



Weather in India

POST MONSOON SEASON (October-December 2024)[†]

1. Introduction

Post monsoon season 2024 witnessed the formation of five intense low-pressure systems in the north Indian ocean (NIO), viz Severe Cyclonic Storm “DANA” over eastcentral Bay of Bengal in October, Cyclonic Storm “FENGAL” over Southwest Bay of Bengal in November and three depressions, one over Arabian sea in October and two over Bay of Bengal in October & December each. During the post-monsoon season, 2 well-marked low-pressure areas (both over Arabian sea) and 2 low-pressure areas (both over Bay of Bengal) were formed.

The southwest monsoon withdrew from the entire country on 15th October 2024, (normal date 15th October) and simultaneously northeast monsoon season commenced over the southern peninsula. Northeast monsoon activity was ceased on 27th January 2025. Rainfall activity during the season as a whole was 97% of its LPA. It was 101% of its LPA during October, 45% of its LPA during November and 174% of its LPA during December.

Rainfall activity over the core region of South Peninsular India (comprising of 5 subdivisions viz. Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry and Karaikal, South Interior Karnataka and Kerala & Mahe) during the season as a whole was 22% of its LPA. It was 118% of its LPA during October, 64% of its LPA during November and 293% of its LPA during December.

During Post-monsoon, the mean temperature over the country was 23.2 °C with an anomaly of 0.8 °C, the highest since 1901. Over the country as a whole, the maximum temperature was the 6th highest (29.0 °C with an anomaly of 0.4 °C) and the minimum temperature was the highest (17.3 °C with an anomaly of 1.3 °C) since 1901.

Among the four homogeneous regions, Over Northwest India, the minimum temperature was the highest (13.0 °C with an anomaly of 1.2 °C); in East &

Northeast India, it was also the highest (17.2 °C with an anomaly of 1.2 °C), Central India, it was the 2nd highest (18.2 °C with an anomaly of 1.3 °C) after the year 1979 (18.5 °C) and South Peninsular India, it was also the 2nd highest (21.9 °C with an anomaly of 1.3 °C) after the year 2023 (21.9 °C) since 1901.

Maximum temperature was above normal over most parts of the country except some parts of northwest India, central India and south peninsular India. Maximum temperature anomaly was more than 2 °C over parts of northern Chhattisgarh and was more than 1 °C over parts of Ladakh, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Jharkhand, Chhattisgarh, Assam & Meghalaya, West Bengal, Telangana, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

The minimum temperature was above normal in the country. The minimum temperature anomaly was more than 3 °C over parts of extreme southwest Punjab, north West Rajasthan, Bihar and Chhattisgarh. The minimum temperature anomaly was more than 2 °C over parts of Punjab, West Rajasthan, Gujarat region, Madhya Maharashtra, Bihar, Jharkhand, West Bengal, Odisha, Chhattisgarh, Vidarbha, Marathwada, North Interior Karnataka, Coastal Andhra Pradesh & Yanam and Telangana.

2. Seasonal rainfall (October–December 2024)

The meteorological sub-division wise rainfall percentage departure from normal is given in Fig. 1 and Table 1. Rainfall realized over the country as a whole during the post-monsoon season 2024 was 97% of LPA. During the season, many sub-divisions received large excess/excess/normal rainfall, except Nagaland, Manipur, Mizoram & Tripura, Jharkhand, Bihar, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, West Rajasthan, East Madhya Pradesh, Marathwada, Vidarbha, Chattisgarh and Telangana. During the season, out of 36 meteorological sub-divisions, 2 received large excess, 7 received excess, 13 received normal, 10 received deficient and 4 sub-divisions received large deficient Rainfall.

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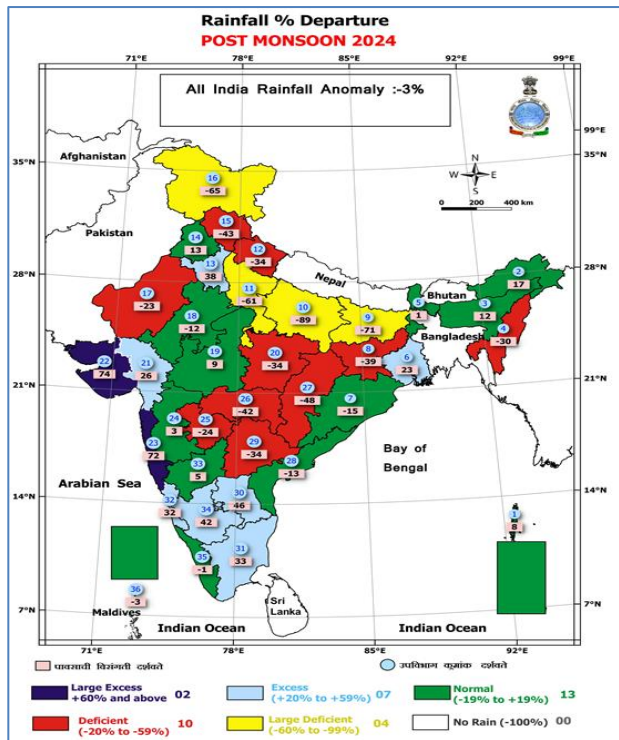


Fig. 1. Sub-divisionwise seasonal rainfall departure from normal (%) for post monsoon season (October to December, 2024). Sub-divisions are indicated by number on the map & bold letters in legend. The rainfall anomaly values for these 36 sub-divisions are indicated.

3. Monthly features

3.1. October

3.1.1. Withdrawal of southwest Monsoon

In view of the establishment of an anti-cyclonic circulation in the lower tropospheric levels over western parts of Northwest India and substantial reduction in moisture content as well as rainfall, the Southwest monsoon withdrew from entire country on 15th October against the normal date of 15th October. While withdrawal from the country normally starts on 17th September, this year it commenced on 23rd September. Northeast Monsoon rainfall activity has commenced over southeast Peninsula on 15th October, 2024. Hence, simultaneous withdrawal of southwest monsoon and onset of northeast monsoon took place in 2024.

3.1.2. Commencement of northeast monsoon rain

In view of setting in of north easterly winds in the lower tropospheric levels over Bay of Bengal and South Peninsular India, the Northeast monsoon rain commenced over coastal areas of Tamil Nadu, Puducherry, Karaikal, Kerala, Mahe, Coastal Andhra Pradesh, south interior Karnataka & Rayalaseema on 15th October.

3.1.3. Storms and depressions

Fig. 2. Shows Cyclones and depressions during post-monsoon season 2024.

(i) *Severe Cyclonic Storm “DANA” over the Eastcentral Bay of Bengal (22nd-26th October, 2024)*

Under the influence of upper air cyclonic circulation over north Andaman Sea and adjoining eastcentral & southeast Bay of Bengal, a **Low Pressure Area** formed over eastcentral Bay of Bengal and adjoining north Andaman Sea in the morning (0530 hrs. IST) of 21st. It moved west-northwestwards and lay as a **Well Marked Low Pressure Area** over eastcentral Bay of Bengal at 1130 hrs. IST of 21st. It continued moving west-northwestwards and concentrated into a **Depression** & lay centred over the same region near Lat. 15.4° N/Long. 91.6° E at 0530 hrs. IST 22nd. It further moved west-northwestwards and concentrated into **Deep Depression** & lay centred over the same region near Lat. 15.6° N/Long. 90.9° E at 1730 hrs. IST of 22nd. It further moved west-northwestwards and intensified into a **cyclonic storm “DANA”** (pronounced as Dana) and lay centred over the same region near Lat. 16.2° N/Long. 89.8° E about 560 km southeast of Paradip (Odisha) at 0530 hrs. IST of 23rd. It moved north-northwestwards and intensified into a **Severe Cyclonic Storm** over central & adjoining northwest Bay of Bengal and lay centered near Lat. 17.9° N/Long. 88.5° E at 2330 hrs. IST of 23rd. It further moved north-northwestwards and crossed north Odisha coast close to Habalikhati Nature Camp (Bhitarkanika) and Dhamara during 0130 to 0330 hrs. IST of 25th as a **severe cyclonic storm** with a wind speed of 100-110 kmph gusting to 120 kmph and lay centred at 0230 IST of 25th over Odisha coast near Lat. 20.7° N/Long. 87.0° E about 20 km southeast of Dhamara (Odisha). It continued to move north-northwestwards and weakened into a **cyclonic storm** over north coastal Odisha and lay centred near Lat. 21.2° N/ Long. 86.7° E at 0830 hrs. IST of 25th about 30 km northeast of Bhadrak. It moved northwestwards and weakened into a **Deep Depression** over the same region near Lat. 21.4° N/Long. 86.4° E at 1430 hrs. IST of 25th. It moved westwards and lay centred over north Odisha and weakened into a **Depression** over the same region near Lat. 21.4° N/Long. 86.2° E at 2330 hrs. IST of 25th. It further moved slightly westwards and weakened into a **Well Marked Low Pressure Area** over the same region at 0530 hrs. IST of 26th.

The system caused widespread rainfall over North coastal districts with heavy to very heavy rainfall at a few places over Bhadrak, Kendrapara and Jagatsinghpur districts of North coastal Odisha, heavy rainfall at isolated

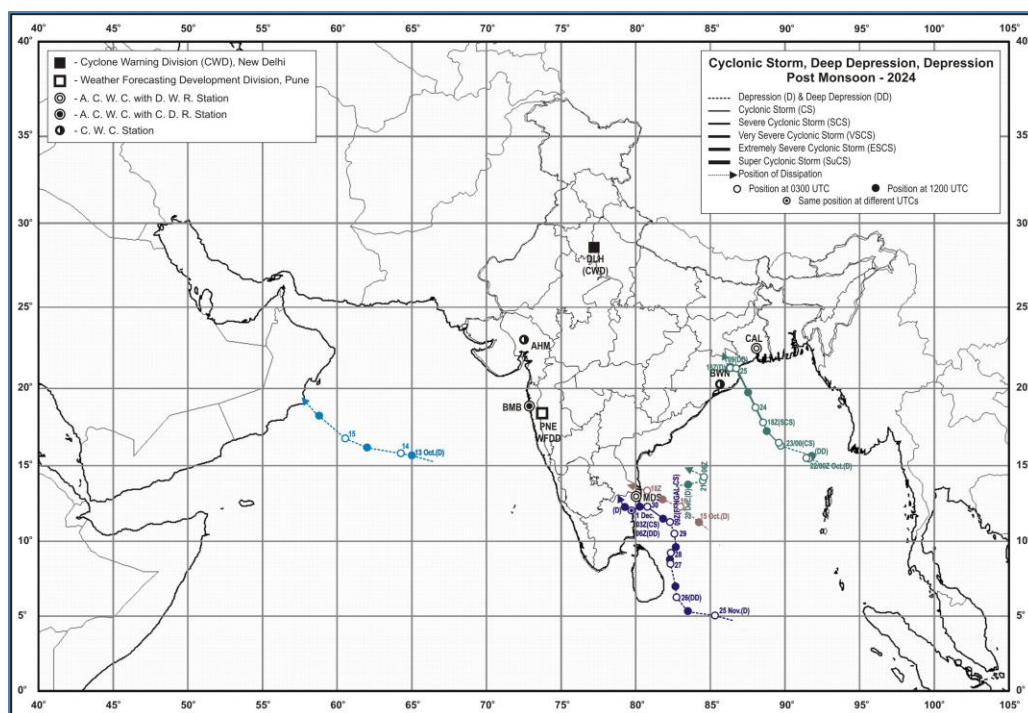


Fig. 2. Cyclones and depressions during post-monsoon season 2024

places over Midnapur districts of West Bengal and Singhbhum district of Jharkhand on 24th October. It caused heavy to very heavy rainfall at a few places with isolated extremely heavy rainfall (≥ 21 cm) over North Odisha and Gangetic West Bengal on 25th October.

As per media reports, no death was reported from Odisha. However, one person died in West Bengal due to electrocution. About 5,800 homes were damaged, eight lakh people were evacuated to 6,210 cyclone relief centres in Odisha. A total of 35.95 lakh people in Odisha were impacted due to subsequent flooding in 14 districts.

(ii) *Depression over central Arabian Sea (13th -15th October 2024)*

Under the influence of upper air cyclonic circulation over Lakshadweep and adjoining southeast Arabian Sea, a **Low Pressure Area** formed over Lakshadweep and adjoining southeast & eastcentral Arabian Sea. It lay as a **Well Marked Low Pressure Area** over eastcentral Arabian Sea off Karnataka-Goa coasts at 0830 hrs. IST of 10th with the associated cyclonic circulation extended upto 5.8 km above m. s. l. It moved northwestwards and lay over eastcentral Arabian sea off Maharashtra coast from 11th 12th. It lay over eastcentral & adjoining westcentral Arabian Sea at 0530 hrs. IST of 13th and persisted over the same region. It moved west-northwestwards and intensified into a **Depression** and lay centred over central

Arabian Sea near Lat. 15.6° N/Long. 65.0° E, about 860 km southeast of Masirah (Oman) at 1730 hrs. IST of 13th. It further moved slowly west-northwestwards and lay centred over the same region near Lat. 15.8° N/Long. 64.3° E, about 790 km southeast of Masirah (Oman) at 0830 hrs. IST of 14th. It continued to move west-northwestwards and lay over westcentral Arabian Sea off Oman coast near Lat. 16.1° N/Long. 62.0° E at 1730 hrs. IST of 14th. It further moved westwards and persisted over the same region near Lat. 16.1° N/Long. 61.0° E at 0530 hrs. IST of 15th. It moved northwestwards and lay centered over the same region near Lat. 16.8° N/Long. 60.5° E, about 460 km south-southeast of Masirah (Oman) 0830 IST of 15th. It moved northwestwards and crossed Oman coast near Lat. 19.35° N/Long. 57.7° E, close to Duqm (Oman) between 2230 hrs. IST and 2330 hrs. IST and lay as a **Well Marked Low Pressure Area** over coastal Oman at 2330 hrs. IST of 15th and became unimportant for the Indian region on 16th October. It caused no effect on Indian region.

(iii) *Depression over southwest Bay of Bengal (15th-17th October, 2024)*

Under the influence of the cyclonic circulation over southeast Bay of Bengal, a **Low Pressure Area** formed over the same region at 0530 hrs. IST of 14th October, 2024. It persisted over the same region upto 1730 hrs. IST of 14th and moved west-northwestwards and lay as a **Well**

TABLE 1

Sub-division wise rainfall (mm) for each month and season as a whole (October–December 2024) (Updated)

No.	Sub-Division	October			November			December			Season		
		Actual	Normal	%Dep	Actual	Normal	%Dep	Actual	Normal	%Dep	Actual	Normal	%Dep
1	A & N ISLANDS	295.1	284.6	4%	210.1	238.8	-12%	220.8	147.1	50%	726.1	670.5	8%
2	Arunachal pradesh	256.4	169.7	51%	11.7	41.6	-72%	6.7	30.2	-78%	281.4	241.5	17%
3	Assam & meghalaya	200.4	153.1	31%	8.8	26.6	-67%	1.4	10.4	-86%	212.0	190.1	12%
4	Nag.,Mani., Mizo., Trip	107.3	150.7	-29%	20.7	38.2	-46%	4.4	10.2	-57%	139.0	199.1	-30%
5	S.h.w.b.& sikkim	158.1	142.7	11%	8.5	14.9	-43%	3.4	10.7	-68%	170.0	168.3	1%
6	Gangetic W.B.	206.3	135.3	52%	2.4	21.1	-89%	5.8	18.6	-69%	214.5	175.0	23%
7	Odisha	72.2	112.0	-36%	4.2	22.1	-81%	43.0	6.7	541%	119.4	140.8	-15%
8	Jharkhand	52.1	73.4	-29%	1.0	8.8	-89%	1.7	6.9	-76%	54.7	89.1	-39%
9	Bihar	19.5	57.2	-66%	0.2	4.8	-97%	0.0	5.1	-99%	19.7	67.1	-71%
10	East U.P.	3.1	33.6	-91%	0.0	3.3	-100%	1.6	5.4	-71%	4.6	42.3	-89%
11	West U.P.	0.3	20.7	-99%	0.0	3.5	-100%	11.6	5.9	96%	11.8	30.1	-61%
12	Uttarakhand	2.9	31.0	-91%	0.7	6.4	-90%	32.9	17.6	87%	36.4	55.0	-34%
13	Har., Chandī., Delhi	0.5	9.6	-95%	0.0	3.7	-100%	26.4	6.1	333%	26.9	19.4	38%
14	Punjab	2.4	8.1	-70%	0.0	5.1	-99%	24.7	10.9	126%	27.1	24.1	13%
15	Himachal pradesh	0.7	25.1	-97%	0.2	19.7	-99%	46.2	38.1	21%	47.1	82.9	-43%
16	Jammu & Kashmir and Ladakh	8.7	33.1	-74%	10.9	35.2	-69%	25.1	59.4	-58%	44.6	127.7	-65%
17	West rajasthan	6.2	7.6	-19%	0.0	3.0	-100%	3.2	1.5	110%	9.3	12.1	-23%
18	East rajasthan	12.3	15.0	-18%	0.0	7.6	-100%	10.5	3.3	217%	22.8	25.9	-12%
19	West M.P.	34.9	29.5	18%	0.0	10.6	-100%	15.6	6.4	143%	50.5	46.5	9%
20	East M.P.	16.8	36.6	-54%	0.0	10.9	-100%	20.1	8.2	145%	36.9	55.7	-34%
21	Gujarat Region	41.1	22.1	86%	0.0	9.1	-100%	0.2	1.6	-87%	41.3	32.8	26%
22	Saurashtra & Kutch & Diu	49.8	18.1	175%	0.0	9.7	-100%	0.0	0.8	-100%	49.8	28.6	74%
23	Konkan & Goa	215.6	116.4	85%	24.0	21.0	14%	1.8	3.3	-44%	241.4	140.7	72%
24	Madhya M'rashtra	101.3	77.9	30%	1.5	21.3	-93%	3.3	4.3	-24%	106.1	103.5	3%
25	Marathawada	71.7	74.0	-3%	0.2	17.7	-99%	1.2	5.0	-75%	73.1	96.7	-24%
26	Vidarbha	41.6	57.8	-28%	0.1	13.0	-99%	2.5	5.4	-53%	44.3	76.2	-42%
27	Chhattisgarh	27.3	60.4	-55%	2.0	9.8	-79%	9.9	5.3	86%	39.2	75.5	-48%
28	Coastal A.P. & Yanam	160.8	182.2	-12%	37.6	113.1	-67%	81.4	27.6	195%	282.5	322.9	-13%
29	Telangana	60.5	95.8	-37%	5.9	23.0	-74%	16.0	5.3	201%	82.4	124.1	-34%
30	Rayalaseema	194.2	132.1	47%	46.5	78.4	-41%	103.7	25.9	300%	344.4	236.4	46%
31	Tamil Nadu, Pudcherry & Karaikal	214.3	172.0	25%	140.2	181.9	-23%	236.0	89.4	164%	590.5	443.3	33%
32	Coastal Karnataka	232.5	192.9	21%	46.9	61.7	-24%	69.2	9.4	636%	348.5	264.0	32%
33	N.I.Karnataka	123.3	103.2	20%	6.3	23.4	-73%	8.1	4.9	65%	137.7	131.5	5%
34	S.I.Karnataka	225.1	137.2	64%	26.7	51.2	-48%	31.6	10.6	198%	283.4	199.0	42%
35	Kerala & Mahe	239.5	306.4	-22%	116.4	153.1	-24%	131.3	32.4	305%	487.2	491.9	-1%
36	Lakshadweep	169.5	153.0	11%	98.5	120.3	-18%	57.9	61.6	-6%	325.9	334.9	-3%

