



Government of India
Ministry of Earth Sciences
Earth System Science Organisation



Earth System Science Organisation
India Meteorological Department

PRESS RELEASE- 4

Time of issue: 1230 hours IST

Dated: 05-12-2019

**Sub: (a) Cyclonic Storm “Pawan” (pronounced as Pavan) over southwest Arabian Sea and
(b) Depression over eastcentral Arabian Sea**

(a) Cyclonic Storm “Pawan” (pronounced as Pavan) over southwest Arabian Sea

Yesterday’s deep depression over southwest Arabian Sea moved nearly northwards and intensified into the cyclonic storm “PAWAN” (pronounced as PAVAN) in the early morning (0530 hrs IST) of today, the 5th December, 2019 over the same region. Remaining practically stationary thereafter, it lay centred at 0830 hrs IST of today near latitude 09.2°N and longitude 56.4°E over southwest Arabian Sea, about 470 km south-southeast of Socotra (Yemen) and 820 km east-southeast of Bosaso (Somalia).

It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move northwestwards for some more time, then re-curve west-southwestwards and cross Somalia coast as a depression between Latitudes 07° & 08°N during 07th December morning.

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
05.12.19/0830	9.2/56.4	65-75 gusting to 85	Cyclonic Storm
05.12.19/1130	9.3/56.0	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.1/55.1	60-70 gusting to 80	Cyclonic Storm
05.12.19/2330	8.8/54.2	60-70 gusting to 80	Cyclonic Storm
06.12.19/0530	8.5/53.3	50-60 gusting to 70	Deep Depression
06.12.19/1730	7.7/51.3	45-55 gusting to 65	Depression
07.12.19/0530	7.0/49.5	30-40 gusting to 50	Depression
07.12.19/1730	6.3/47.7	20-30 gusting to 40	Well Marked Low

(b) Depression over eastcentral Arabian Sea

Yesterday’s deep depression over eastcentral Arabian Sea moved west-northwestwards and weakened into a depression in the early morning (0530 hrs IST) of today, the 5th December, 2019 over the same region. Moving further northwestwards, it lay centred at 0830 hrs IST of 05th December, 2019, over the same region near latitude 15.2°N and longitude 67.5°E about 710 km west-southwest of Mumbai (Maharashtra) and 680 km of west of Panjim (Goa).

It is very likely to move west-northwestwards and weaken gradually into a well marked low pressure area during next 12 hours.

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.

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
05.12.19/0830	15.2/67.5	40-50 gusting to 60	Depression
05.12.19/1130	15.3/67.2	35-45 gusting to 55	Depression
05.12.19/1730	15.6/66.5	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Rainfall Warning:

- No significant rainfall likely over the mainland in association with the above systems.

(ii) Wind warning:

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the morning of 6th December for subsequent 06 hours and likely to further decrease thereafter.
- **Eastcentral Arabian Sea :**
 - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Eastcentral Arabian Sea till today evening and likely to decrease gradually thereafter.
 - Strong wind, speed reaching 30-40 kmph, likely to prevail over the Sea along & off Maharashtra-Goa coasts during next 12 hours.

(iii) Sea conditions:

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow morning for subsequent 06 hours and improve further thereafter.
- **Eastcentral Arabian Sea:**
Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea till today evening and improve thereafter.

(iv) Fishermen Warning:

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.
- **Eastcentral Arabian Sea:**The fishermen are advised not to venture into Eastcentral Arabian Sea during next 12 hours.

The salient features of the climatology of cyclonic disturbances over the north Indian Ocean vis-à-vis the enhanced cyclonic activity during 2019 is placed at Annexure-1.

Both the systems are under continuous surveillance and concerned state governments 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.

