



Government of India
Ministry of Earth Sciences
Earth System Science Organisation



Earth System Science Organisation
India Meteorological Department

PRESS RELEASE- 7

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**Sub: (a) Well marked low pressure area over southwest & adjoining southeast Arabian Sea
(b) Cyclonic Storm Pawan has become insignificant**

(a) Well marked low pressure area over southwest & adjoining southeast Arabian Sea

Yesterday's low pressure area over southeast Arabian Sea and adjoining equatorial Indian Ocean lay as a well marked low pressure area over southeast & adjoining southwest Arabian Sea in the early morning (0530 hrs IST) of today, the 8th December, 2019. It lay as a well marked low pressure area over southwest and adjoining southeast Arabian Sea in the morning (0830 hrs IST) of today. It is likely to move west-northwestwards and concentrate into a depression during next 12 hours.

Warnings:

8th December:

- ❖ Squally weather (wind speed 40-50 kmph gusting to 60 kmph) is very likely to prevail over southeast Arabian Sea and adjoining southwest and adjoining central Arabian Sea.
- ❖ Sea condition is likely to be rough to very rough over these areas.
- ❖ Fishermen are advised not to venture into these areas.

9th December:

- ❖ Squally weather (wind speed will gradually increase becoming 50-60 kmph gusting to 70 kmph) very likely to prevail over westcentral and adjoining south Arabian Sea
- ❖ Sea condition is likely to be rough to very rough over the above region.
- ❖ Fishermen are advised not to venture into these areas.

10th December:

- ❖ Squally weather (wind speed 45-55 kmph gusting to 65 kmph) very likely to prevail over westcentral Arabian Sea
- ❖ Sea condition is likely to be rough to very rough over the above region.
- ❖ Fishermen are advised not to venture into these areas.

(b) Cyclonic Storm Pawan has become insignificant

Yesterday's deep depression over coastal Somalia and neighborhood moved westwards, weakened into a depression in the same afternoon (1430 hrs IST) and into a well marked low pressure area over north Somalia & adjoining Ethiopia in the same evening (1730 hrs IST of 7th December). Moving further westwards, it lay as a low pressure area over Ethiopia in the early morning of today, the 7th December and became insignificant thereafter. Observed track of the system during 2nd-7th December is presented in Fig.1. **This is last update in association with this cyclonic storm Pawan.**

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

Kindly visit www.imd.gov.in, www.rsmcnewdelhi.imd.gov.in and www.mausam.imd.gov.in for updates on the system.

Contact: Cyclone Warning Division, Office of the Director General of Meteorology,
India Meteorological Department, Ministry of Earth Sciences.

Phone: (91) 11-24652484, FAX: (91) 11-24643128, 24623220, E-mail: cwdhq2008@gmail.com, Website: 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)