Marked Low Pressure Area over the central part of south Bay of Bengal at 0530 hrs. IST and persisted over the same region at 0830 hrs. IST of 15th. It continued to move west-northwestwards and intensified into a **Depression** and lay centered over southwest Bay of Bengal near Lat. 11.4° N/Long. 84.4° E at 1730 hrs. IST of 15th. It further moved west-northwestwards and lay centered over southwest and adjoining westcentral Bay of Bengal near Lat. 12.3° N/Long. 83.0° E at 0830 hrs. IST of 16th and over the same region near Lat. 12.9° N/Long. 81.9° E at 1730 hrs. IST of 16th. It moved west-northwestwards and crossed north Tamil Nadu - south Andhra Pradesh coasts between Puducherry and Nellore close to north of Chennai near Lat. 13.5° N/ Long. 80.2° E around 0430 IST of 17th as a depression. Subsequently, it weakened into a **Well Marked Low Pressure Area** and lay over south coastal Andhra Pradesh and adjoining north coastal Tamil Nadu at 0530 hrs. IST of 17th. It moved west- north westwards and weakened into a **Low Pressure Area** over Rayalaseema and neighbourhood at 1730 hrs. IST of 17th and then became less marked at 0530 hrs. IST of 18th. However, the associated cyclonic circulation merged with the cyclonic circulation over eastcentral Arabian sea & adjoining north Lakshadweep area.

Rainfall associated with the depression shows that light to moderate rainfall occurred at a few places over coastal Tamil Nadu, Puducherry & Karaikal, Rayalaseema and south Andhra Pradesh on 15th October. Light to moderate rainfall occurred at most places with extremely heavy rainfall at isolated places and heavy to very heavy rainfall at many places over coastal Tamil Nadu, Puducherry & Karaikal and light to moderate rainfall occurred at a few places with heavy to very heavy rainfall at isolated places over Rayalaseema, south Andhra Pradesh and isolated heavy rainfall over south interior Karnataka on 16th October. Light to moderate rainfall occurred at a few places with isolated heavy rainfall over Rayalaseema, south Andhra Pradesh, south interior Karnataka and Kerala on 17th.

3.1.4. *Other synoptic features and associated weather*

Table 2 provides a summary of the synoptic features for the month of October 2024. The sub-divisional percentage departures of rainfall from normal and significant amounts of rainfall are given in Tables 1 and 5 respectively.

During October 2024, above average sea surface temperatures (SSTs) and neutral Indian Ocean Dipole (IOD) conditions prevailed over the Indian Ocean. Also, neutral El Nino-Southern Oscillation (ENSO) conditions observed over the equatorial Pacific Ocean with below

average sea surface temperatures in the east equatorial Pacific Ocean.

The Madden Julian Oscillation (MJO) index was in Phase 2 with an amplitude nearly 1 & in phase 3 with amplitude less than 1 during the first and second week of the month. Thus, MJO supported enhancement of convective activity over the Arabian Sea during 2nd week.

The realized rainfall for October was 26% of its LPA over northwest India, 95% of its LPA over central India, 114% of its LPA over east & northeast India and 112% of its LPA over south peninsula. Rainfall over the homogeneous region of South Peninsular India (170.3 mm) was the 38th highest since 1901 and the 6th highest since 2001. Rainfall over the homogeneous region of East and Northeast India (140.8 mm) was the 49th highest since 1901 and the 9th highest since 2001. Rainfall over the homogeneous region of Northwest India (5.2 mm) was the 17th lowest since 1901 and the 6th lowest since 2001. During the month, northeast monsoon rainfall activity over the core region of the south peninsula (comprising of 5 subdivisions viz. Coastal Andhra Pradesh and Yanam, Rayalaseema, Tamil Nadu & Puducherry and Karaikal, South Interior Karnataka and Kerala & Mahe) as a whole was above normal. For October 2024, rainfall over the south peninsula (only northeast monsoon region 203.8 mm) was 118% of its Long Period Average (LPA) value. Out of 36 meteorological subdivisions, 4 received large excess, 7 received excess, 8 received normal, 9 received deficient and 8 sub-divisions received large deficient rainfall during the month.

During the first & second week of the month, the southwest Monsoon withdrew from some parts of Uttar Pradesh, Gujarat, Madhya Pradesh, some parts of Maharashtra and most parts of the north Arabian Sea which resulted in subdued rainfall activity over most part of India except the northeastern part and the extreme south peninsula region. A low pressure area formed over north Bay of Bengal & adjoining coastal areas of Bangladesh & West Bengal and became less marked within a day, but its associated cyclonic circulation over northern parts of Gangetic West Bengal & neighbourhood caused extremely heavy rainfall at isolated places over northeastern India on 5th & 8th October. In addition, another low pressure area formed over Lakshadweep and adjoining southeast & eastcentral Arabian Sea with the associated cyclonic circulation extended upto mid tropospheric levels caused extremely heavy rainfall over south peninsular India on 8th October. The low pressure over Lakshadweep area intensified into a **Depression** over central Arabian Sea on 13th evening and crossed Oman coast close to Duqm (Oman) during the mid-night of 15th October and became unimportant for the Indian region.

TABLE 2

Details of the weather systems during October 2024

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
I Cyclonic storm						
1	Severe Cyclonic Storm "DANA"	22-26	eastcentral Bay of Bengal	west-northwestwards and then north-northwest	north coastal Odisha	<p>Initially it lay as upper air cyclonic circulation over north Andaman Sea and adjoining eastcentral & southeast Bay of Bengal on 20th, under its influence a LOPAR formed over eastcentral Bay of Bengal and adjoining north Andaman Sea on 21st. It concentrated into a Depression and then Deep Depression on 22nd, into a CS on 23rd over same region and into SCS over central & adjoining northwest Bay of Bengal on 24th. It crossed north Odisha coast on 24th as SCS and weakened into a CS over north coastal Odisha; into a DD, D on 25th and into a Well Marked LOPAR over the same region on 26th.</p> <p><i>Details are given in the article on Storms & Depressions over the north Indian Ocean-2024.</i></p>
II Depression						
1	Depression	13 -15	central Arabian Sea	northwestwards and west-northwestwards	coastal Oman	<p>Under the influence of upper air cyclonic circulation over Lakshadweep and adjoining southeast Arabian Sea, a LOPAR formed over Lakshadweep and adjoining southeast & eastcentral Arabian Sea on 9th and lay as a Well Marked LOPAR over eastcentral Arabian Sea off Karnataka-Goa coasts on 10th. It intensified into a Depression on 13th and crossed Oman coast between 1700 and 1800 UTC and lay as a Well Marked LOPAR over coastal Oman on 15th and became unimportant for the Indian region on 16th.</p> <p><i>Details are given in the article on Storms & Depressions over the north Indian Ocean-2024.</i></p>

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2	Depression	15-17	southwest Bay of Bengal	west-northwestwards	Rayalaseema	Under the influence of the cyclonic circulation over southeast Bay of Bengal, a LOP AR formed over the same region on 14 th lay as a Well Marked LOPAR over the central part of south Bay of Bengal on 15 th . It intensified into a Depression over southwest Bay of Bengal on 15 th and crossed north Tamil Nadu - south Andhra Pradesh coasts between Puducherry and Nellore, close to north of Chennai around 2300 UTC of 16 th and weakened into LOPAR over Rayalaseema on 17 th and then became less marked on 18 th . <i>Details are given in the article on Storms & Depressions over the north Indian Ocean-2024.</i>

II Well marked Low Pressure area/Low Pressure area

1	Low pressure area	4	north Bay of Bengal & adjoining coastal areas of Bangladesh & West Bengal	Stationary	Insitu	Under the influence of southwest Bangladesh & neighbourhood, a low pressure area formed over north Bay of Bengal & adjoining coastal areas of Bangladesh & West Bengal on 4 th & became less marked on 5 th .
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III Western Disturbances /Eastward moving Systems

(a) As a trough

1	At 5.8 km above m. s. l.	6-10	Roughly along 64° E to north of 34° N.	Northeast	Jammu and adjoining Pakistan Roughly along 72° E to north of 30° N	It lay as a cyclonic circulation over west Afghanistan & neighbourhood on 8 th . Moved away east-northeastwards on 11.
2	At 5.8 km above m. s. l.	25	Roughly along 50° E to north of 28° N.	Stationary.	Insitu	Became less marked on 26.
3	At 5.8 km above m. s. l.	29-30	Roughly along 68° E to north of 32° N.	Northeast	Roughly along 72° E to north of 32° N.	Moved away on 31 st October.

(b) Western Disturbances as a cyclonic circulation

NIL

(C) Induced cyclonic circulation

NIL

VI Other upper air cyclonic circulations

1	Upto 1.5 km above m. s. l.	1-4	Comorin area & adjoining Equatorial Indian Ocean	west	southeast Arabian Sea	Became less marked on 5.
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Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
2	Upto 5.8 km above m.s.l.	4	north Bangladesh and adjoining Sub Himalayan West Bengal	southwards	northern parts of Gangetic West Bengal & neighbourhood	Merged with the cyclonic circulation over northern parts of Gangetic West Bengal & neighbourhood on 5.
3	Upto 1.5 km above m.s.l.	4-6	westcentral and adjoining south Bay of Bengal	westwards	southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu-south Andhra Pradesh coasts	Became less marked on 7.
4	Upto 1.5 km above m.s.l.	5	northeast Assam & neighbourhood	Stationary	Insitu	Became less marked on 6.
5	At 1.5 km above m.s.l.	5-6	north Pakistan & adjoining Punjab	Stationary	Insitu	Became less marked on 7.
6	Upto 1.5 km above m.s.l.	7	east Bangladesh and adjoining southeast Assam	Stationary	Insitu	Became less marked on 8.
7	Upto 5.8 km above m.s.l.	9-11	Sri Lanka & neighbourhood	-	south Tamil Nadu coast	Merged with the trough ran from centre of the well marked low pressure area over eastcentral Arabian sea to north Sri Lanka on 12.
8	Upto 1.5 km above m.s.l.	9-14	east Assam & neighbourhood with a trough aloft ran roughly along Long.93° E to the north of Lat.25° N	southwestwards	south Assam	The trough aloft became less marked on 9. Cy-cir Became less marked on 15.
9	Upto 3.1 km above m.s.l.	11-12	central parts of south Bay of Bengal	west	north interior Tamil Nadu having southwestward tilt with height	Became less marked on 13 evening.
10	Upto 3.1 km above m.s.l.	13	northwest Uttar Pradesh	Stationary	Insitu	Became less marked on 14.
11	Upto 5.8 km above m.s.l.	14-15	westcentral Bay of Bengal off south coastal Andhra Pradesh	Stationary	Insitu	Became less marked on 16.
12	At 0.9 km above m. s. l.	15	northeast Bangladesh	northwest	north Bangladesh and adjoining Sub-Himalayan West Bengal	Merged with cyclonic circulation over north Bangladesh and adjoining Sub-Himalayan West Bengal on 16.
13	At 0.9 km above m. s. l.	15-16	Sub-Himalayan West Bengal & Sikkim	-	over north Bangladesh and adjoining Sub-Himalayan West Bengal	Became less marked on 17.
14	At 1.5 km above m. s. l.	16-18	east Assam & neighbourhood	-	northeast Assam and neighbourhood	Became less marked on 19.
15	Upto 5.8 km above m.s.l.	19	Gulf of Thailand	Stationary	Insitu	Became less marked on 20
16	At 3.1 km above m.s.l.	19-20	central Assam and nhd with a trough aloft roughly along Long.91° E to the north of Lat.23° N	northeast	the trough aloft at 3.1 km above m.s.l. ran roughly along Long.93° E to the north of Lat.24° N	became less marked on 20. However, trough aloft less marked on 21.
17	upto 5.8 km above m.s.l.	19-21	southwest and adjoining westcentral Bay of Bengal off north Tamil Nadu coast and south Andhra Pradesh coast	southwest	Tamil Nadu & neighbourhood	Became less marked on 22.

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Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
18	Between 1.5 km & 3.1 km above m.s.l.	21	east Bangladesh & neighbourhood	Stationary	Insitu	Became less marked on 22.
19	At 1.5 km above m.s.l.	21-22	eastcentral Arabian Sea off north Karnataka coast	-	eastcentral Arabian sea off Karnataka coast	Became less marked on 23.
20	Upto 5.8 km above m. s. l.	23-31	Comorin area & neighbourhood	west	southwest Arabian Sea	Became less marked on 1st November.
21	Upto 1.5 km above m.s.l.	25	southeast Arabian Sea off south Kerala coast	Stationary	Insitu	Became less marked on 26.
22	At 3.1 km above m. s. l.	25-26	northeast Assam	northeast	central Assam & neighbourhood	Became less marked on 27.
23	Between 1.5 and 3.1 km above m.s.l.	29-31	northeast Assam	Stationary	Insitu	Became less marked on 1 st November.
24	Upto 2.1 km above m.s.l.	30-31	Gulf of Mannar	Stationary	Insitu	Became less marked on 1 st November.
25	Between 1.5 & 3.1 km above m.s.l.	30-31	southwest Bay of Bengal off south Andhra Pradesh coast	Stationary	Insitu	Became less marked on 1 st November.
<i>V Other troughs / Wind Discontinuity</i>						
1	Upto 1.5 km above m.s.l.	2-3	ran from the cyclonic circulation over southeast Bangladesh & neighbourhood to north Andaman Sea across Myanmar coast	west	ran from northeast Bihar to north Andaman Sea across the cyclonic circulation over southeast Bangladesh and east Bay of Bengal	Became less marked on 4.
2	At 0.9 km above m.s.l.	4	ran from the cyclonic circulation over southeast Arabian Sea to south Kerala	Stationary	Insitu	Became less marked on 5.
3	At 0.9 km above m.s.l.	4	ran from northeast Uttar Pradesh to the cyclonic circulation over north Bangladesh and adjoining Sub Himalayan West Bengal across Bihar	Stationary	Insitu	Became less marked on 5.
4	At 0.9 km above m.s.l.	6	ran from Jharkhand to Manipur across the cyclonic circulation over northern parts of Gangetic West Bengal & neighbourhood	Stationary	Insitu	Became less marked on 7.
5	At 0.9 km above m.s.l.	6	ran from southeast Arabian Sea to Rayalaseema across north Kerala & south interior Karnataka	Stationary	Insitu	Became less marked on 7.
6	Upto 1.5 km above m.s.l.	7-8	ran from southwest Bay of Bengal to Lakshadweep across south Tamil Nadu and the cyclonic circulation over south Kerala	Insitu	ran from north coastal Tamil Nadu to the cyclonic circulation over Lakshadweep & adjoining southeast Arabian Sea across Kerala	Became less marked on 9.
7	Upto 1.5 km above m.s.l.	9	ran from Comorin area to north Konkan coast across the cyclonic circulation associated with low pressure area over Lakshadweep and adjoining southeast & eastcentral Arabian Sea	Stationary	Insitu	Became less marked on 10.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
8	Upto middle tropospheric levels	11-12	ran from the centre of well marked low pressure area over eastcentral Arabian sea off Maharashtra coast to southeast Arabian sea off south Kerala coast	Insitu	from the centre of well marked low pressure area over eastcentral Arabian sea to north Sri Lanka across coastal Karnataka, Tamil Nadu	Became less marked on 13.
9	Between 3.1 km & 5.8 km above m.s.l.	13-14	ran from the centre of well marked low pressure area over eastcentral & adjoining westcentral Arabian sea to Comorin area across south Kerala and the cyclonic circulation over Tamil Nadu	Insitu	ran from the centre of Depression over central Arabian Sea to Comorin area across south Kerala and the cyclonic circulation over Tamil Nadu between the same levels	Became less marked on 15.
10	Upto 3.1 km above m.s.l.	18	ran from the cyclonic circulation over eastcentral Arabian Sea to south Andhra Pradesh coast across Karnataka & Rayalaseema	Stationary Insitu		Became less marked on 19.
11	Upto 1.5 km above m.s.l.	22	ran from the centre of the Depression over eastcentral Bay of Bengal to south Tamil Nadu coast	Stationary Insitu		Became less marked on 23 rd morning.
12	Between 4.5 & 5.8 km above m.s.l.	26	ran from Lakshadweep area to north Tamil Nadu coast	Stationary Insitu		Became less marked on 27.

