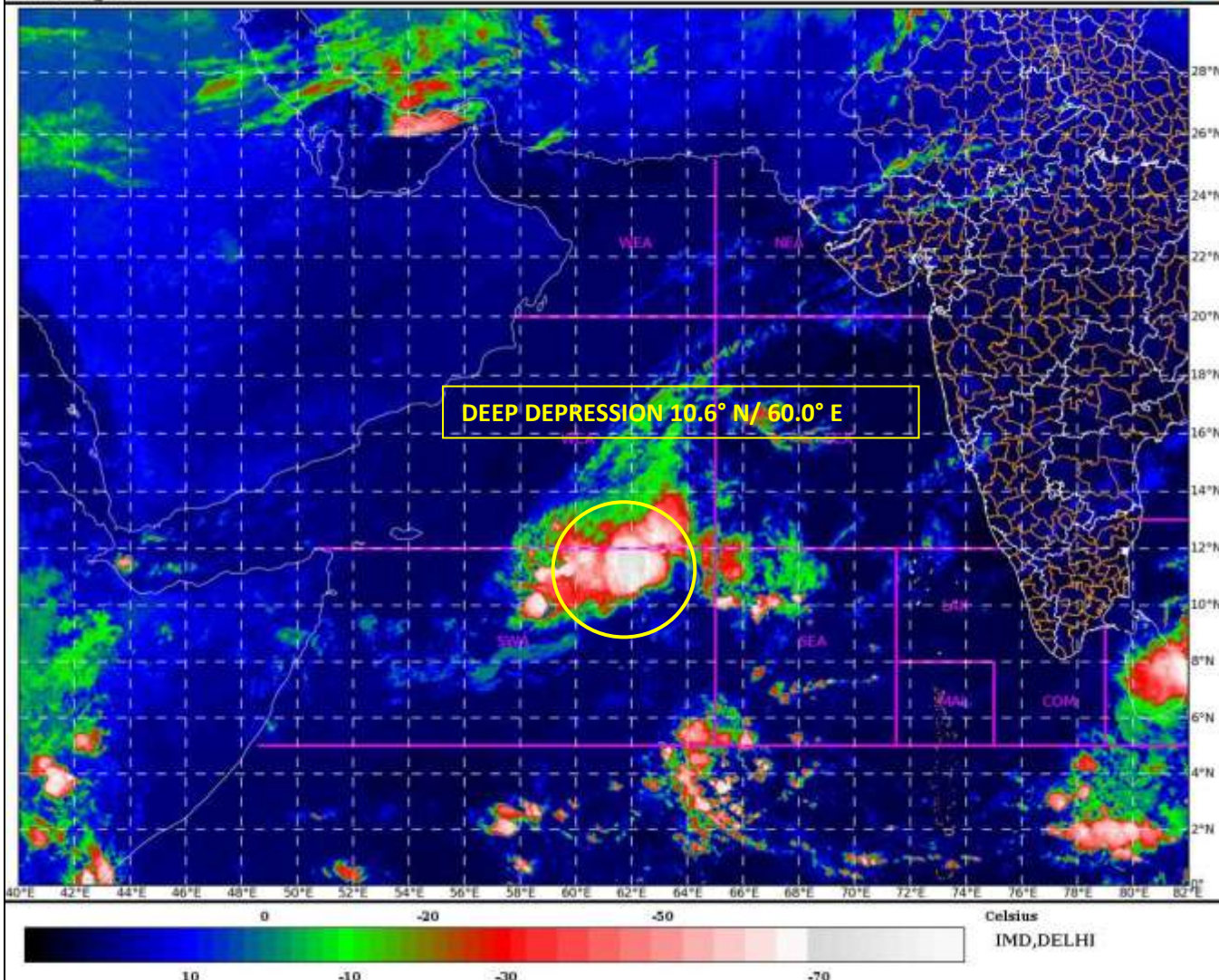
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SAT : INSAT-3DR IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN SEA

09-12-2019/(0345 to 0412) GMT  
09-12-2019/(0915 to 0942) IST