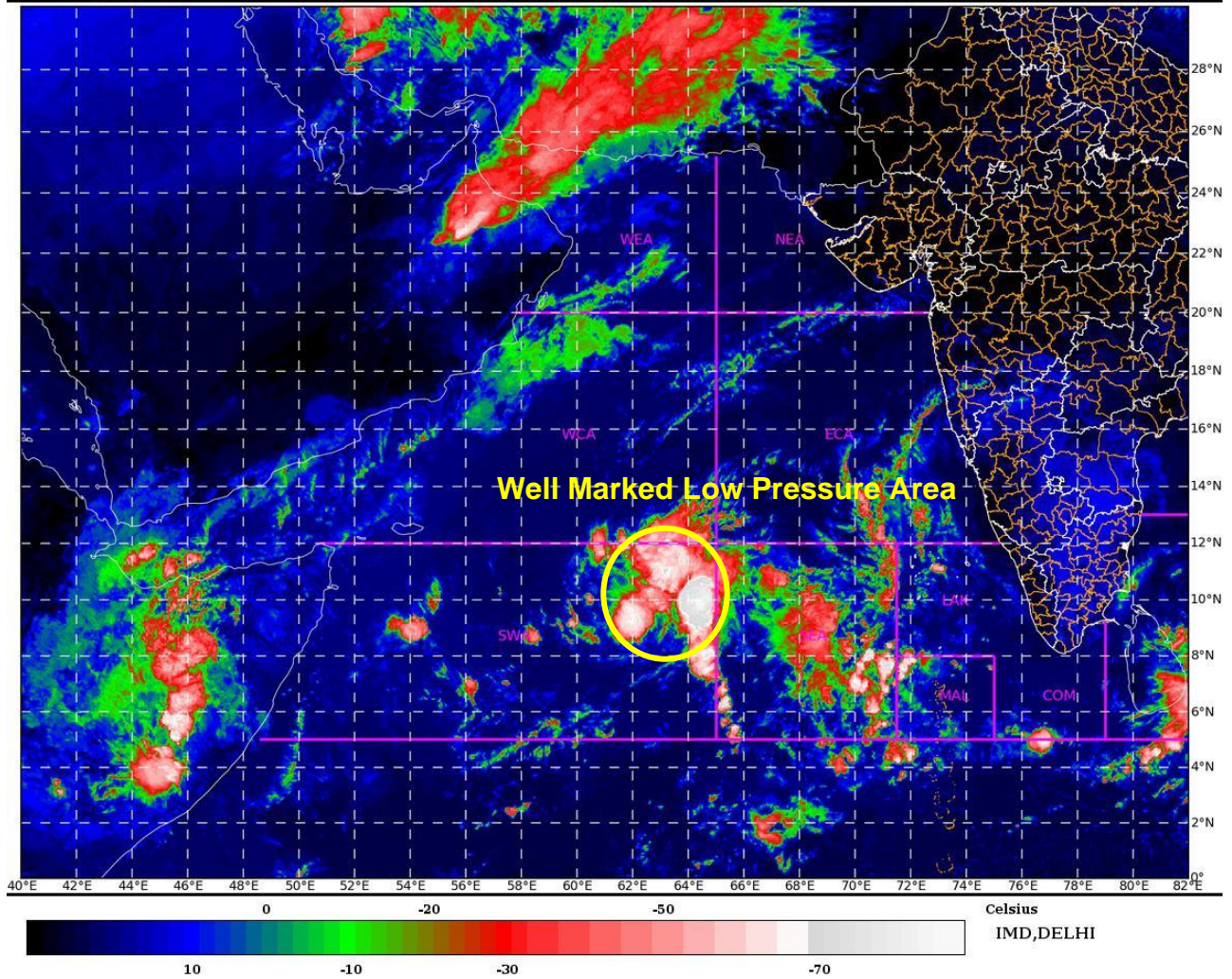
1. So far 11 cyclonic disturbances (CDs) developed over the north Indian Ocean (NIO) including 4 over the Bay of Bengal (BoB) and 7 over the Arabian Sea (AS) during the year 2019 against the normal of 12 CDs per year over the NIO.
2. It includes 8 cyclones (3 over BoB and 5 over AS) and 3 depressions/deep depressions (1 over BoB and 2 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.
3. The maximum number of 10 cyclones developed over north Indian Ocean during 1893, 1926, 1930 and 1976. The maximum number of 5 cyclones with 4 severe cyclones developed over Arabian Sea during 1902.
4. Details of these CDs 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, (AS)
 - 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 2nd December- till date
 - xi. Deep depression over eastcentral Arabian Sea during 3rd December, (AS)- till date
5. Thus, the Arabian Sea has been more active during 2019 with the formation of 7 CDs against the normal of 1.7 CDs per year. Similarly, 5 cyclones have developed over Arabian Sea 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 cyclones over the Arabian Sea during 2019 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 cyclonic storm (Pawan), 2 very severe cyclonic storms (Vayu, Hikaa), 1 extremely severe cyclonic storm (Maha) and 1 super cyclonic storm (Kyarr).
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 **4 CDs over the Arabian Sea** against normal of 1 per year and 1 over Bay of Bengal against normal of 3.5 per year during post monsoon season. It included **3 cyclones over the AS** against normal of 1 per year and 1 cyclone over the BOB against normal of 2 per year.
9. Thus, the frequency of CDs observed over the Arabian Sea during 2019 post monsoon season equals the past record of 1982 and 2011 when 4 CDs developed in the post monsoon season. It also equals the past record of 1902 post monsoon season with formation of 3 cyclones including 2 severe cyclones.