TABLE 3

Details of the weather systems during November 2024

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
<i>I Cyclonic storm</i>						
1	Cyclonic Storm “FENGAL”	23 Nov.- 2 Dec.	Southwest Bay of Bengal	Northeast	Tripura and adjoining Bangladesh and Mizoram	<p>A LOPAR formed over east Equatorial Indian Ocean and adjoining SE Bay of Bengal 23rd and Well Marked LOPAR over SE Bay of Bengal and adjoining East Equatorial Indian Ocean on 24th and intensified into a D over central parts of south Bay of Bengal and adjoining east Equatorial Indian Ocean on 25th and into a DD and lay over the same region 26th. It intensified into a CS “FENGAL” over the same region on 29th. It crossed north Tamil Nadu & Puducherry coasts on 30th Nov. and weakened into a DD & into a D over the same region on 1st Dec. into a Well Marked LOPAR over north interior Tamil Nadu and into LOPAR over north interior Tamil Nadu and adjoining south interior Karnataka on 2nd. It persisted over the same area at 0300 UTC of 2nd. It again become Well Marked LOPAR over coastal Karnataka and adjoining east central Arabian sea ON 3rd and weakened into a LOPAR over eastcentral & adjoining southeast Arabian sea on 4th and became less marked on 5th December.</p> <p><i>Details are given in the article on Storms & Depressions over the north Indian Ocean-2024.</i></p>

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Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
<i>II Well marked Low Pressure area/Low Pressure area</i>						
1.	Low Pressure area	11 eve. morning - 12	central parts of south Bay of Bengal	westward	southwest and adjoining central Bay of Bengal off north Tamil Nadu & adjoining south Andhra Pradesh coasts	Under the influence of cyclonic circulation over central parts of south Bay of Bengal lay over southwest Bay of Bengal, a low pressure area formed over the same region on 11 th evening & became less marked on 13.

III Western Disturbances /Eastward moving Systems

(a) As a trough

1	At 5.8 km above m. s. l.	11	roughly along Long. 70° E to the north of Lat. 32° N	eastwards	roughly along Long. 70° E to the north of Lat. 32° N	It moved away eastwards on 12.
2	At 5.8 km above m. s. l.	13-16	roughly along Long. 58° E to the north of Lat. 33° N	east-northeast	roughly along Long. 70° E to the north of Lat. 32° N	It lay as a cyclonic circulation north of Afghanistan and adjoining Pakistan on 14 and became less marked on 15. However, the trough aloft moved away east-northeastwards on 17.
3	At 3.1 km above m. s. l.	22-24	roughly along Long. 65° E to the north of Lat. 30° N	east-northeast	roughly along Long. 68° E to the north of Lat. 32° N	It lay as a cyclonic circulation over Afghanistan and neighbourhood on 23 and again lay as a trough on 24. It moved away east-northeastwards on 25.

(b) As a cyclonic circulation

1	Between 3.1 & 4.5 km above m.s.l.	27 Nov. – 2 Dec.	northeast Iran and neighbourhood	East-northeast	ran roughly along Long. 65° E to the north of Lat. 30° N	It lay as a trough on 28 and moved away east-northeastwards on 3 December.
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(c) Induced cyclonic circulations

Nil

IV Other upper air cyclonic circulations

1	Between 3.1 & 4.5 km above m.s.l.	1	northeast Assam	Stationary	Insitu	Became less marked on 2.
2	Upto 1.51 km above m.s.l.		west Assam	Stationary	Insitu	Became less marked on 2.
3	Upto 3.61-5 km above m.s.l.		Gulf of Mannar neighbourhood	&westward	central parts of south Arabian Sea	Became less marked on 6.
4	At 1.5 km above m.s.l.	2	central Pakistan adjoining northwest Rajasthan	&Stationary	Insitu	Became less marked on 3.
5	Between 1.5 & 3.1 km above m.s.l.	4-7	north Bangladesh neighbourhood	&South then west	and Manipur neighbourhood	&Became less marked on 8.
6	Upto 3.15 km above m.s.l.		Gulf of Mannar adjoining Sri Lanka coast	&Stationary	Insitu	Became less marked on 6.
7	Between 1.5 & 3.1 km above m.s.l.	8-9	southeast Arabian Sea adjoining Lakshadweep area	&Insitu	over central parts of south Arabian sea	Became less marked on 10.
8	Upto 0.912-14 km above m.s.l.		southeast Arabian sea and adjoining Kerala coast	&Insitu	Lakshadweep and adjoining southeast Arabian Sea	Became less marked on 15.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
9	Upto 1.513 km above m.s.l.		east Bangladesh	Stationary	Insitu	Became less marked on 14.
10	At 1.5 km above m.s.l.	17-18	south Bangladesh neighbourhood	Stationary	Insitu	Became less marked on 19.
11	At 0.9 km above m.s.l.	17	Maldives and adjoining Equatorial Indian Ocean	Stationary	Insitu	Became less marked on 18.
12	At 0.9 km above m.s.l.	18	Comorin area neighbourhood	Stationary	Insitu	Became less marked on 19.
13	At 3.1 km above m.s.l.	19	west Assam neighbourhood	Stationary	Insitu	Became less marked on 20.
14	At 1.5 km above m.s.l. on	19-21	central Pakistan neighbourhood	Stationary	Insitu	Became less marked on 22.
15	At 1.5 km above m.s.l.	19-21	south Tamil Nadu adjoining Comorin area	Insitu	Comorin area neighbourhood	Became less marked on 22.
16	At 0.9 km above m.s.l.	20	south east Arabian sea off Kerala coast	Stationary	Insitu	Became less marked on 21.
17	At 1.5 km above m.s.l.	20-24	south Bangladesh area	northeast	northeast Assam	Became less marked on 25.
18	A m.s.l.	22	south Kerala and neighbourhood	Stationary	Insitu	Became less marked on 23.
19	At 0.9 km above m.s.l.	25	Sub-Himalayan Bengal & neighbourhood	Stationary	Insitu	Became less marked on 26.
20	At 0.9 km above m.s.l.	28-29	southeast Bangladesh	Stationary	Insitu	Became less marked on 30.
IV. Troughs						
1	upto 3.1 km above m.s.l.	4	ran from the cyclonic circulation over southeast Bay of Bengal to south Tamil Nadu	Stationary	Insitu	Became less marked on 5.
2	At 0.9 km above m.s.l.	2	ran from the cyclonic circulation over south Tamil Nadu coast & adjoining Sri Lanka to coastal Karnataka	Stationary	Insitu	Became less marked on 3.
3	Upto 3.1 km above m.s.l.	7-11	Gulf of Mannar to eastcentral Bay of Bengal across the cyclonic circulation over southwest Bay of Bengal	northwestwards	It ran from the cyclonic circulation over southwest Bay of Bengal to westcentral Bay of Bengal off north coastal Andhra Pradesh	Became less marked on 12.
4	At 0.9 km above m.s.l.	17	ran from the cyclonic circulation over Maldives and adjoining Equatorial Indian Ocean to southeast Arabian Sea	Stationary	Insitu	Became less marked on 18.

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Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
5	Between 1.5 km and 4.5 km above m.s.l.	22-23	ran from the cyclonic circulation over east Equatorial Indian Ocean and adjoining south Andaman sea to Gulf of Mannar	Insitu	ran from the cyclonic circulation associated with the low pressure area over east Equatorial Indian Ocean and adjoining southeast Bay of Bengal to Comorin area	Became less marked on 24.
<i>North-South troughs</i>						
1	At 4.5 km above m.s.l.	5-7	ran roughly along Long.89° E to the north of Lat.23° N	eastwards	roughly along Long.92° E to the north of Lat.23° N	Moved away eastwards on 8.
<i>East- west trough</i>						
1	Upto 3.1 km above m.s.l.	2	ran from northwest Bangladesh to Manipur	Stationary	Insitu	Became less marked on 3.

TABLE 4

Details of the weather systems during December 2024

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
<i>I Cyclonic Storm</i>						
1	Depression	20-21	westcentral Bay of Bengal off north Andhra Pradesh coast	Initially north east northeastwards	southwest adjoining westcentral Bay of Bengal off south Andhra Pradesh- north Tamil Nadu coasts	Under the influence of upper air cyclonic circulation over southeast Bay of Bengal, a Low Pressure Area formed over central parts of south Bay of Bengal on 16 th and Well Marked Low Pressure Area over the same region 18 th . It concentrated into a Depression and lay over westcentral Bay of Bengal off Andhra Pradesh coast on 20 th . It weakened into a Well Marked LOPAR over westcentral Bay of Bengal on 21 st . It persisted over the same region on 22 nd ; over westcentral and adjoining southwest Bay of Bengal off south Andhra Pradesh- north Tamil Nadu coasts on 23 rd and over southwest and adjoining westcentral Bay of Bengal off south Andhra Pradesh- north Tamil Nadu coasts on 24 th and weaken into a LOPAR over the same region 25 th . <i>Details are given in the article on Storms & Depressions over the north Indian Ocean-2024.</i>
<i>II Well marked Low Pressure area/Low Pressure area</i>						
1	Well Low area	Marked pressure 7-14	Equatorial Indian Ocean & adjoining southeast Bay of Bengal	westwards	Lakshadweep adjoining Maldives	Under the influence of cyclonic circulation over Equatorial Indian Ocean & adjoining southeast Bay of Bengal, a low pressure area formed over the same region on 7 th . It persisted over the same region on 8 th & 9 th and became well marked low pressure area over the southwest and adjoining southeast Bay of Bengal on 10 th . It lay as a LOPAR over Gulf of Mannar & adjoining Comorin area on 13 th & 14 th . It became less marked on 15 th morning.
<i>III Western Disturbances /Eastward moving Systems</i>						
<i>(a) As a trough</i>						
1	At 5.8 km above m. s. l.	10-12	ran roughly along Long. 70° E to the north of Lat. 33° N	east-northeast	roughly along Long. 73° E to the north of Pakistan & neighbourhood of Lat. 30° N.	It lay as a cyclonic circulation over north Pakistan & neighbourhood on 12 and moved away east-northeastwards on 13.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
2	At 5.8 km above m. s. l.	7-9	roughly along Long. 68° E to the north of Lat. 28° N	northeast	northwest Pradesh	Uttar Pradesh It lay as a cyclonic circulation over central Pakistan & neighbourhood on 8 which moved away northeastwards on 10.
3	At 5.8 km above m. s. l.	18-20	roughly along Long. 60° E to the north of Lat. 28° N.	northeast	roughly along Long. 72° E to the north of Lat. 25° N.	Moved away northeastwards on 21.
4	At 5.8 km above m. s. l.	14-17	roughly along Long. 42° E to the north of Lat. 25° N	east-northeast	roughly along Long. 68° E to the north of Lat. 25° N	It moved away east-northeastwards on 18.
5	At 5.8 km above m. s. l.	25-29	roughly along Long. 55° E to the north of Lat. 31° N	northeast	Northwest Pradesh	Uttar Pradesh It lay as a cyclonic circulation over north Pakistan & neighbourhood on 27. Moved away 80° E to the north of northeastwards on 30. Lat. 23° N
6	At 5.8 km above m. s. l.	29 Dec - 2 Jan 2025	roughly along Long. 53° E to the north of Lat. 32° N	east	Jammu & adjoining north Pakistan	It then lay as a cyclonic circulation over east Afghanistan & neighbourhood on 31 December and less marked on 3 January 2025.
(b) As a cyclonic circulation						
1	between 3.1 & 5.8 km above m.s.l.	21-25	Iraq & neighbourhood	east-northeast	Haryana & neighbourhood	Moved away east-northeastwards on 26.
(c) Induced cyclonic circulations						
1	Upto 1.5 km a.s.l.	8	central Pakistan & adjoining Rajasthan			Became less marked on 9.
2	Upto 1.5 km a.s.l.	18-20	southwest Rajasthan	north	northwest Rajasthan and neighbourhood	Became less marked on 21.
3	Upto 1.5 km above m. s. l.	26 evening - 29	southwest Rajasthan and neighbourhood	north	northeast Rajasthan & neighbourhood	Became less marked on 30.
IV Other upper air cyclonic circulations						
1	At 1.5 km above m.s.l.	2-4	east Bangladesh and neighbourhood	eastwards	south Assam & neighbourhood	Became less marked on 5.
2	At 3.1 km above m.s.l.	2	northeast Assam	southwestwards	east Bangladesh and adjoining south Assam	Merged with the cyclonic circulation over east Bangladesh and adjoining south Assam on 3.
3	At 3.1 km above m.s.l.	6-7	northeast Assam	Insitu	trough aloft roughly along Long. 92° E to the north of Lat. 25° N	Became less marked on 8.
4	At 3.1 km above m.s.l.	8	northeast Assam & neighbourhood	Stationary	Insitu	Became less marked on 9.
5	At 1.5 km above m.s.l.	8-9	south Assam & neighbourhood	Stationary	Insitu	Became less marked on 10.
6	At 0.9 km above m.s.l.	9	Bangladesh	Stationary	Insitu	Became less marked on 10.
7	Upto 1.5 km above m.s.l.	11-13	Tripura & neighbourhood	Northward	central Assam	Became less marked on 14.
8	At 3.1 km above m.s.l.	14-15	northeast Assam	Stationary	Insitu	Became less marked on 16.
9	Between 1.5 & 3.1 km above m.s.l.	15-17	central Pakistan adjoining Division	Jammu southwards	lay as an induced cyclonic circulation over northwest Rajasthan & neighbourhood	Became less marked on 18.
10	Upto 1.5 km above m.s.l.	18-21	Bangladesh and neighbourhood	Insitu	east Bangladesh and neighbourhood	Became less marked on 22.

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Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
11	At 1.5 km above m.s.l.	21	south Rajasthan & neighbourhood	Stationary	Insitu	Became less marked on 22.
12	At 3.1 km above m.s.l.	20-21	northeast Assam & neighbourhood	Stationary	Insitu	Became less marked on 21 st evening.
13	At 1.5 km above m.s.l.	22	Punjab & adjoining Haryana	Stationary	Insitu	Became less marked on 23.
14	upto 1.5 km above m.s.l.	22-25	southwest Rajasthan & adjoining Pakistan	oscillatory	northwest Madhya Pradesh & neighbourhood	It lay as an induced cyclonic circulation from 23 morning to 25 and became less marked on 26.
15	At 1.5 km above m.s.l.	24-28	east Bangladesh	eastwards	Tripura & neighbourhood	Became less marked on 29.
16	At 1.5 km above m.s.l.	24	Lakshadweep & neighbourhood	Stationary	Insitu	Became less marked on 25.
17	At 1.5 km above m.s.l.	26	over north Punjab & neighbourhood	Stationary	Insitu	Became less marked on 27.
18	At 3.1 km above m.s.l.	27-28	southeast Arabian Sea off south Kerala coast	Stationary	Insitu	Became less marked on 29.
19	Upto 1.5 km above m.s.l.	29	east Bangladesh & neighbourhood	Stationary	Insitu	Became less marked on 30.
20	Upto 1.5 km above m.s.l.	30 Dec-1 st Jan	central parts of south Bay of Bengal & adjoining Equatorial Indian Ocean	Insitu	Equatorial Indian Ocean & adjoining southwest Bay of Bengal	Became less marked on 2 nd January 2025.
21	Upto 1.5 km above m.s.l.	30-31 Dec	northeast Assam & neighbourhood	southwest	south Assam & neighbourhood	Became less marked on 1 st January 2025.
22	At 1.5 km above m.s.l.	30	northeast Bihar & neighbourhood	Insitu	Insitu	Became less marked on 31 st December.
IV. Troughs						
1	At 0.9 km above m.s.l.	28-29	ran from southeast Arabian Sea to North Konkan	In-situ	southeast Arabian sea to south Maharashtra coast	Became less marked on 30.
2	At 1.5 km above m.s.l.	27-29	ran from north Pakistan to east Arabian Sea across induced cyclonic circulation over southwest Rajasthan & neighbourhood	oscillatory	ran from the cyclonic circulation over northeast Rajasthan & neighbourhood to north Gujarat	Became less marked on 30.