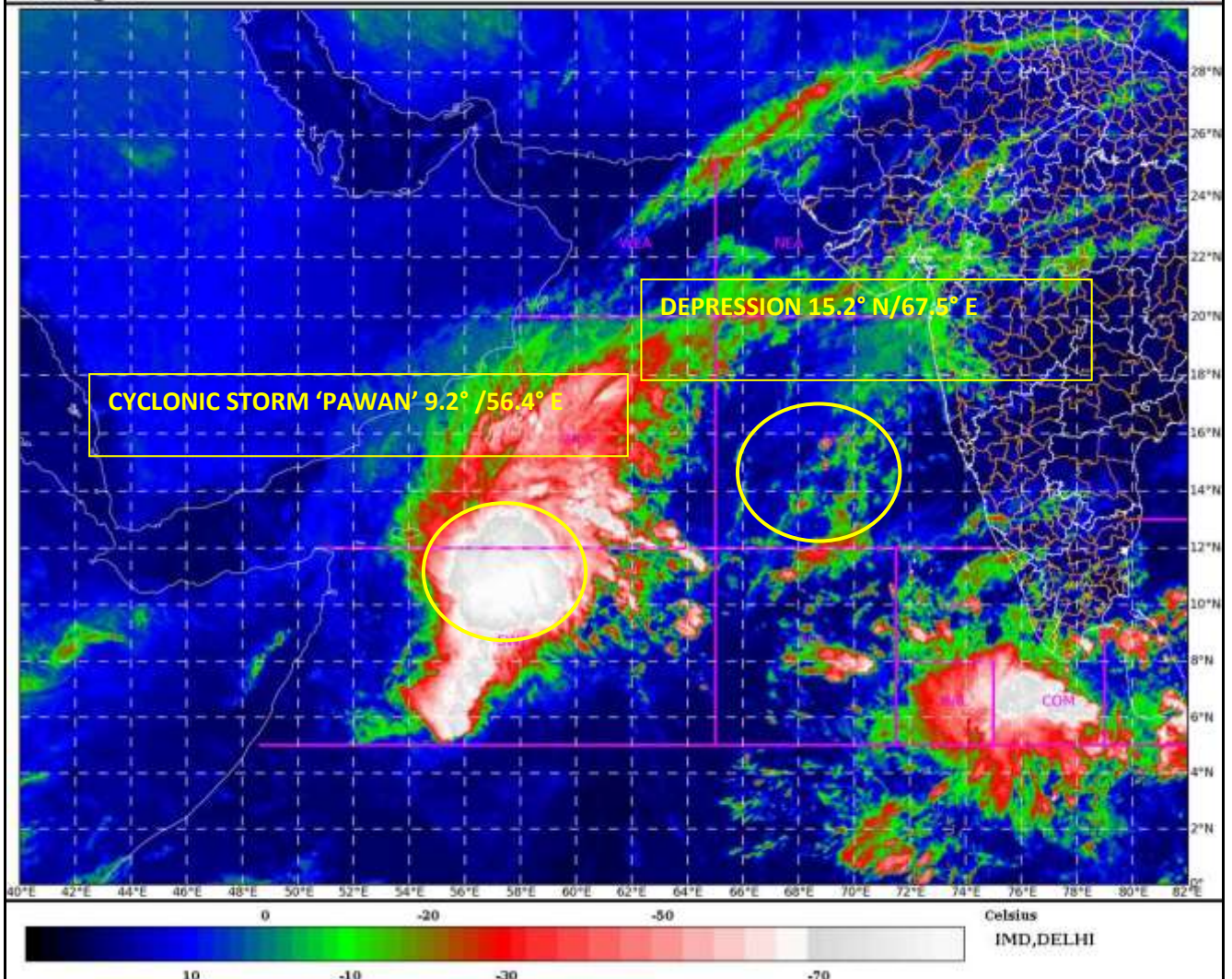
Phone: (91) 11-24652484, FAX: (91) 11-24643128, 24623220, E-mail:cwdhq2008@gmail.com, Website: rsmcnewdelhi.imd.gov.in

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.