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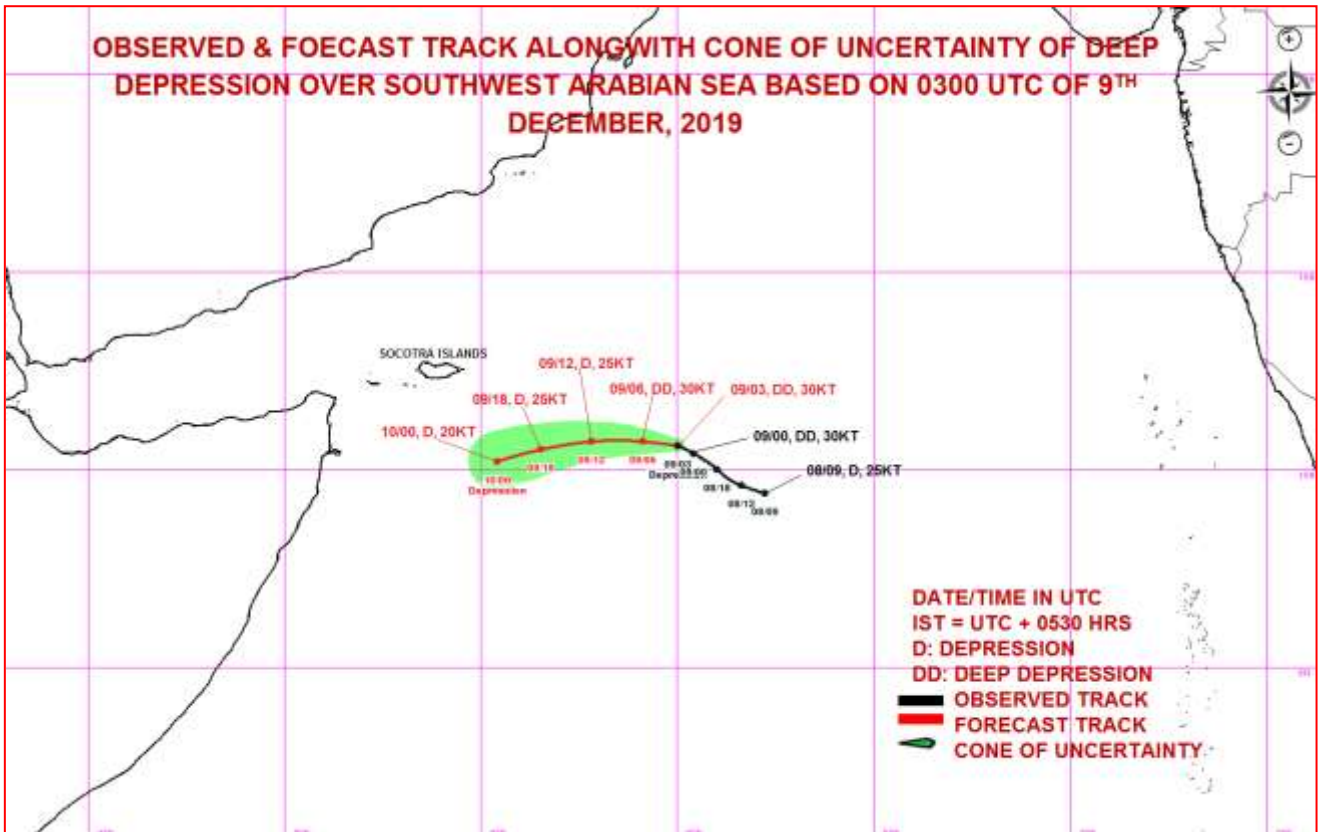
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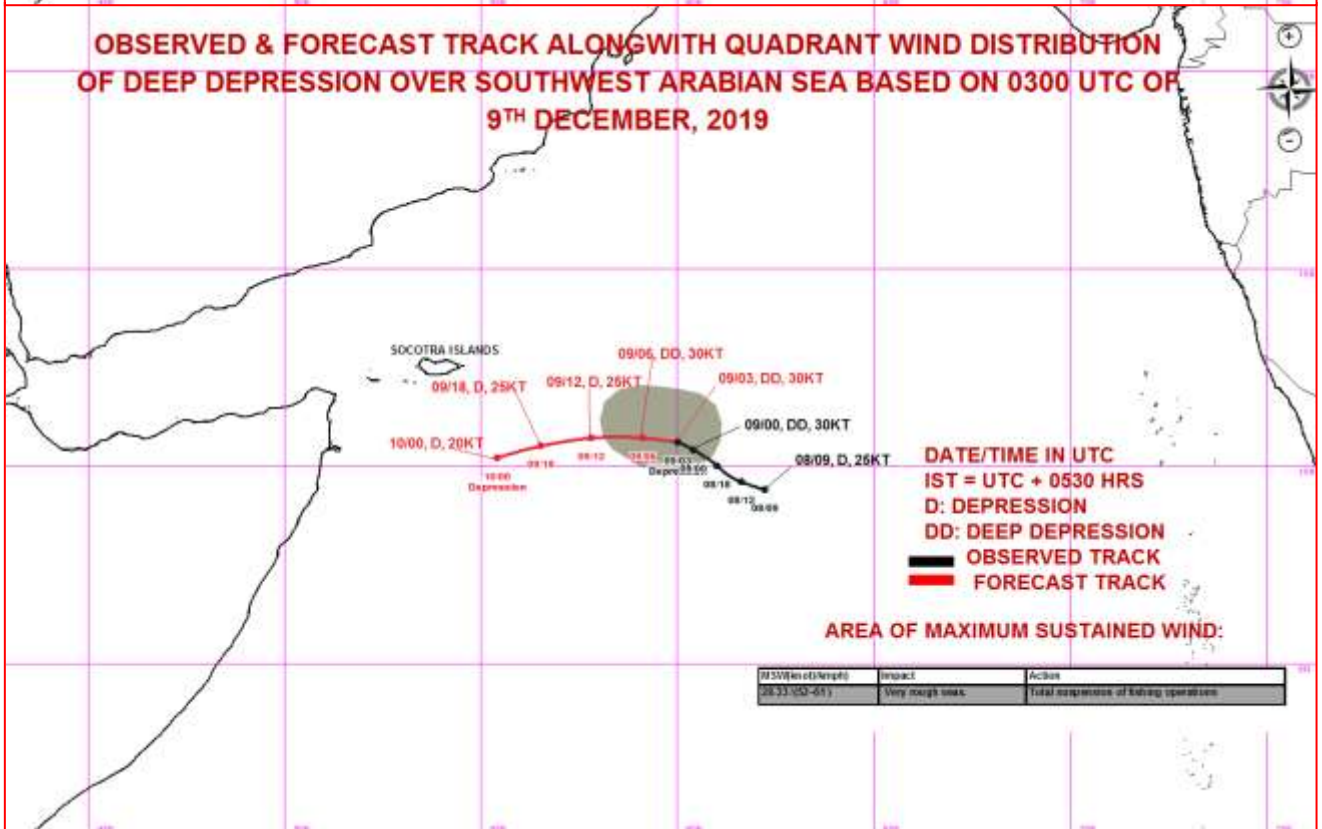
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**OBSERVED & FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER SOUTHWEST ARABIAN SEA BASED ON 0300 UTC OF 9<sup>TH</sup> DECEMBER, 2019**



**OBSERVED & FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER SOUTHWEST ARABIAN SEA BASED ON 0300 UTC OF 9<sup>TH</sup> DECEMBER, 2019**



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