TABLE 5

Representative amounts of Rain greater than or 5 cm for Post monsoon season Oct. to Dec. 2024

1 Oct	19 - Barpeta/Sarbhog AWS; 18 - Dhekiajuli; 17 - B P Ghat; 16 - Barpeta; 15 - A P Ghat; 14 - Tihu ARG; 12 - Bhumuraguri; 10 - Lakhipur ARG, Majbat and Hasimara; 9 - Beky Rly.bridge, Silchar and Tezpur; 8 - Lakhipur and Matijuri; 7 - Manash Nh Xing; 6 - Chintapalle, Jeypore, Narayankhed, Ranganadi Nt Xing, Nalbari/Pagladia and Tamenglong; 5 - Narayanpur, Puttur HMS, Chandurthi, Lala ARG, Karimganj and Amreli.
2 Oct	11 - Sangareddy; 9 - Bhalki and Gandhari; 8 - Mannarkkad AWS; 7 - Kanjirappally, Palode AWS, Pwd Tiruppur, Uppar Dam, Nagarkata, Neora, Nh31 Bridge, Canning, Kammardi and Hathanoora; 6 - Mannarkkad, Venkuringi AWS, Tiruppur North, Tekkali, Barapani and Poonjar AWS; 5 - Jalalpor, Jat, Tuljapur, Madurai Andipatti, Borigumma, Mathabhanga, Mekhliganj, Rongo, Gersoppa, Navasari AWS and Khandala.
3 Oct	17 - Darjeeling; 13 - Bijonbari; 11 - Belonia ARG; 9 - Khambha, Kelavarapalli Dam, Natrampalli, Yelagiri ARG, Algarah, Amfu Kalimpong, Gubbi and Lunding; 8 - Ambur, Vadapudupattu, Madanapalle, Chenna Kothapalle and Kalimpong; 7 - Airport Chakka ARG, Adayamadai, Tcs Mill Kethandapatti, Vaniyambadi, Pakyong, Chandel AWS, Kanchanpur and Bijapur; 6 - Daund, Tuljapur, Umarga, Thirukoilur ARG, Thandarampettai, Basl Manampoondi, Arogyavaram, Lepakshi, Gangtok, Manthala, Tiptur, Kishanpur, Trivandrum AP and Ravangla ARG; 5 - Renapur,

	Vanamadevi, Kcs Mill-1 Moongilthura, Tirukoilur, Thuckalay, Vilupuram, Venkatagiri Kota, Chilamathur, Hindupur, Sukiapokhri, Damthang, Kollegal, Ramanagara, Madhugiri, Alampur, Suryapet (ARG) , Tirumalagiri (ARG) , Atmakur M, Barari, Umrangso, Gandachara AWS, Belonia and Kvk South.
4 Oct	14 - Bhaghmara; 13 - Williamnagar; 12 - Mawsynram; 11 - Cherrapunji (rkm) ; 10 - Lakhipur and Nongstein; 9 - Rongo, Cherrapunji and Jia Bharali N T Xing; 8 - Vanur, Rajampet, Yuksom, Jhallong, Pirpaiti, Barahar Kothi, Tuting AWS and Zero; 7 - Umarga, Puraini, Anini AWS, Yazali, Naharlagun AWS, Itanagar, Tuting, Basar, Dhupdhara ARG, Tezpur, Mawkyrwat and Basar AWS; 6 - Kudimiyannalai, Bhawanipur, Naharlagun, Kamba AWS, Lakhipur ARG, Guwahati City IMD, Dharamtul, Kampur, Resubelpara, Bhumuraguri, Kalaktang and Kundala Dam AWS; 5 - Emerald, Vamban Kvk AWS, Panapakkam, Rsl-3 Avalurpettai, Anantpur, Pullampeta, Gudur, Long Island, Port Blair, Nidamanur, Gurua, Chausa, Sarmera, Raghunathpur, Kibithu, Roing, Mawphlang, Majuli, Khetri ARG, Sonapur ARG, N.lakhimpur/Lilabari, Chauldhowaghat, J B Gaon, Ranganadi Nt Xing, Barapani, Majbat, Chottabekra, Baithalango, Daparijo and Darjeeling.
5 Oct	24 - Mawsynram; 17 - Agumbe; 16 - Nongstein; 15 - Sandur and Cherrapunji (rkm) ; 14 - Cherrapunji; 13 - Me Mathur and Nayakanahatty; 12 - Avudayarkoil, Thangachimadam, Narayanpur, Bhaghmara and Mawkyrwat; 11 - Santhipuram and Mawphlang; 10 - Sendamangalam; 9 - Idukki, Jayamkondam, Dscl Kalayanallur, Jambukuttapatti, Kamba AWS, Goalpara CWC, Kokrajhar, Jowai and Yingkiong; 8 - Chidambaram AWS, Manimutharu Dam PWD, Pudukottai, Vamban Kvk AWS, Pamban, Tirupattur, Manapparai, Rayadurg, Chandanpur, Dharmasthala, Kampli, Yellareddy and Daparijo; 7 - Loharkhet, Annamalai Nagar, Sembanarkoil PWD, Paramathivelur, Tiruchengode, Illuppur, Tiruvadanai, Kariyakovil Dam, Natrampalli, Vadapudupattu, Nandhiyar Head, Chilamathur, Lepakshi, Hut Bay, Yuksom, Kollegal, Hosadurga, Kudligi, Putki, Putki Dvc, Srijangram ARG and Goalpara AWS; 6 - Suthamalli Dam, K.m.koil, Kilacheruvai, Lalpet, Kurinjipadi, Dscl Thiyyadurgam, Gangavalli, Ambur, Tirupathur PTO, Kalasapakkam, Vilathikulam, Marungapuri, Trp AP, Rsl-2 Mundiampakkam, Vilupuram, Pamidi, Cooch Behar, Gangavathi, Chamarajanagar, Kanakapura, Ramanagara, Pavagada, Miao, Kabu Basti, Aie Nh Xing, Manash Nh Xing, Dhema, Khliehriat, Mangkolemba and Ariyalur; 5 - Pahari SR, Peermade To, Kodungallur, Pookot, Nilanga, Vepur, Dharmapuri PTO, Palacode, Pappireddipatti, Panchapatti, Barur, Nedungal, Penucondapuram, Tirumangalam, Annavasal, Gandarvakottai, Mandapam, Paramakudi, Rameswaram, Danishpet, Aduthurai AWS, Arani, Chetpet, Jamunamarathur, Lalgudi, Rsl-2 Kedar, Rsl-2 Soorapattu, Rsl-2 Valavanur, Rsl-3 Valathy, Gooty, Kalyandrug, Kanekal, Singanamala, Chittoor, Kuppam, Holagunda, Madakasira, Port Blair, Bankura (CWC) , Soreng ARG, Contai, Kota, Gangavathi ARG, Kakkeri, Kawadimatti ARG, Kudathini, Gubbi, Kibithu, Roing, Tuting, Daporizo AWS, Silchar, Dhubri CWC, Bahalpur, Gossagaon, Tikrikilla, Mokochung AWS, Deomali, Purulia and Dharmapuri.
6 Oct	14 - Nongstein; 13 - Vadakuthu and Pwd Travellers Bungalow; 12 - Rasipuram, Williamnagar, Resubelpara and Mawkyrwat; 11 - Peermade To and Salem; 10 - Dhupdhara ARG; 9 - Alangudi, Tirumayam, Bankura (CWC) , Napoklu and Mawsynram; 8 - Vanamadevi, Pudukottai, Anaimaduvu Dam and Gudur; 7 - Irikkur, Munderi AWS, Pimpalgaonbaswant ARG, G Bazar, Upper Gudalur, Avudayarkoil, Perungalur, Pamban and Tirupathur; 6 - Kodanad, Taluk Office Pandalur, Gandarvakottai, Sandhiyur Kvk AWS, Yercaud, Karaikudi, Bandipura, Channapatna, Nala, Bhagalpur, Cherrapunji, Mawphlang and Majbat; 5 - Devla, Panruti, Src Kudithangi, Hogenekal, Pappireddipatti, Krishnagiri, Pambar Dam, Mangalapuram, Kil Kotagiri Estate, Danishpet, Lower Anaicut, Tirupattur, Dc Office Tiruppur, Hut Bay, Karkala, Nargund, Ramanagara, Barpetta, Beky Rly.bridge, Dhubri CWC, Dhubri IMD, Cherrapunji (rkm) , Shillong CSO, Ampati, Mannarkkad AWS and Bankura.
7 Oct	15 - Perinthalamanna; 13 - Irikkur; 11 - Puttur HMS; 10 - Ams Kannur, Kannur Airport AWS and Angadipuram; 9 - Napoklu; 8 - Mancompu, Airport Chakka ARG, Varkala and Chandanpur; 7 - Panathur AWS, Barwood, Bangirioposi and Silchar; 6 - Vellathooval AWS, Malampuzha Dam AWS, Balurghat and Udumbannoor AWS; 5 - Punalur, Nilambur AWS, Alathur, Manantoddy, Mani, Uppinangadi, Krishnarajpet, Dholai, Kamalpur and Mangalore/P.bur.
8 Oct	22 - Quilandi; 21 - Buxaduar; 12 - Godda; 11 - Vadakara; 10 Vadakara AWS, Lower Sholayar AWS, Worth Estate Cher, Kundapur and Godda Kvk AWS; 9 - Rajoun and Kozhikode; 8 Irikkur; 7 - Cheruvanchery AWS, Mahe, Varattupallam, Taluk Office Pandalur and Bihar Shrif; 6 - Ramanujganj, Ams Kannur, Kannur Icar AWS, Red Hills, Gajapathinagar, Anini AWS and Kannur Airport AWS; 5 - Kannur, Panniyoor ARG, Tellichery, Kunnamangalam AWS, Munderi AWS, Peechi AWS, Vepur, Hasimara, M M Hills, Chemberi AWS and Mathili.
9 Oct	13 - Ponda, Rameshwar ARG, Sanguem and Kiravatti; 12 - Dabolim N.s.; 11 - Valpoi, Margao and Quepem; 10 - Panjim ; 9 - Mapusa, Alipurduar PTO, Khanitar, Kollur and Hunchadakatte; 8 - Mormugao - Pmo IMD, Mayanur, Majitar, Siddapura, Kadra, Mundgod and Hazuah; 7 - Kankavli, Pwd Makkinampatti, Perambalur, Vellakoil, Chengam, Kumargram, Jagalbet, Jayapura, N R Pura, Tyagarthi, Itanagar, Chauldhowaghat and Kamalpur; 6 - Pwd Vaarappatti, Krishnarayapuram, Panchapatti, Chettikulam, Kalavai PWD, Kotraguda, Siliguri PTO, Murti, Banavasi, Karwar, Londa, Kottigehara, Drf, Melabazar/Matunga, Sulur and Agumbe; 5 - Harnai IMD, Dodamarg, Sawantwadi, Bhum, Mahur, Dindigul, Vedasandur, Thogamalai, Kariyakovil Dam, Avinasi, Koppampatti, Samayapuram, Mawai, Bagdogra IAF, Champasari, Gajoldoba, Neora, Haliyal, Yellapur, Kundgol, Hirekerur, Koppa, Mudigere, Sringeri HMS, Anavatti, Arki, Sahebpur Kanal, Lunding, Goibargaon, N.lak/Lilabari, Hasimara and Haveri E.e.o..
10 Oct	13 - Majuli; 12 - Pwd Makkinampatti and Mathabhanga; 11 - Jhallong and Basirhat (pt) ; 10 - Dangs (ahwa) , Rongo and Kokrajhar; 9 - Alipurduar PTO, Chepan, Jia Bharali N T Xing and Dharwar S.f.; 8 - Shiggaon and Ranni AWS; 7 - Umerpada, Thennala AWS, Pollachi, Nilakottai, Uthiramerur, Kannadaian Anicut, Rsl-3 Anandhapuram, Barobhisha, Gangtok, Pakyong, Belagavi AP, Dharwad HOS, Hubballi, Tamulpur, N.lakhimpur/Lilabari and Tadang; 6 - Roha, Uran, Peth, Perambur, Sholayar, Palar Anicut, Amfu Pundibari, Nagarkata, Pedong, Kalyani Smo, Neamatighat and Sulur; 5 - Sujangarh, Kottarakkara AWS, Kumarakam, Kunnathanam AWS, Venkurinji AWS, Peechi AWS, Vasai, Tala, Radhanagari, Anaimalai Taluk Office, Pillur Dam Mettupalayam, Odanchatram, Perungalur, Salem, Avadi, Puzhal ARG, Red Hills, Owk, Chengmari/Diana, Damthang, Majitar, Sutagatti Mattikoppa, Kundgol, Madhugiri, Tekulapalle, Naharlagun, Ranganadi Nt Xing and Valparai.
11 Oct	13 - Matheran; 11 - Santhamaguluru; 10 - Itanagar; 9 - Chengmari/Diana, Nagarkata, Nayakanahatty, Oyan ARG, Pasighat AP and Naharlagun; 8 - Valod, Gangalur, Madukkur and Neora; 7 - Dolvan, Vyara, Satna Baglan, Kallikudi,