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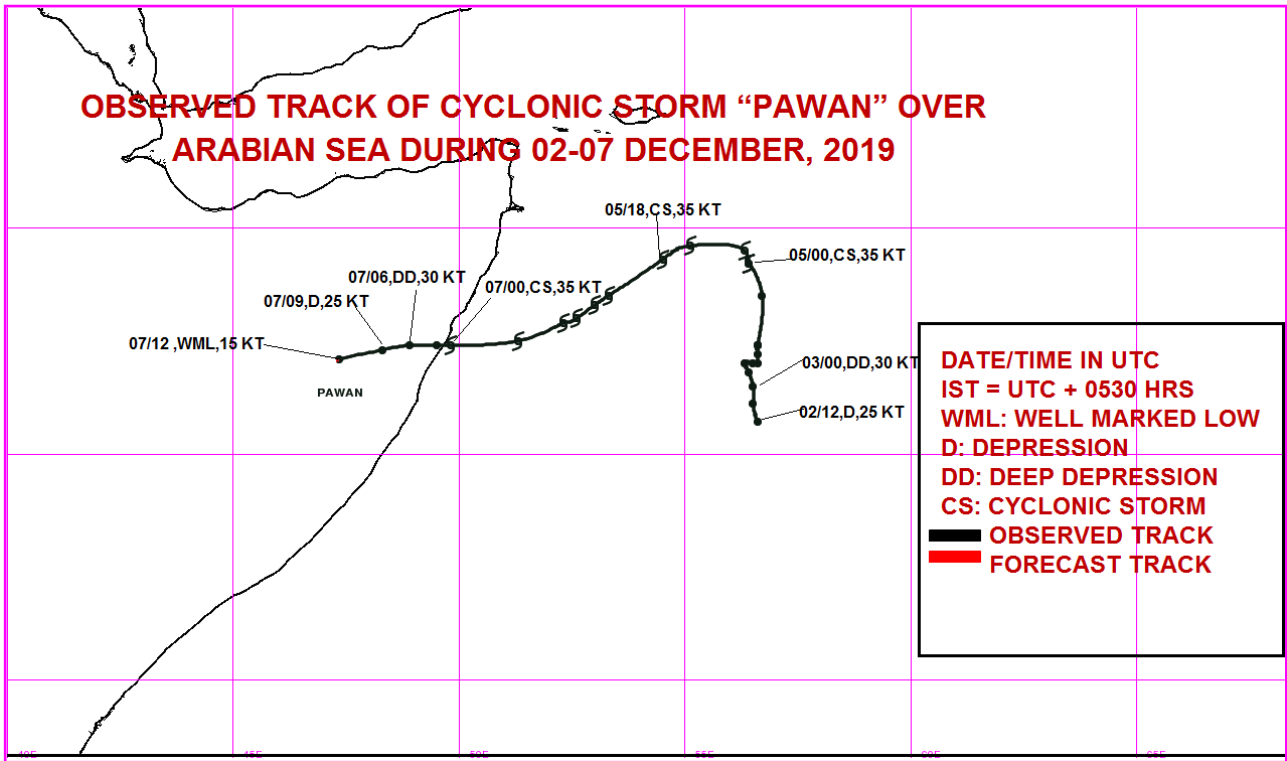
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OBSERVED TRACK OF CYCLONIC STORM "PAWAN" OVER ARABIAN SEA DURING 02-07 DECEMBER, 2019



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