SAT : INSAT-3D IMG
IMG_TIR1_TEMP 10.8 um
ARABIAN_SEA

05-12-2019(0400 to 0426) GMT
05-12-2019(0930 to 0956) IST



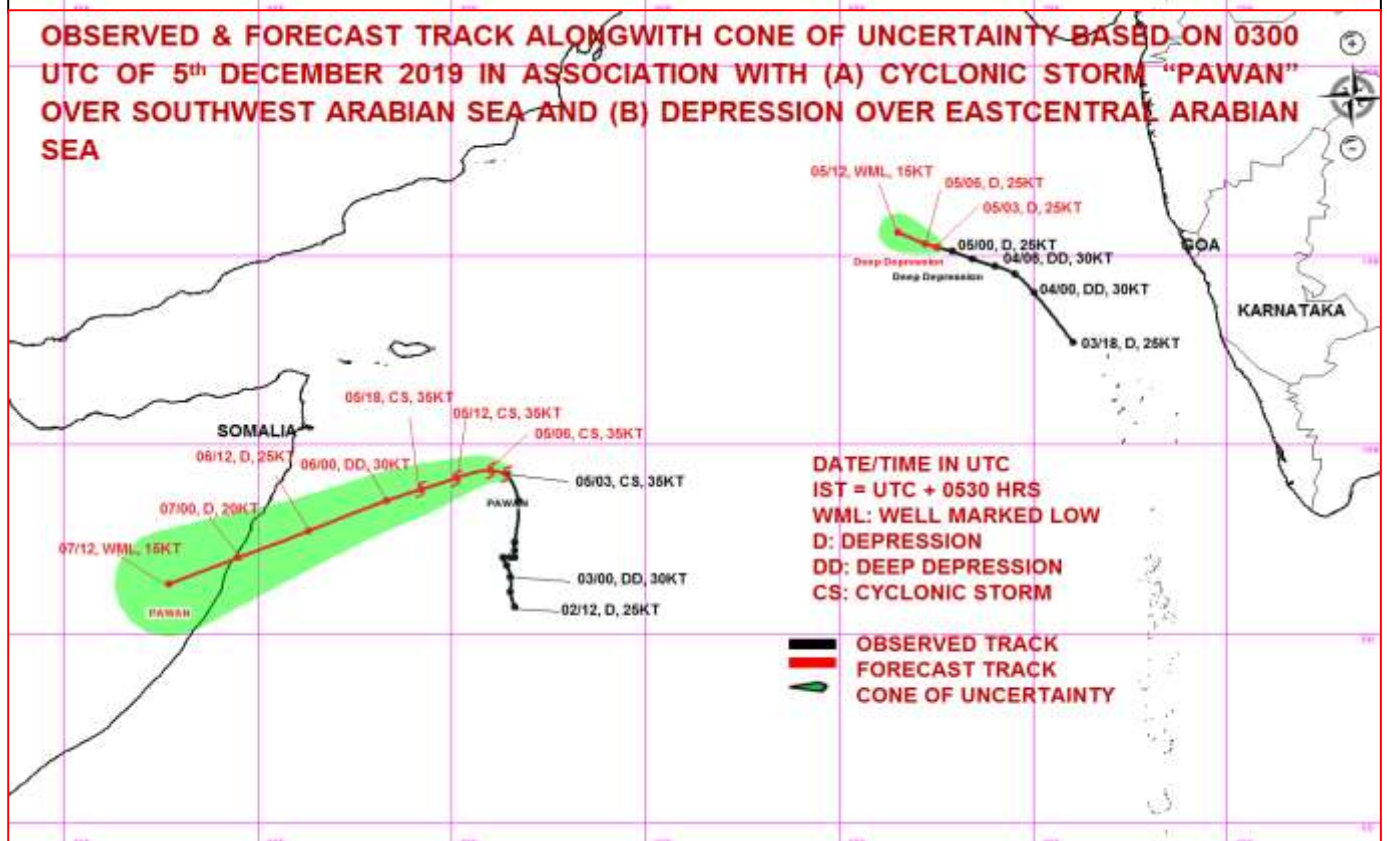
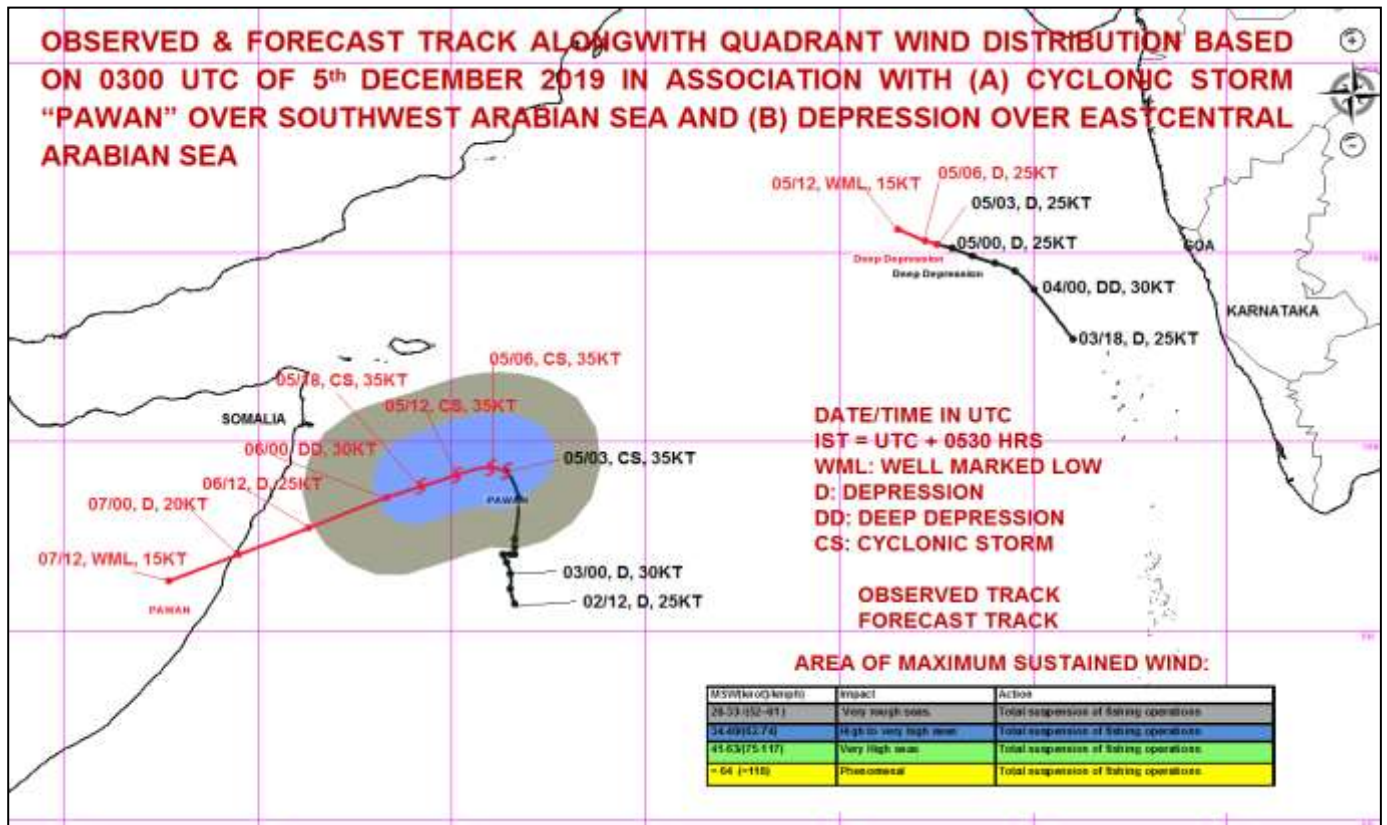
SWA: Southwest Arabian Sea

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.



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.

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: rsmcnwdelhi.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.