	Singampunari, Karamchedu, Amarapuram, Buxaduar, Kottigehara and Hasimara; 6 - Palsana, Kodinar, Pimpalner, Pudukcherry, Nagudi, Kadaladi, Sirukudi, Ongole, Rolla, Roing, Kamba AWS and Dhemaji; 5 - Gandevi, Mangrol, Mahuva, Panvel ARG, Vaibhavwadi, Ajra, Theerthandathanam, Danishpet, Pwd Travellers Bungalow, Repalle, Gautampura, Murti, Nargund, Kalasa, Tuting AWS, N.lakhimpur/Lilabari, Surat Kvk AWS and Davangire T.o..
12 Oct	18 - Vadakara; 17 - Haveri E.e.o.; 16 - Alapuzha; 15 - Karaikudi; 13 - Trp AP; 11 - Mancompu, Airport Chakka ARG, Poonjar AWS and Trivandrum AP; 10 - Mahe, Neyyattinkara, Kurunthancode, Motala, Malkapur and Peringalkuthu AWS; 9 - Kanjirapuzha ARG, Varkala, Colachel, Jalgaon Jamod, Nandura and Bellur; 8 - Perumkadavila ARG, Lakhnadon, Yelburga, Bhadravathi, Beki Mathungari, Silchar and Kailashahar AP; 7 - Kanjirappally, Anakayam ARG, Thiruvananthapuram, Bhusawal, Soegaon, Erode, Varattupallam, Eraniel, Kadambur, Pandhana, Bhagwanpura, Ilkal, Kudalasangama, Kuknoor, Nagamangala, Hagaribommanahalli, Roing, Matijuri, Lala ARG, Sonari ARG, Kamalpur, Dharmanagar/Panisagar, Kollam Rly and Buldana; 6 - Valia, Quilandi, Parumbikulam, Amalner, Jalgaon - IMD Pt, Sholayar, Kodaikanal, Ammapettai, Adayamadai, Thuckalay, Thirparappu, Theerthandathanam, Edapadi, Orthanad, Watrap, Shegaon, Ongole, Pansemal, Timarni, Khandwa, Pachmarhi, Bilgi (irri.) , Gadag PBO, Kottur, Lakhipur, A P Ghat, Nahar Katia, Melabazar/Matunga, Teliamura ARG, Kadamtala ARG and Mundargi; 5 - Haripad, Tellichery, Ernakulam South, Kochi C.i.a.l., Peermade To, Vaikom, Karipur Ap., Mannarkkad, Kurudamannil, Chimoni ARG, Kodungallur, Pookot, Mahad, Sindkheda, Dahigaon - Fmo, Jamner, Pachora, Sillod, Chinnakalar, Valparai PTO, Kodaikannal Boat Club, Mullanginavillai, Kodanad, Sivaganga, Madathukulam, Tiruchirappalli Junction, Kariyapatti, Telhara, Deolgaon Raja, Sangrampur, Sindewahi, Bhamragad, Anakapalle, Kandukur, Udaigarh, Udainagar, Khirkia-arg, Bailhongal, Lakshmeswar, Guttal, Alamatti HMS, Nayakanahatty, Davanagere, C R Patna, Harapanahalli, Kabu Basti, Hazuah, Gharmura, Alwaye PWD, Perumpavur, Gokak and Davangire T.o..
13 Oct	14 - Tirupuvanam; 12 - Periyapatti, Tallakulam, Rameswaram, Vettikadu and Sivakasi; 11 - Madurai North; 10 - Mettupatti, Thaniamangalam, Ponnaniyar Dam, Aruppukottai Kvk AWS and Kovilankulam; 9 - Udaipur/D- aero, Melur, Pulipatti, Avudayarkoil and Devakottai; 8 - Girva SR, Malia, Harur, Kodaikanal, Viraganur Dam, Tiruchengode, Jawad and Hosapete; 7 - Jhadol SR, Palani, Thirukoilur ARG, Mayanur, Krishnarayapuram, Idayapatti, Kallikudi, Usilampatti, Eraiyur, Padalur, Singampunari, Mannargudi, Pullambadi, Chandua Kuliana, Surat Kvk AWS and Ariyalur; 6 - Jamjodhpur, Jetpur, Chinnakalar, Thondamuthur, Valparai Pap, Valparai Taluk Office, Kodaikannal Boat Club, Tirukoilur, Panchapatti, Ramanathapuram, Musiri, Sirugamani Kvk AWS, Chauri and Muruda; 5 - Dungla SR, Nimbahera, Gogunda SR, Amirgadh, Gandevi, Surat City, Vadia, Tnau Coimbatore, Lakkur, Vadakuthu, Modakkurichi, Kcs Mill-1 Moongilthura, K.paramathi, Chittampatti, Madurai Andipatti, Sholavandan, Gedda, Kinnakora, Chettikulam, Sivaganga, Tirupathur, Samayapuram, Vathalai Anaicut, Thiruchuzhi, Karkala, Bhumuraguri, Kharsema and Balehonnur.
14 Oct	12 - Budalur and Malkapur; 9 - Bhuj, Sakri, Nandgaon, Betul and Ariyalur; 8 - Dasada, Matheran, Karaikal, Ongole, Tada, Badnagar and Coimbatore; 7 - Dangs (ahwa) , Umerpada, Visavadar, Wadhvan, Nilambur, Roha, Sudhagad Pali, Pimpalgaonbaswant ARG, Hindusthan University, Dgp Office, Madurai Andipatti, Sattur, Piploda, Bodeli, Ukai, Coimbatore AWS and Shajapur; 6 - Waghai, Dediapada, Talala, Gondal, Bhadgaon, Dahigaon - Fmo, Ap Peelamedu, Pwd Makkinampatti, Tnau Coimbatore, Vadipatti, Dolariya, Sultanpur, Narmada Kvk AWS and Buldana; 5 - Dungla SR, Jhagadia, Jambughoda, Amreli, Kutiana, Lodhika, Lakhtar, Konta, Khalapur, Pachora, Kalvan, Satna Baglan, Sholinganallur, Pollachi, Valparai Pap, Valparai Taluk Office, Sholavandan, Karaiyur, Rameswaram, Theerthandathanam, Tondi, Ramnadu Kvk AWS, Vattanam, Mulanur, Motala, Nandura, Kandukur, Vinjamur, Sullurpeta, Agar, Susner, Kukshi, Gautampura, Chindwara-aws, Ganjam, Telkoi, Hirekerur, Yagati, Manthani and Dang Kvk AWS.
15 Oct	15 - Kavali; 14 - Addanki; 13 - Kudimiyamalai; 12 - Kandukur and Bilhari; 10 - Gummidipoondi, Ennore AWS and Kodur; 9 - Ponneri and Yanam; 8 - Bagasra, Irikkur, Chennai Collectorate Bu, Sholinganallur, Podili, Atmakur, Nellore and Hadagali; 7 - Ambegaon Ghodegaon, Satyabama Uty ARG, Hindusthan University, Ayanavaram Taluk Office, Chennai (n) , Dgp Office, Perambur, Tnau Coimbatore, Chittampatti, Kallandri, Pulipatti, Srivilliputhur, Repalle, Mundlamuru, Ongole, Vinjamur, Sullurpeta, Kondapuram, Sardarpur and Coimbatore AWS; 6 - Bhanvad, Kokrud, Mahabalipuram, Kolapakkam ARG, Alandur, Chennai AP, Mgr Nagar, Pwd Vaarappatti, Vadakuthu, Nambiyur, Idayapatti, Mettupatti, Sivaganga, Pwd Travellers Bungalow, Madukkur, Uthukuli, Vattamalai Reservoir, Thamaraiappakkam, Muthupet, Amalapuram, Karamchedu, Chimakurthi, Marripudi, Rapur, Penagaluru, Tada, Jhabua-aws and Panambur; 10 - Dhari, Khambhalia, Panniyoor ARG, Vellathooval AWS, Quilandi, Palghar ARG, Kudal, Malvan, Mulde ARG, Ambernath, Ulhasnagar, Karad, Anna University, Anna Uty ARG, Cd Hospital Tondaipet, Chinnakalar, Melur, Periyapatti, Ponnamaravathi, Tondi, Pattukottai, Tirupattur, Kangeyam, Pwd Tiruppur, Uppar Dam, Vellakoil, Ambathur, Chembarambakkam ARG, Puzhal ARG, Poondi, Uthukottai, Sirukudi, Bapatla, Avanigada, Masulipatnam Cdr, Konakanamitla, Udayagiri, Rajampet, Srikalahasti, Chikodi, Chemberi AWS, Taliparamba and Sankalan.
16 Oct	30 - Cholvaram; 28 - Red Hills; 25 - Avadi; 22 - Sullurpeta; 18 - Puzhal ARG and Kavali; 17 - Hindusthan University and Ennore AWS; 16 - Anna Uty ARG, Ayanavaram Taluk Office, Perambur, Ponneri and Thamaraiappakkam; 15 - Anna University, Mgr Nagar, Sholinganallur and Ambathur; 14 - Cd Hospital Tondaipet and Nungambakkam; 13 - Chennai Collectorate Bu, Dgp Office and Nellore; 12 - Alandur, Chennai AP and Tada; 11 - Kolapakkam ARG, Tirupati AP and Kondapuram; 10 - Pwd Tiruppur, Kandukur, Seetharamapuram and Satyavedu; 9 - Kaprada, Sawantwadi, Mahabalipuram, Satyabama Uty ARG, Kcs Mill-2 Kachirayaopa, Manimutharu Dam PWD, Chembarambakkam, Gummidipoondi, Poonamallee, Uthukottai, Tiruvallur, Udayagiri, Vinjamur, Porumamilla, Kundapur, Bengaluru HAL AP and Ksndmc Campus; 8 - Wakwali ARG, Bhuvanagiri, Koratur, Rsl-2 Koliyanur, Rsl-2 Valavanur, Penagaluru, Nagari, Srikalahasti, Thottambedu, Venkatagiri and Kodur; 7 - Kundrathur, Uthangarai, Tiruppur South, Pallipattu, Pullampeta, Pithampur, Yedwad, Bengaluru City, Hesaraghatta, Bellur, Dhubri CWC and Tambaram Aerodro; 6 - Valpoi, Kelambakkam, Thiruppurur, Collectorate, Me Mathur, Virudachalam, Siperumbudur, Kelavarapalli Dam, Kodanad, Kil Kotagiri Estate, Dc Office Tiruppur, Chembarambakkam ARG, Poondi, Pullambadi, Vilupuram, Rapur, Sambepalle, Umarvan, Joshipur and Gubbi; 5 - Jawhar, Mokhedra - Fmo, Sangameshwar Devrukh, Kankavli, Rameshwar ARG, Surgana, Kadegaon, Kokrud, Kattumayilur, Lalpet, Vepur, Modakkurichi, Paiyur AWS, Chettikulam, Padalur, Tirupattur, Tiruttani PTO, Chimakurthi, Marripudi, Gurramkonda, Kalakada, Rajampet, Royachoti, Cuddapah, Duvvur, Car Nicobar, Durgapur,

	Kalaburgi, Rayalpadu, Kunigal, Wargal, Khandala, Tiruthani and Dharwar S.f.
17 Oct	14 - Kodur; 11 - Margao and Durgapur; 10 - Ponda and Pullampeta; 9 - Pernem, Penu Konda, Davanagere, Gambhiraopet and Davangire T.o.; 8 - Nandikotkur, Ramagiri, Burnpur, Luchipur and Maheshpur; 7 - Kozhikode, Mulde ARG, Sawantwadi, Harsul - Fmo, Nellore, Penagaluru, Rajampet, Jupadu Bungalow, Chenne Kothapalle, Gorantla, Nallamada, Srikalahasti, Tirupati AP, Venkatagiri, Mangaluru AP, Haveri Apmc, Chitradurga, Y N Hoskote and Haveri E.e.o.; 6 - Kankavli, Kudal, Shirala, Vattanam, Visakhapatnam, Royachoti, Srisailam, Dharmavaram, Obuladevaracheruvu, Thottambedu, Atlur, Nagarkata, Tantloi, Jangipur, Kundapur, Kalghatgi, Hirekerur, Hunsur, Tenughat, Machareddy and Mustabad; 5 - Mendarda, Kotdasangani, Mapusa, Malvan, Bhor, Tondi, Narsapuram, Kambadur, Sambepalle, Devanakonda, Dornipadu, Amarapuram, Cuddapah, Kamalapuram, Vallur, Nasrullahganj, Asansol, Kiravatti, Shiggaon, Messenior, Hazaribagh Kvk AWS, Alampur, Karimnagar, Kollapur, Ongole and Shirali.
18 Oct	15 - Nayakanahatty; 12 - Luchipur; 9 - Rameshwar ARG and Sindhanur; 8 - Haliyal; 7 - Kankavli, Vaibhavwadi, Arani, Pakala, Kamalapuram, Tusuma and Devgad; 6 - Rajapur, Mulde ARG, Settur, Kadiri, Chauri, Hukkeri, Maharo and Shella; 5 - Kudal, Sawantwadi, Tasgaon, Kothagiri, Wallajah, Katpadi, Cuddapah, Balaghat-aws, Hinjili and Narayanpur.
19 Oct	17 - Kalasapakkam; 14 - Baripada; 11 - Bhadgaon; 10 - Arantangi; 9 - Usilampatti; 8 - Peravurani, Rsc1-3 Avalurpettai and Thottambedu; 7 - Songadh, Pachora, Satna Baglan, Soegaon, Viralimalai, Adirampatnam, Ponneri, Thuvakudi Imti, Vinjamur, Srikalahasti, Suliapada, Nayakanahatty and Nagamangala; 6 - Vandsa, Surgana, Dharmapuri PTO, Alangudi, Ayinkudi, Gangavalli, Devakottai, Tirupuvanam, Uthukottai, Basirhat (pt) , Kawadimatti ARG, Narayanpur HMS, Bargur, Thoubal, Vapi, Mangan and Dharmapuri; 5 - Dangs (ahwa) , Navsari, Mahuva, Valsad Kvk AWS, Peermade To, Chalisgaon, Gargoti/Bhudargad, Girmadam - Fmo, Trimbakshwar, Perungalur, Gummidipoondi, Arani, Thiruthuraipoondi, Lakkireddipalle, Chenne Kothapalle, Tadimarri, Phiringia, Samakhunta, Sevoke, Kakkeri, Hesarghatta, Silvassa, Sankalan and Dahanu.
20 Oct	13 - Partur; 12 - Mudhole; 11 - Sathiar and Pandhurna; 10 - Mendarda, Patoda, Udayagiri, Godadongri and Shimoga; 9 - Khultabad, Magadi and Kallakurichi; 8 - Lalpur, Chandwad, Satna Baglan, Madurai Andipatti, Jatni, Gyalsing PTO, Hoskote and Nanded; 7 - Umerpada, Malia, Mahad, Phulambri, Sambhajinagar-imd, Mantha, Dharmabad, Selu, Vadipatti, Arcot, Kondapuram, Sendhwa (med) , Gogawan, Jhirnya, Khordha PTO, Gop, Bellur, Kolasib ARG and Akola (aws) ; 6 - Anklay, Bayar AWS, Devla, Jafrabad, Ambad, Naigaon Khaigaon, Kallakurichi ARG, Sankarapuram, Pambar Dam, Elumalai, Pulipatti, Kaveripakkam, Lalgudi, Guntur, Chimakurthi, Bhimpur, Pipili, NR Pura, Tarikere and Keshod AP; 5 - Padra, Vadodara, Kapra, Thenmala ARG, Murbad, Chalisgaon, Mulher - Fmo, Soegaon, Vaijapur, Lohara, Vasmat, Thirupporur, Worth Estate Cher, Panapakkam, Ranipet, Ammundi, Arvi, Ashti, Malegaon, Parvathipuram, Konakanamitla, Vinjamur, Sondwa, Atner, Bhikangaon, Kantapada, Golamunda, Pattamundai, Aurad, Bhadravathi, Wankdi, Bheemgal, Kolasib AWS, Car Nicobar IAF, Alirajpur, Akola and Porto Novo.
21 Oct	15 - Mettur Dam; 12 - Lodhika and Udumalpet; 11 - Thirumoorthi Dam, Kadra and Sadasivanagar; 10 - Theni Andipatti, Thirumoorthy Ib and Shiggaon; 9 - Malia, Morbi, Kelavarapalli Dam, Dc Office Tiruppur and Kundapur; 8 - Mendarda, Anayirankal Dam AWS, Vadakkancherry, Valparai PTO, Pwd Tiruppur, Mundgod, Hirekerur and Honnali; 7 - Vadia, Vellathooval AWS, Lower Sholayar AWS, Daund, Chinnakalar, Valparai Pap, Valparai Taluk Office, Modakkurichi, Tallakulam, Mohanur, Maniyachi, Kandukur, Karwar, Chitradurga, Anavatti, Belikeri, Keshod AP and Shimoga; 6 - Kalavad, Ranavav, Tokapal, Cherthala, Peechi AWS, Canacona, Ashti, Himayatnagar, Aliyar, Pwd Vaarappatti, Sholavandan, Attur, Vaigai Dam, Amadagur, Paralakhemundi, Kakatpur, Honavar, Kiravatti, Bengaluru City, Sravanabelagola, Hunchadakatte, Linganamakki HMS, Quepem, Dabolim N.a.s. and Davangire T.o.; 5 - Kadi, Kalyanpur, Junagadh, Thangadh, Munnar Kseb, Pampadumpara AWS, Kollamkode, Kollengode AWS, Karjat ARG, Pen, Dodamarg, Mulde ARG, Ambernath, Kavundapadi, Madurai South, Madurai North, Usilampatti, Omalar, Manjalar, Bodinaickanur, Manjalar, Kalakadu, Amaravathy Dam, Santhamaguluru, Pathapatnam, Tanakal, Gosani, Digapahandi, K Nuagaon, Astaranga, Siddapura, Banavasi, Siddapur, Kalghatgi, Jayapura, B Durga, Nayakanahatty, Krishnarajasagara, Srirangapatna, Kunigal, Mulakalapalle, Yercaud and Periakulum.
22 Oct	14 - Ksndmc Campus; 13 - Nayakanahatty; 10 - Ramagiri; 9 - Tiruvapur, Kalyandrug, Chenne Kothapalle and Penu Konda; 8 - Wakwali ARG, Dharmavaram, Hindupur, Mundgod and Tyagarthi; 7 - Chinnakalar, Kambadur, Madanapalle, Amadagur, Lepakshi, Gogawan and Maya Bandar; 6 - Kamrej, Dindori, Tiruppoondi, Atmakur, Bathalapalle, Madakasira, Tadimarri, Kondapuram, Chitaguppa, Gadag PBO, Chikballapura, Jeur and Mettur Dam; 5 - Sayla, Karjat ARG, Karjat, Valparai Pap, Valparai Taluk Office, Trp Town, Lonar, Narsipatnam, Raptadu, Rayadurg, Agali, Gorantla, Obuladevaracheruvu, Lokapur, Gadag AWS, Kadur, Parasurampura, Krishnarajpet, Sira, Julurpad, Naga Reddipet, Konijerla, Ramayampet, Peddapalle, K.paramathi and Kolar G.f..
23 Oct	9 - Ap Peelamedu and Port Blair; 7 - Sholayar, Valparai Pap, Valparai Taluk Office, Natham, Shencottah, Kundadam, Pwd Tiruppur, Manapparai, Bellur, Coimbatore AWS and Coimbatore; 6 - Vadgaon Malval, Periyanaickenpalayam, Gobichettipalayam, Mandapam, Udumalpet, Amarapuram, Krishnarajpet, Uthagamandalam AWS and Chintamani; 5 - Malampuzha Dam AWS, Kankavli, Tnau Coimbatore, Kamatchipuram, Vedasandur, Peraiyur, Tallakulam, Manalmedu, Keeranur, Sivagiri, Thekkadi, Koppampatti, Madakasira, Bargur, Suryapet and K R Nagara.
24 Oct	12 - Thuckalay, Kelavarapalli Dam and Idamalayar Dam AWS; 11 - Kovilpatti; 10 - Sankarapuram, Krishnagiri, Ambur and Rupouli; 9 - Mavelikara, Nooranad AWS, Bhavanisagar, Maheshpur and Katihar; 8 - Kalamassery AWS; 7 - Kayamkulam, Pampadumpara AWS, Kottarakkara AWS, Thenmala ARG, Pwd Makkinnampatti, Valparai PTO, Hogenekal, Anaikedanku, Mambzhathuraiyaru, Thirparappu, Barur and Vaniyambadi; 6 - Thodupuzha, Konni, Perumkadavila ARG, Enamakkal, Cincona, Adayamadai, Jambukuttapatti, Vadapudupattu, Paradeep Cwr, Labpur, Bengaluru HAL AP, C R Patna and Urumi AWS; 5 - Punalur, Mannarkkad, Kurudamannil, Thattathumala AWS, Pirappancode AWS, Lower Sholayar AWS, Vaibhavwadi, Palacode, Sathyamangalam, Dscl Virugavoor, Manimutharu Dam PWD, Kozhiporvilai, Nagercoil, Denkanikottai, Nedungal, Krp Dam, Pambar Dam, Penucondapuram, Attur, Danishpet, Sothuparai, Kadambur, Chandbali, Sri Niketan, Jangipur, Borio and Alwaye PWD.
25 Oct	16 - Chandbali and Rajkanika; 15 - Anaimaduvu Dam; 14 - Nawana; 13 - Orthana; 11 - Kozhiporvilai, Thuckalay, Aduthurai AWS, Mannargudi, Oupada, Marsaghai and Basudevur; 10 - Suthamalli Dam, Eraniel, Kodavasal and

	Rajnarar; 9 - Manjalaru, Needamangalam, Mohakalapada, Diamond Harbour, Kalaikunda (Iaf) , Amfu Kharagpur, Mannarkkad AWS and Sagar Island; 8 - Parangipettai, Colachel, Idayapatti, Mayiladuthurai, Tirupuvanam, Nannilam, Tiruvavar, Paradeep Cwr, Aul and Durgachack; 7 - Mannarkkad, Ariyalur, Natham, Kurunthancode, Mylaudy, Kumbakonam, Budalur, Lower Anaicut, Tiruvaiyaru, Thiruvidaimaruthur, Vettikadu, Balasore, Nilgiri, Jajpur PTO, Derabis, Kendrapara, Pattamundai, Uluberia, Jhargram PTO, Mohanpur, Dharmasthala, Belthangadi, Gurabandha, Bhadrak and Kendrapada PTO; 6 - Bhoothapandy, Adayamadai, Anaikedanku, Balamore, Mambzhathuraiyaru, Perunchani Dam, Kallandri, Sembanarkoil PWD, Keeranur, Karaikudi, Valangaiman, Nh5 Gobindpur, Soro, Binjharpur, Jajpur, Kusumi, Udala, Amfu Kakkwip, Midnapore (CWC) and Tihidi; 5 - Kanjirapuzha ARG, Mettupalayam, Collectorate, Mullanginavillai, Nagercoil, Puthan Dam, Suralacode, Thirupathisaram AWS, Airport Madurai, Mettupatti, Nagapattinam, Chettikulam, Padalur, Perambalur, Thaluthalai, Veppanthattai, Gandarvakottai, Illuppur, Ayyampettai, Neivasal Thenpathi, Thanjavur PTO, Ponmalai, Nandhiyar Head, Sirugamani Kvk AWS, Trp AP, Tiruchirappalli Junction, Talcher, Bahanga, Jaipur, Remuna, Akhuapada, Bari, Garadapur, Bijatala, Rairangpur, Ranpur, Mankar and Midnapore.
26 Oct	24 - Oupada; 21 - Khaira, Bhandaripokhari and Dhamnagar; 19 - Nawana and Bonth; 17 - Chandbali and Barrackpur (Iaf) ; 16 - Bhadrak; 15 - Bari, Rajkanika and Harinkhola; 14 - Nilgiri, Jajpur, Jajpur PTO, Udala and Tihidi; 13 - Akhuapada; 12 - Aul, Durgachack, Alipore and Sagar Island; 11 - Chittampatti, Remuna, Binjharpur, Uluberia, Amtala, Kalyani Smo, Panagarh (IAF) , Diamond Harbour, Midnapore, Midnapore (CWC) and Mohanpur; 10 - Soro, G B Nagar, Kaptipada, Dum Dum, Mo Saltlake, Burdwan PTO and Kalaikunda (Iaf) ; 9 - Colachel, Idayapatti, Usilampatti, Balasore, Nh5 Gobindpur, Ghasipura, Chandanpur, Gheropara, Lalgarh, Mankar, Manteswar and Basudevpur; 8 - Bhoothapandy, Kuppanampatti, Sholavandan, Bahanga, Jaipur, Chandikhol, Derabis, Betanati, Balimundali, Kusumi, Sri Niketan, Debagram, Canning, Amfu Kharagpur and Maheshpur; 7 - Kanjirapuzha ARG, Airport Chakka ARG, Dindigul, Nilakottai, Adayamadai, Kallandri, Madurai South, Madurai North, Periyapatti, Tallakulam, Uppar Dam, Nischintakoili, Kendrapara, Pattamundai, Anandpur, Hatadihi, Samakhunta, Bankura (CWC) , Labpur, Suri PTO, Mangalkote, Kendrapada PTO, Pakuria and Suri; 6 - Varkala, Thiruvananthapuram, Anaikedanku, Balamore, Chittar, Kuzhithurai, Kurunthancode, Mambzhathuraiyaru, Nagercoil, Thuckalay, Puthan Dam, Perunchani Dam, Madurai Andipatti, Srivilliputhur, Mahanga, Kujanga, Danagadi, Korei, Garadapur, Bangiriposi, Bijatala, Joshipur, Tilpara Barrage, Jhargram PTO, Durgapur, Amfu Kakkwip, Mannarkkad AWS and Trivandrum AP; 5 - Peermade To, Paripalli AWS, Thenmala ARG, Mannarkkad, Neyyattinkara, Valparai PTO, Perundurai, Eraniel, Kozhiporvilai, Mettupatti, Kilanilai, Ilayangudi, Kodumudiyaru Dam, Nanguneri, Nalumukku, Jenapur, Sukinda, Marsaghai, Rajnagar, Jamsolaghat, Muruda, Sarasakana, Bankura, Kansabati Dam, D.p.ghat, Jangipur, Maithon Dvc, Kollam Rly, Baripada and Asansol.
27 Oct	13 - Peermade To; 11 - Minicoy; 8 - Kamudhi and Sadar Munger; 7 - Mylaudy and Thuckalay; 6 - Aryankavu and Gopalpur; 5 - Kanjirapuzha ARG, Vannamada AWS, Kozhiporvilai, Nagercoil, Mudukulatur and Pirpaiti.
28 Oct	12 - Parvathipuram; 8 - Nischintakoili; 7 - Jiyyamma Valasa; 5 - Bissem-cuttack.
29 Oct	11 - Banarpal; 7 - Panjim , Odagaon and Dhamnagar; 6 - Ernakulam South and Thritle; 5 - Purushottampur.
30 Oct	7 - Gunupur, Neamatighat and Vedaranniyam; 6 - Khanitar and Beki Mathungari; 5 - Lamataput, Chepan, Nagarkata and Chitrakunda K Guma.
31 Oct	9 - Ayanavaram Taluk Office; 7 - Karaikal and Gangtok; 6 - Barur, Nedungal, Khanapur and Srijangram ARG; 5 - Bijapur, Rajapur, Chennai (n) , Vadapudupattu, Rajnagar, Harapanahalli, Nalgonda, Bameng Circle AWS, Amraghat and Majuli.
1 Nov	11 - Kil Kotagiri Estate; 10 - Worth Estate Cher; 9 - Periyanaickenpalayam, Mettupalayam, Thuckalay, Ponda, Devgad and Shirali; 8 - Anaikedanku, Mambzhathuraiyaru and Attur; 7 - Vellanikkara, Usilampatti, Rasipuram, Needamangalam, Mapusa, Mormugao - Pmo IMD and Falakata; 6 - Mannarkkad, Pillur Dam Mettupalayam, Valparai PTO, Adayamadai, Manamalkudi, Mannargudi, Muthupet and Sanguem; 5 - Kailashahar AP, Malampuzha Dam AWS, Mangalam Dam AWS, Palakkad, Laha AWS, Pirappancode AWS, Thirparappu, Nagapattinam, Pwd Tiruppur, Tiruppur South, Belthangadi, Siddapura, Udipi, Valpoi, Kudal, Bijapur, Alipurduar PTO and Sullur.
2 Nov	7 - Ayikudi and Periyar; 6 - Ramanathapuram; 5 - Chinnakalar, Rsl-2 Kedar, Aswaraopeta and Car Nicobar IAF.
3 Nov	16 - Kottaram; 14 - Alakarai Estate, Coonoor PTO, Kil Kotagiri Estate, Kothagiri and Coonoor; 13 - Kanyakumari and Adar Estate; 12 - Laha AWS, Billimalai Estate, Burliar and Sothuparai; 11 - Mylaudy; 10 - Puthan Dam, Perunchani Dam, Suralacode, Thuckalay, Kalamassery AWS and Chalakudi; 9 - Kurunthancode; 8 - Anayirankal Dam AWS, Chimoni ARG and Balamore; 7 - Myladumpara ARG, Neyyattinkara, Pillur Dam Mettupalayam, Adayamadai, Vadipatti, Kodanad, R.s.mangalam, Periyar, Navalur Kottapattu and Vathalai Anaicut; 6 - Kochi C.i.a.l., Venkuringi AWS, Kodaikannal Boat Club, Anaikedanku, Chittar, Colachel, Mambzhathuraiyaru, Thirparappu, Sholavandan, Mudukulatur, Valinokam and Thekkadi; 5 - Alwaye PWD, Kochi IAF, Ponnani, Konni, Airport Chakka ARG, Trivandrum AP, Thattathumala AWS, Mettupalayam, Parangipettai, Erode, Kunderipallam, Eraniel, Kannimar, Kuzhithurai, Kozhiporvilai, Mukkadai Dam, Mullanginavillai, Mettupatti, Geddai, Kinnakorai, Karaiyur, Viralimalai, Manamadurai and Chandur.
4 Nov	12 - Pillur Dam Mettupalayam; 11 - Coonoor PTO; 9 - Adar Estate, Billimalai Estate and Coonoor; 8 - Mavelikara, Burliar and Bellur; 7 - Enadimangalam AWS and Alakarai Estate; 6 - Thuckalay, Gedda, Kinnakorai and Kothagiri; 5 - Aralam AWS, Perumpavur, Ulanad AWS, Rameswaram, Rsl-3 Avalurpettai, Dharmasthala and Mani.
5 Nov	9 - Udumbannoor AWS; 8 - Pillur Dam Mettupalayam, Adayamadai and Kottayam; 7 - Mancompu, Mullanginavillai and Kil Kotagiri Estate; 6 - Coonoor PTO, Karkala, Coonoor and Sullur; 5 - Angadipuram, Perinthalamanna, Ottapalam, Neyyattinkara, Perumkadavila ARG, Thiruvananthapuram, Kurunthancode, Adar Estate and Alakarai Estate.
6 Nov	7 - Chavara AWS and Laha AWS; 6 - Kurudamanni; 5 - Lembuchhera, Thiruvananthapuram and Port Blair.
7 Nov	9 - Mancompu and Ponneri; 7 - Karaikal; 5 - Sholinganallur, Avadi, Gummidipoondi and Sullurpetta.
8 Nov	9 - Mattanchery AWS, Sembanarkoil PWD and Velankanni; 7 - Thirparappu and Sirkali; 6 - Ambathur; 5 - Perambur, Vadasandur, Sriperumbudur, Thuckalay and Long Island.
9 Nov	9 - Kunnathanam AWS, Adayamadai, Kozhiporvilai, Thuckalay and Kodiayakarai; 6 - Punalur, Konni, Balamore, Eraniel, Kurunthancode, Mannargudi and Tiruvavar; 5 - Kanjirappally, Kottayam, Mullanginavillai, Sivalogam (chittar li) ,

	Ayinkudi, Orthanad and Needamangalam.
10 Nov	Nil.
11 Nov	Nil.
12 Nov	6 - Alandur and Chennai AP; 5 - Anna University, Anna Uty ARG, Taramani ARG, Sholinganallur, Kavali, Sullurpeta and Ennore AWS.
13 Nov	14 - Sirkali and Kollidam; 12 - Puducherry; 8 - Jayamkondam; 7 - Sendurai, Lalpet, Manalmedu, Gummidipoondi and Gudur; 6 - Chidambaram, Annamalai Nagar, Chidambaram AWS, K.m.koil, Collectorate, Tarangambadi, Lower Anaicut, Thamarapakkam, Kavali, Nellore and Rapur; 5 - Cuddalore, Vadakuthu, Anaikendanku, Mambzhathuraiyaru, Rsl-2 Valavanur, Pullampeta and Tada.
14 Nov	9 - Vedaranniyam; 8 - Nalumukku and Oothu; 7 - Periya Kalapet ARG, Kakkachi, Manjolai and Kavali; 6 - Kalakadu, Ongole and Penagaluru; 5 - Satyabama Uty ARG, Sholinganallur, Atmakur and Kandukur.
15 Nov	10 - Nalumukku and Oothu; 9 - Kakkachi; 8 - Vadakuthu and Manjolai; 7 - Kuppady and Kollidam; 6 - Collectorate, Gummidipoondi, Tiruchendur, Srialahasti and Thottambedu; 5 - Thodupuzha, Perambur, Chittar, Karaikal, Gandarvakottai, Kulasekarapattinam, Vilupuram, Dharmasthala, Puttur HMS, Kalasa, Sawantwadi, Sanguem, Quepem, Kandukur, Tirupati AP and Nagapattinam.
16 Nov	15 - Kayamkulam; 12 - Nalumukku; 11 - Oothu; 10 - Nilambur AWS and Kakkachi; 9 - Nilambur and Manjolai; 8 - Cherthala; 7 - Mavelikara and Kozhikode; 5 - Annamalai Nagar, Chidambaram AWS and Kothavacherry.
17 Nov	11 - Nalumukku; 10 - Oothu and Tirupati AP; 9 - Vanamadevi and Vettikadu; 8 - Collectorate, Budalur and Kakkachi; 7 - Cuddalore, Panruti, Src Kudithangi, Manjolai and Amaravathy Dam; 6 - Satyabama Uty ARG, K.m.koil, Papanasam, Marakkanam and Rsl-3 Semmedu; 5 - Sholinganallur, Lalpet, Odanchatram, Gadana Dam, Theni Andipatti, Cheyyar, Pullambadi, Gingee and Tindivanam.
18 Nov	19 - Vedaranniyam; 15 - Kodiayakarai; 10 - Thiruthuraipoondi; 7 - Cherthala and Thalaigayner; 6 - Choondy AWS, Minicoy and Karaikal; 5 - Nagapattinam, Velankanni, Pamban, Sulya and Piravam.
19 Nov	10 - Vedaranniyam; 9 - Kodiayakarai; 8 - Velankanni; 7 - Sembanarkoil PWD, Kakkachi, Nalumukku and Oothu; 6 - Tirupoondi, Pattukottai and Nannilam; 5 - Mayiladuthurai, Echanviduthi, Peravurani, Manjolai, Needamangalam and Thiruthuraipoondi.
20 Nov	17 - Nalumukku; 15 - Kodiayakarai and Oothu; 14 - Kakkachi; 13 - Tirupoondi; 11 - Thirukuvalai; 10 - Minicoy, Ramanathapuram, Manjolai and Vedaranniyam; 9 - Thalaigayner; 8 - Velankanni and Paramakudi; 7 - Vaikkom AWS and Valinokam; 6 - Theerthandathanam, Kalakadu, Nanguneri, Tuticorin and Piravam; 5 - Kumarakam, Mylaudy, Karaikal, Kadaladi, Vattanam, Cheranmahadevi, Manimutharu, Kannadaian Anicut, Thiruthuraipoondi, Kayalpattinam and Tiruchendur.
21 Nov	44 - Rameswaram; 34 - Thangachimadam; 28 - Pamban; 27 - Mandapam; 17 - Kodiayakarai; 13 - Ramanathapuram; 12 - Vedaranniyam; 11 - Velankanni; 10 - Tirupoondi; 9 - Karaikal, Nagapattinam and Thiruthuraipoondi; 8 - Thirukuvalai; 7 - Kadaladi, Valinokam and Tiruvavur; 6 - Thalaigayner, Muthupet, Surangudi and Tiruchendur; 5 - Tarangambadi, Kamudhi, Mudukulatur, Pallamorkulam, Gadana Dam, Madukkur, Nalumukku, Oothu, Mannargudi, Pandavaiyar Head and Vaippar.
22 Nov	6 - Ramanathapuram and Tiruchendur; 5 - Mandapam and Thangachimadam.
23 Nov	Nil.
24 Nov	Nil.
25 Nov	Nil.
26 Nov	7 - Car Nicobar; 6 - Car Nicobar IAF; 5 - Karaikal, Tarangambadi, Port Blair and Hut Bay.
27 Nov	18 - Kodiayakarai, Nagapattinam and Velankanni; 14 - Tirupoondi; 13 - Thirukuvalai; 12 - Tiruvavur and Vedaranniyam; 11 - Cheyyar, Mahabalipuram, Vadakuthu, Sirkali, Tarangambadi, Thalaigayner and Marakkanam; 10 - Cuddalore, Collectorate, Karaikal, Mayiladuthurai, Kollidam, Nannilam and Thiruthuraipoondi; 9 - Ayyampettai, Madukkur, Mannargudi, Needamangalam and Muthupet; 8 - Thirukalukundram, Annamalai Nagar, Manalmedu, Ayinkudi, Adirampattinam, Orthanad, Pattukottai, Vettikadu, Red Hills, Ennore AWS and Mylam AWS; 7 - Taramani ARG, Chidambaram AWS, Parangipettai, Vanamadevi, Sembanarkoil PWD, Puducherry, Nagudi, Lower Anaicut, Manjalaru, Peravurani, Neivasal Thenpathi, Avadi, Puzhal ARG, Kodavasal, Pandavaiyar Head, Valangaiman and Vilupuram; 6 - Anna University, Anna Uty ARG, Alandur, Chennai AP, Perambur, Sholinganallur, Chidambaram, K.m.koil, Src Kudithangi, Avudayarkoil, Thangachimadam, Thiruvidaimaruthur, Cholavaram, Vanur and Tambaram Aerodro; 5 - Jayamkondam, Suthamalli Dam, Satyabama Uty ARG, Ayanavaram Taluk Office, Chennai (n) , Dgp Office, Chennai Collectorate Bu, Mgr Nagar, Bhuvanagiri, Lalpet, Panruti, Sethiathope, Srimushnam, Periya Kalapet ARG, Pamban, Rameswaram, Theerthandathanam, Vattanam, Kumbakonam, Echanviduthi, Budalur, Kurungulam, Thanjai Papanasam, Thanjavur, Nalumukku, Ambathur, Ponneri, Rsl- 2 Mundiampakkam, Rsl-2 Koliyanur, Rsl-2 Valavanur and Karambakudi.
28 Nov	5 - Kodiayakarai, Nagapattinam, Thirukuvalai, Velankanni, Tirupoondi, Thiruthuraipoondi and Vedaranniyam.
29 Nov	6 - Dgp Office and Chennai Collectorate Bu; 5 - Anna Uty ARG and Cd Hospital Tondaipet.
30 Nov	13 - Ennore AWS; 9 - Cd Hospital Tondaipet and Sholinganallur; 8 - Chennai (n) and Ponneri; 7 - Anna Uty ARG, Dgp Office, Chennai Collectorate Bu and Hindusthan University; 6 - Satyabama Uty ARG, Anna University, Mgr Nagar, Avadi, Puzhal ARG and Sullurpeta; 5 - Kolapakkam ARG, Ayanavaram Taluk Office, Alandur, Chennai AP, Taramani ARG, Perambur, Gummidipoondi, Poonamalle ARG, Red Hills, Chikiti, Tada and Tirupati AP.
1 Dec	51 - Mylam AWS; 48 - Puducherry; 37 - Tindivanam; 35 - Rsl-2 Nemoor; 32 - Rsl Vallam; 31 - Rsl-3 Semmedu; 28 - Rsl-2 Koliyanur and Rsl-2 Valavanur; 27 - Vilupuram; 25 - Gingee and Rsl-2 Kedar; 24 - Marakkanam, Rsl-2 Soorapattu, Rsl-3 Valathy and Vanur; 23 - Cuddalore and Rsl-3 Avalurpettai; 22 - Chetpet; 21 - Collectorate, Uthiramerur, Jamunamarathur and Rsl-3 Anandhapuram; 20 Chengalpattu, Maduranthagam, Gummidipoondi and

	Keelpennathur; 19 - Thirukalukundram, Vanamadevi and Avadi; 18 - Arcot, Arani and Basl Mugaiyur; 17 - Sullurpeta and Src Kudithangi; 16 - Thirukoilur ARG, Thamaraiyapakkam, Kalasapakkam, Vandavasi, Rsl-2 Kanjanur and Tambaram Aerodro; 15 - Tada, Cheyyur, Ayanavaram Taluk Office, Mgr Nagar, Kancheepuram, Kalavai PWD, Wallajah, Thandarampettai, Rsl-2 Mundiampakkam and Kallakurichi; 14 - Mahabalipuram, Panruti, Kallakurichi ARG, Arakonam, Sholingur, Yercaud, Pallipattu, Cheyyar and Vembakkam; 13 - Nagari, Dsl Madampoondi, Sriperumbudur, Walajabad, Kaveripakkam, Palar Anicut, Minnal, Panapakkam, Chembarabakkam, Koratur, Red Hills, R.k.pet, Poondi, Tiruvallur, Uthukottai and Basl Manampoondi; 12 - Kodur, Kolapakkam ARG, Dsl Kalayanallur, Dsl Thirupalapandal, Tirukoilur, Cholvaram and Ambathur; 11 - Satyavedu, Venkatagiri, Alandur, Chennai AP, Chennai Collectorate Bu, Chennai (n) , Perambur, Sholinganallur, Kattumayilur, Basl Manalurpet, Dsl Virugavoor, Sankarapuram, Ulundurpet, Kundrathur, Ammoor (walajah Railway, Ponneri, Tiruttani PTO, Vellore and Tiruthani; 10 - Palasamudram, Cd Hospital Tondaipet, Dgp Office, Ariyalur Camp Area, Dsl Thiyaadurgam, Alangayam, Poonamallee, Thiruvalangadu, Ponnai Dam and Ammundi; 9 - Rapur, Srialahasti, Tirupati AP, Thottambedu, Ulanad AWS, Thirupporur, Anna University, Anna Uty ARG, Kuppanatham, Virudachalam, Virudhachalam Kvk AWS, Harur, Dsl Eraiyur, Dsl Rishivandhiyam, Kcs Mill-1 Kadavanur, Pambar Dam, Ranipet, Attur, Chembarabakkam ARG, Puzhal ARG, Chengam and Katpadi; 8 - Nellore, Me Mathur, Vadakuthu, Kcs Mill-1 Moongilthura, Manimutharu Dam PWD, Veeraganoor, Tirupathur PTO, Vadapudupattu, Virinjipuram AWS and Scs Mill Arasoor; 7 - Enadimangalam AWS, Kelambakkam, Hindusthan University, Satyabama Uty ARG, Kurinipadi, Parangipettai, Srimushnam, Vepur, Pappireddipatti, Uthangarai, Kollidam, Rasipuram, Thammampatty, Ennore AWS, Polur, Tiruvannamalai and Scs Mill Thiruvannainal; 6 - Amalapuram, Sendurai, Annamalai Nagar, Lakkur, Mangalapuram, Anaimaduvu Dam, Gangavalli, Kariyakovil Dam, Vazhapadi, Tnau Cri Yethapur and Konni; 5 Yanam, Rajampet, Chittoor, Laha AWS, Taramani ARG, Chidambaram, K.m.koil, Kilacheruvai, Sethiathope, Tozhudur, Dharmapuri PTO, Kcs Mill-2 Kachirayaopa, Penucondapuram, Namakkal, Puduchatram, Sendamangalam, Perambalur, Thaluthalai, Veppanthattai, Salem, Ambur, Tirupattur, Vaniyambadi, Melalathur, Hut Bay and Dharmapuri.
2 Dec	50 - Uthangarai; 42 - Rsl-2 Kedar; 38 - Rsl-2 Soorapattu; 35 - Vilupuram; 33 - Harur; 32 - Dsl Thirupalapandal, Rsl-2 Koliyanur and Rsl-2 Mundiampakkam; 31 - Dsl Madampoondi; 30 - Basl Mugaiyur and Rsl-2 Valavanur; 29 - Basl Manampoondi, Rsl-2 Kanjanur and Rsl-2 Nemoor; 26 - Tirukoilur; 25 - Jambukuttapatti; 24 - Yercaud; 23 - Dsl Eraiyur and Jamunamarathur; 21 - Basl Manalurpet and Pambar Dam; 20 - Pappireddipatti, Barur and Thandarampettai; 19 - Kodungallur, Sankarapuram and Penucondapuram; 18 - Kottayam and Kallakurichi; 17 - Kurudamannil, Dsl Kalayanallur and Rsl-3 Anandhapuram; 16 - Kanjirappally, Panruti, Dharmapuri PTO, Tiruvannamalai, Konni, Ranni AWS and Dharmapuri; 15 - Haripad, Kochi C.i.a.l., Peermade To, Vanamadevi, Dsl Rishivandhiyam, Kcs Mill-1 Moongilthura, Ulundurpet, Kariyakovil Dam and Keelpennathur; 14 - Perumpavur, Kattumayilur, Dsl Virugavoor and Nedungal; 13 - Aluva AWS, Alwaye PWD, Laha AWS, Ariyalur Camp Area and Kcs Mill-1 Kadavanur; 12 - Cherthala, Thycauttussery AWS, Kunnathanam AWS, Me Mathur and Vepur; 11 - Kalamassery AWS, Src Kudithangi, Pennagaram, Dsl Thiyaadurgam, Kcs Mill-2 Kachirayaopa, Manimutharu Dam PWD, Krishnagiri, Paiyur AWS and Rsl-3 Semmedu; 10 - Sethiathope, Krp Dam, Anaimaduvu Dam, Danishpet and Omalur; 9 - Pelandurai, Hogenekal, Kallakurichi ARG and Gomugi Dam PWD; 8 - Yanam, Kumarakam, Konni ARG, Bhuvanagiri, Palacode, Denkanikottai, Tnau Cri Yethapur, Vaniyambadi and Vadapudupattu; 7 - Piravam, Kozhikode, Vaikom, Chidambaram, Kilacheruvai, Kuppanatham, Lakkur, Mangalapuram, G Bazar, Kodanad, Ambur, Natrampalli, Tcs Mill Kethandapatti, Tirupathur PTO, Chengam, Rsl-3 Avalurpettai, Scs Mill Thiruvannainal and Scs Mill Arasoor; 6 - Chittoor, Kodur, Enamakkal, Vadakuthu, Virudachalam, Marandahalli, Glenmorgan, Attur, Gangavalli, Salem, Thammampatty, Vazhapadi and Veeraganoor; 5 - Veligandla, Kavali, Rapur, Kandukur, Pullampeta, Vellathooval AWS, Chalakudi, Athirappalli AWS, Annamalai Nagar, Collectorate, Lalpet, Kurinipadi, Srimushnam, Tozhudur, Virudachalam Kvk AWS, Rasipuram, Upper Gudalur, Arcot, Tirupattur, Kalasapakkam, Melalathur, Idamalaray Dam AWS and Chamarajanagar.
3 Dec	26 - Mulki; 20 - Hosdurg and Enamakkal; 19 - Mangaluru; 18 Vadakara and Mangalore/P.bur; 17 - Ponnani, Thennala AWS, Irinjalkuda and Irikkur; 16 - Kudulu, Kozhikode and Mangaluru AP; 15 - Chalakudi, Karkala and Angadipuram; 14 Udupi and Kunnamkulam; 13 - Quilandi, Perinthalamanna, Thogamalai, Kota, Vadakara AWS and Thrissur; 12 - Cheruvanchery AWS and Karipur Ap.; 11 - Peringome AWS and Kunnamangalam AWS; 10 - Haripad, Ams Kannur, Kannur, Krishnarayapuram, Sholingur, Yercaud and Kannur Airport AWS; 9 - Mavelikara, Thycauttussery AWS, Kannur Icar AWS, Chimoni ARG, Panchapatti, Viralimalai, Salem, Pulivalam, Sirugamani Kvk AWS, Bhagamandala, Bellur and Maddur; 8 - Palasamudram, Taliparamba, Alwaye PWD, Perumpavur, Anakayam ARG, Vadakkancherry, Mayanur, Taluk Office Pandalur, Worth Estate Cher, Musiri and Madikkai AWS; 7 - Seetharamapuram, Pakala, Aluva AWS, Muliya AWS, Munderi AWS, Mangalam Dam AWS, Pattembi, Thritla, Vytiri, Hosur, Devala, Panapakkam, R.k.pet, Ponnaniyar Dam, Vathalai Anaicut, Tellichery and Nilambur AWS; 6 - Nilambur, Palemad AWS, Chinnakalar, Panruti, Barwood, Upper Gudalur, Kaveripakkam, Anaimaduvu Dam, Attur, Manapparai, Sirukudi, Thuraiyur, Napoklu, Hunsur, Kayamkulam and Kayamkulam ARG; 5 - Konta, Udayagiri, Aralam AWS, Panathur AWS, Alathur, Athirappalli AWS, Dharmapuri PTO, Ulundurpet, Kulithalai, Denkanikottai, G Bazar, Omalur, Thammampatty, Pallipattu, Cheyyar, Marungapuri, Ammundi, Padia, Mani, Sulya, Puttur HMS, Sargur, Nooranad AWS, Vaikkam AWS, Dharmapuri and Mandya.
4 Dec	14 - Gorantla; 8 - Atmakur; 7 - Borigumma; 5 - Tokapal, Budalur and Thuvakudi Imti.
5 Dec	12 - Kalasapakkam; 6 - Cuddapah, Duvvur, Kamalapuram and Vaniyambadi; 5 - Atmakur, Seetharamapuram, Srialahasti, Thottambedu, Chapad, Vallur, R.S.Mangalam, Alangayam and Jamunamarathur.
6 Dec	6 - Chandurthi; 5 - Sanguem and Chincholi.
7 Dec	6 - Alladurg; 5 - Jainoor and Castle Rock.
8 Dec	8 - Ghatkesar AP; 6 - Bhuvanagiri and Yadagirigutta; 5 - Bachhanpet, Peddapalle and Yadagirigutta (ARG) .
9 Dec	6 - Hadagali.
10 Dec	Nil.
11 Dec	6 - Piravam.

12 Dec	18 - Kodiayakarai; 15 - Thalaigayyer; 13 - Velankanni; 12 - Maduranthagam; 11 - Ambathur; 10 - Mayiladuthurai, Thirukuvalai, Tirupoodi, Red Hills, Poonamalle ARG and Vedaranniyam; 9 - Ayanavaram Taluk Office, Cd Hospital Tondai, Parangipettai, Karaikal, Manalmedu, Nagapattinam, Poonamallee and Thiruthurai; 8 - Satyavedu, Perambur, Kurinjipadi, Srimushnam, Sembarkoil PWD, Adirampatnam, Chembarabakkam ARG, Puzhal ARG, Tiruvallur and Tindivanam; 7 - Tirupati AP, Kolapakkam ARG, Anna University, Anna Uty ARG, Chennai Collectorate Bu, Chennai (n), Chidambaram, Collectorate, Kuppam, Kothavacherry, Sethiathope, Vanamadevi, Virudachalam, Virdhachalam Kvk AWS, Sirkali, Tarangambadi, Avudayarkoil, Budalur, Lower Anaicut, Orthanad, Gummidipoondi, Mannargudi and Muthupet; 6 - Alandur, Chennai AP, Mgr Nagar, Cuddalore, Bhuvanagiri, K.m.koil, Lalpet, Uthiramerur, Pattukottai, Ennore AWS, Ponneri, Thamarapakkam, Tiruvallur, Nannilam, Pandavaiyar Head, Rsl-3 Valathy and Vilupuram; 5 - Srikalahasti, Tada, Thottambedu, Jayamkondam, Chengalpattu, Mahabalipuram, Dgp Office, Annamalai Nagar, Me Mathur, Src Kudithangi, Vadakuthu, Thirukoilur ARG, Kollidam, Pudukcherry, Tondi, Ayyampettai, Kumbakonam, Madukkur, Manjalaru, Thanjai Papanasam, Neivasal Thenpathi, Thiruvaidaimaruthur, Vettikadu, Cholavaram, Chembarabakkam, Koratur, Kodavasal, Needamangalam, Kallakudi, Gingee, Rsl Vallam, Mylam AWS, Rsl-2 Nemoor and Rsl-3 Anandhapuram.
13 Dec	54 - Oothu; 37 - Ambasamudram and Kovilpatti; 35 - Kakkachi and Kannadai Anicut; 32 - Manjolai; 31 - Lalpet, Ayikudi and Nalumukku; 30 - Manimutharu; 26 - Palayamkottai; 24 - K.m.koil, Srimushnam, Shencottah, Ramanadhi Dam and Servar Dam; 23 - Thenkasi and Cheranmahadevi; 22 - Kilacheruvai, Mayiladuthurai and Papanasam; 21 - Jayamkondam, Pelandurai, Sethiathope, Gundar Dam, Thiruvaidaimaruthur and Avadi; 20 - Sendurai, Karaikal, Aduthurai AWS and Manjalaru; 19 - Budalur, Kumbakonam and Vilathikulam; 18 - Ariyalur, Lakkur, Me Mathur, Sembarkoil PWD and Tirukattupalli; 17 - Bhuvanagiri, Kattumayilur, Tozhudur, Sriperumbudur, Manalmedu, Erayur, Kamudhi, Lower Anaicut, Ettayapuram, Kalugumalai, Vaippar and Kallakurichi; 16 - Suthamalli Dam, Vepur and Kadambur; 15 - Aryankavu, Sankarankoil, Ayyampettai, Thanjai Papanasam, Kalakadu, Srivaikuntam and Kovilpatti AWS; 14 - Sullurpet, Kuppam, Virudachalam, Kundrathur, Agaram Seegoor, Labbaikudikadu, Avudayarkoil, Arakonam, Panapakkam, Adavinainarkoil Dam, Karuppanadhi Dam, Sivagiri, Thirumoorthy Ib, Chembarabakkam, Koratur, Poonamallee and Vembakottai; 13 - Kodaikanal Boat Club, Odanchatram, Dsl Virugavoor, Tarangambadi, Veppanthattai, Manameli, Kaveripakkam, Tirunelveli, Thirumoorthy Dam, Thiruvallur, Surangudi and Sattur; 12 - Tada, Kovilkadavu AWS, Maduranthagam, Chidambaram, Virdhachalam Kvk AWS, Thaluthalai, Kamudhi ARG, Arcot, Nannilam, Kadalkudi, Sivakasi and Poonamalle ARG; 11 - Thottambedu, Thirumanur, Andimadam Taluk Office, Alandur, Chennai AP, Uthiramerur, Krishnapuram, Kadaladi, Paramakudi, Valinokam, Tirupuvanam, Thekkadi, Nanguneri, Amaravathy Dam, Chetpet, Kayathar and Kayalpattinam; 10 - Rapur, Satyavedu, Srikalahasti, Venkatagiri, Chengalpattu, Parangipettai, Kodaikanal, Dindigul, Palani, Dsl Erayur, Dsl Kalayanallur, Dsl Rishivandhiyam, Dsl Thiyaadurgam, Ulundurpet, Kancheepuram, Sirkali, Wallajah, Ranipet, Tirupathur, Grand Anaicut, Periyar, Ambathur, Tiruttani PTO, Vilupuram and Tiruthani; 9 - Kodur, Kolapakkam ARG, Anna University, Anna Uty ARG, Mgr Nagar, Aliyar, Panruti, Vadakuthu, Gomugi Dam PWD, Nagapattinam, Perambalur, V.kalathur, Mudukulathur, Palar Anicut, Thammampatty, Veeraganoor, Singampunari, Gadana Dam, Kurungulam, Tiruvaiyaru, Madathukulam, Chembarabakkam ARG, Pallipattu, Poondi, Uthukottai, Valangaiman, Ottapadiram, Nandhiyar Head, Pullambadi, Gingee, Rsl-3 Avalurpettai, Aruppukottai, Pilavakkal and Tanjavur; 8 - Tirupati AP, Satyabama Uty ARG, Ayanavaram Taluk Office, Sholingannallur, Chinnakal, Kamatchipuram, Vedsandur, Dsl Thirupalapandal, Manimutharu Dam PWD, Panchapatti, Kollidam, Kalavai PWD, Karaikudi, Thanjavur, Moolaikaripatti, Gummidipoondi, R.k.pet, Vandavasi, Tiruvallur, Maniyachi, Ponnaniyar Dam, Samayapuram, Trp AP, Aruppukottai Kvk AWS, Kovilankulam and Thiruchuzhi; 7 - Nagari, Palode AWS, Mahabalipuram, Thirukalukundram, Taramani ARG, Annamalai Nagar, Basl Manalurpet, Dsl Madampooni, Kallakurichi ARG, Aravakurichi, Thogamalai, Pambar Dam, Pulipatti, Chettikulam, Puthu Vettakudi, Nagudi, Mimisal, Ramanathapuram, Tiruvadanai, Ammoor (Walajah Railway, Attur, Gangavalli, Manamadurai, Pwd Travellers Bungalow, Echanviduthi, Kodumudiyaru Dam, Chengam, Kalasapakkam, Keelpennathur, Tiruvannamalai, Kodavasal, Needamangalam, Satankulam, Manapparai, Sirugamani Kvk AWS, Tiruchirappalli Junction, Ponnai Dam, Ammundi, Marakkanam, Rsl-3 Valathy, Tindivanam, Scs Mill Thiruvannainal, Scs Mill Arasoor, Rajapalayam, Srivilliputhur, Madurai AP and Thoothukudi Har; 6 - Chittoor, Palasamudram, Pakala, Vattavada AWS, Punalur, Thenmala ARG, Thattathumala AWS, Valparai Pap, Kothavacherry, Kurinjipadi, Vanamadevi, Ariyalur Camp Area, Sankarapuram, Anaippalayam, Madurai North, Tallakulam, Usilampatti, Mangalapuram, Arantangi, Ayinkudi, Kilanilai, Virallimalai, Theerthandathanam, Minnal, Anaimaduvu Dam, Vazhapadi, Tnau Cri Yethapur, Sivaganga, Pattukottai, Orthanad, Mulanur, Udumalpet, Thamarapakkam, Arani, Vembakkam, Pandavaiyar Head, Devimangalam, Kallakudi, Musiri, Sirukudi, Thuvakudi Imti, Trp Town, Vathalai Anaicut, Katpadi, Rsl-3 Semmedu, Watrap, Virudunagar AWS and Madurai/T.south; 5 - Myladumpara ARG, Pampadumpara AWS, Peermade To, Kurudamannil, Laha AWS, Venkurinji AWS, Cheyyur, Hindusthan University, Chennai (n), Perambur, Valparai Taluk Office, Collectorate, Cuddalore, Kcs Mill-1 Moongilthura, Walajabad, Pechiparai, K.paramathi, Uthangarai, Idayapatti, Kallandri, Melur, Peraiyur, Sholavandan, Sathiar, Thaniamangalam, Vadipatti, Pudukcherry, Adanakkotai, Gandarvakottai, Illuppur, Keeranur, Tirumayam, R.s.mangalam, Kariyakovil Dam, Devakottai, Adirampatnam, Peravurani, Neivasal Thenpathi, Vettikadu, Periyakulam, Shanmuganadhi, Nambiyar Dam, Dharapuram, Uppar Dam, Red Hills, Cheyyar, Mannargudi, Vedanatham, Lalgudi, Thuraiyur, Thenparanadu, Basl Mugaiyur, Rsl Vallam, Rsl-2 Koliyanur, Rsl-2 Valavanur, Rsl-2 Nemoor, Rsl-3 Anandhapuram, Kariyapatti, Virudhunagar, Vamban Kvk AWS, Konni and Tambaram Aerodrome.
14 Dec	26 - Gadana Dam; 23 - Oothu; 22 - Nalumukku; 19 - Kakkachi; 18 - Manjolai; 16 - Tuticorin; 15 - Kodiayakarai, Ramanadhi Dam and Papanasam; 14 - Gundar Dam, Shencottah, Servar Dam and Needamangalam; 13 - Kurungulam, Orthanad and Virudunagar AWS; 12 - Kayalpattinam; 11 - Satankulam, Pullambadi, Sattur and Sivakasi; 10 - Kallikudi, Thekkadi and Aruppukottai; 9 - Nagudi, Karuppanadhi Dam, Adirampatnam, Budalur, Tirukattupalli, Manimutharu, Pandavaiyar Head, Rajapalayam and Virudhunagar; 8 - Thirumanur, Kumbakonam, Madukkur, Peravurani, Thiruvaidaimaruthur, Shanmuganadhi, Kodavasal, Muthupet, Valangaiman, Kovilpatti and Ponnaniyar Dam; 7 - Idayapatti, Thirukuvalai, Ayinkudi, Pattukottai, Thanjavur, Tiruvaiyaru, Nannilam, Thiruthurai; 6 - Thuvakudi Imti, Kariyapatti and Vedaranniyam; 6 - Kodaikanal, Kodaikanal Boat Club, Tirumangalam, Thalaigayyer, Velankanni, Tirupoodi, Arantangi, Avudayarkoil, Thenkasi, Echanviduthi, Thanjai Papanasam, Neivasal Thenpathi, Vettikadu,

WEATHER IN INDIA

	Mannargudi, Tiruvarur, Nandhiyar Head, Tiruchirappalli Junction, Trp Town and Vembakottai; 5 - Pampadumpara AWS, Nagapattinam, Kilanilai, Manamalkudi, Kudimiyamalai, Karaikudi, Tirupuvanam, Ayikudi, Aduthurai AWS, Sivagiri, Lower Anaicut, Grand Anaicut, Manjalaru, Vallam, Periyar, Uttamapalayam, Kannadaiyan Anicut, Uppar Dam, Ottapadiram, Srivaikuntam, Lalgudi, Samayapuram, Pilavakkal and Kovilankulam.
15 Dec	13 - Papanasam; 10 - Manimutharu; 9 - Kodaikannal Boat Club; 8 - Oothu, Kayalpattinam and Long Island; 7 - Nalumukku, Servalar Dam, Tuticorin and Car Nicobar IAF; 5 - Mimisal, Ramanadhi Dam, Kakkachi and Car Nicobar.
16 Dec	12 - Port Blair; 6 - Long Island.
17 Dec	Nil.
18 Dec	10 - Car Nicobar IAF; 9 - Rajapalayam; 7 - Srivilliputhur; 5 - Watrap, Car Nicobar and Nancowry.
19 Dec	6 - Cd Hospital Tondaipeet, Perambur and Ennore AWS; 5 - Chennai Collectorate Bu and Chennai (n) .
20 Dec	7 - Needamangalam; 6 - Mentada; 5 - Bondapalle, Kallandri, Thirukuvalai and Ennore AWS.
21 Dec	30 - Nancowry; 11 - Ranpur; 9 - Bondapalle; 8 - Bheemuniapatnam, Bobbili, Merakamudidam, Mentada, Therlam, Sandhiyur Kvk AWS, Begunia and Berhampur; 7 - Cheepurupalle, Gajapathinagaram, Garividi, Nellimarla, Balamore, Kodumudiyaru Dam, Oothu, Nandhiyar Head, Belaguntha, Naugaon, Banpur, Jatni, Khordha PTO, Gop, Krishnaprasad, Pipili and Purushottampur; 6 - Garugubilli, Seethanagaram, Denkada, Gantyada, Srungavarapukota, Valangaiman, Sirugamani Kvk AWS, Vathalai Anaicut, Bhanjanagar, Chikiti, Dharakote, Gopalpur, Hinjili, Balikuda, Jagatsinghpur, Paradeep Cwr and Tangi; 5 - Balajipeta, Jiyyamma Valasa, Palakonda, Parvathipuram, Kurupam, Palakonda (ARG) , Mandasa, Ichchapuram, Pathapatnam, Ranastalam, Tekkali, Pusapatirega, Vizianagaram, Mayanur, Madurai Andipatti, Nalumukku, Tiruvarur, Pullambadi, Banki, Gosani, Paralakhemundi, Aska, Chhatrapur, Digapahandi, Ganjam, Kodala, Polsara, Tirtol, Bhubaneswar AP, Chilika, Bolagarh, Nayagarh, Nuagaon, Odagaon, Kolnara, R Guda, Mundali and Gunupur.
22 Dec	6 - Nedungal, Avudayarkoil and Virudhunagar; 5 - Kulithalai, Krp Dam, Paiyur AWS, Illuppur, Navalur Kottapattu, Sirugamani Kvk AWS and Kantapada.
23 Dec	6 - Car Nicobar and Car Nicobar IAF; 5 - Vembakottai.
24 Dec	8 - Car Nicobar; 6 - Car Nicobar IAF.
25 Dec	7 - Koksara and Tangi; 6 - Dabugan and Kosagumda; 5 - Bhawanipatna, Junagarh and Jhorigam.
26 Dec	8 - Narla; 7 - Bhawanipatna and Koksara; 6 - Banki, Belaguntha, Junagarh, Kalampur, Th Rampur, Chilika and Tangi; 5 - Deobhog, Chandahandi, Dabugan and Ranpur.
27 Dec	8 - Kavali; 7 - Nagari; 6 - Kodanad and Pallipattu; 5 - Kandukur, Tiruttani PTO and Tiruthani
28 Dec	9 - Pachpahar SR and Tirupuvanam; 8 - Sahlawas; 7 - Kosli, Bharwain and Banihal; 6 - Farukhnagar, Bahadurgarh, Dadri Toye Edu Fmo, Jhahhar, Narnaul REV, Palhawas REV, Phangota, Ranjit Sagar Dam Site, Shahpur Kandi, Jhalrapatan SR, Green Field Ps, Naina Davi, Mehre (barsar) , Guler, Manali, Qazi Gund, Rsl-3 Valathy, Khedda, Sikandra Rao, Satwas, Garoth and Batote; 5 - Jansui Had, Badli REV, Manethi REV, Rai REV, Jagdishpur Kvk AWS, Madhopur, Malikpur, Ballawal Saunkri, Neemkathana SR, Srimadhapur, Roshnabad, Lodi Road, Barthin, Ghamroor, Nagrota Surian, Chaupal, Jammu AWS, Govindpura AWS, Reasi ARG, Ammapettai, Arcot, Rsl-3 Avalurpettai, Loni, Budhana, Narmadapuram, Badi, Udaipura, Nasrullahganj, Badnagar, Shamshabad, Dalhousie, Dalhousi Alha AWS, Muzaffarnagar, Delhi University, Narnaul, Delhi Ridge and Katra.
29 Dec	7 - Majholi; 6 - Haripur, Badi, Panagar, Badwara, Pali and Umari-aws; 5 - Godadongri, Shahpura, Bargi, Sihora, Bilaspur, Manpur, Nowrozabad and Karkeli.
30 Dec	8 - Nagapattinam; 7 - Velankanni; 5 - Thirukalukundram.
31 Dec	14 - Oothu; 13 - Nalumukku; 12 - Kakkachi; 10 - Manjolai.

The Southwest Monsoon has withdrawn from the entire country on 15th Oct 2024. Simultaneously, the Northeast Monsoon rainfall activity commenced over the southeast peninsular India on 15th October.

A low pressure area formed over southeast Bay of Bengal on 14th October early morning. Moving west-northwestwards, it became well marked low pressure area over central Bay of Bengal and intensified into a **Depression** over southwest Bay of Bengal. It resulted extremely heavy rainfall at isolated places over north coastal Tamil Nadu and Rayalaseema and very heavy rainfall at isolated places over coastal Andhra Pradesh.

Another Low Pressure Area formed over eastcentral Bay of Bengal & adjoining north Andaman Sea on 21st

morning and concentrated into a Depression on 22nd morning over the same region. It moved west-northwestwards and intensified into a Cyclonic Storm "DANA" on 23rd morning over eastcentral Bay of Bengal. It further intensified into a Severe Cyclonic Storm "DANA" over central & adjoining northwest Bay of Bengal. Heavy to very heavy rainfall occurred along the track. This system caused widespread rainfall over North coastal Odisha with heavy to very heavy rainfall at a few places over Bhadrak, Kendrapara and Jagatsinghpur districts, heavy rainfall at isolated places over East & West Midnapur districts of West Bengal and Singhbhum district of Jharkhand on 24th October. It caused heavy to very heavy rainfall at a few places with isolated extremely heavy rainfall (≥ 21 cm) over North Odisha and Gangetic West Bengal on 25th October.

3.1.5. Temperature

The maximum temperature was above normal over most parts of the country, except some parts of east & northeast India, west-central India, south peninsular India and Lakshadweep. Maximum temperature anomaly was more than 2 °C over parts of Jammu, Kashmir & Ladakh, Himachal Pradesh, Uttarakhand, Punjab, West Rajasthan, Odisha and Chhattisgarh. Maximum temperature anomaly was less than -1 °C over parts of Gujarat region, northern Madhya Maharashtra, West Madhya Pradesh, East Uttar Pradesh, Nagaland, Manipur, Assam state & Arunachal Pradesh.

The minimum temperature was above normal over most parts of the country. The minimum temperature anomaly was more than 3°C over parts of Punjab, Rajasthan, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Saurashtra & Kutch, Gujarat region and East Madhya Pradesh.

The highest maximum temperature of 41.3 °C was recorded at Pokharan (West Rajasthan) over the plains of the country on 28th October. The lowest minimum temperature of 15.2 °C was recorded at Bhopal (West Madhya Pradesh), Hissar (Haryana) and Delhi Ridge (Delhi) over the plains of the country on 26th October.

3.1.6. Damages associated with disastrous weather events

In October 2024, a total 50 people reportedly died, more than 30 were injured and more than 60 livestock perished. The details of casualties based on real-time media reports are given below:

Lightning: A total of 24 persons reportedly died (7- Gujarat, 5-Telangana, 3-Chhattisgarh, 3-Odisha, 2- Andhra Pradesh, 2- Karnataka, 1- Maharashtra, 1-Tamil Nadu), 24 persons were injured and 39 livestock perished.

Heavy Rains, Floods, & Landslides: 22 persons reportedly died (12- Karnataka & 10- Meghalaya) and nine persons were injured.

Cyclonic Storm: A total of 4 persons reportedly died in west Bengal and 23 livestock perished due to Severe Cyclonic Storm DANA.

Fig. 3. shows significant weather events during October (based on real-time media reports).

3.2. November

3.2.1. Storms and depressions

(i) Cyclonic Storm “FENGAL” Southwest Bay of Bengal (23rd November–2nd December)

Under the influence of cyclonic circulation over east Equatorial Indian Ocean and adjoining south Andaman Sea & southeast Bay of Bengal, a **Low Pressure Area** formed over east Equatorial Indian Ocean and adjoining southeast Bay of Bengal at 0830 hrs. IST of 23rd and became **Well Marked Low Pressure Area** and lay centred at 0830 hrs. IST 24th over southeast Bay of Bengal and adjoining East Equatorial Indian Ocean. It intensified into a **Depression** and lay centred over central parts of south Bay of Bengal and adjoining east Equatorial Indian Ocean near Lat. 5.0° N/Long. 85.3° E about 600 km southeast of Trincomalee at 0830 hrs. IST of 25th and further intensified into a **Deep Depression** & lay over southwest Bay of Bengal centred near Lat. 6.3°N/ Long. 82.8° E about 310 km southeast of Trincomalee at 0830 hrs. IST of 26th. It moved north-northwestwards and intensified into a **Cyclonic Storm “FENGAL” (pronounced as FEINJAL)** over the southwest Bay of Bengal centered near Lat. 11.2° N/Long. 82.2° E at 1430 hrs. IST of 29th. It crossed north Tamil Nadu & Puducherry coasts as a **Cyclonic Storm** with a wind speed of 70-80 kmph gusting to 90 kmph near Lat. 12.1° N/ Long. 79.9° E close to Puducherry between 2230 - 2330 hrs. IST of 30th. It remained practically stationary for 12 hours and weakened into a **deep depression** and lay centered over the same region near Lat. 12.0° N/Long. 79.8° E close to Puducherry about 30 km north of Cuddalore at 1130 hrs. IST of 1st Dec. It moved slowly west-northwestwards and weakened into a **depression** and lay centered over the same region near Lat. 12.1° N/Long. 79.6° E about 20 km northeast of Villupuram at 1730 hrs IST of 1st Dec. further weakened into a **Well Marked Low Pressure Area** over north interior Tamil Nadu at 0530 hrs. IST of 2nd. It lay as a **Low Pressure Area** over north interior Tamil Nadu and adjoining south interior. Karnataka at 1730 hrs. IST of 2nd. It moved west-northwestwards and become **Well Marked Low Pressure Area** over coastal Karnataka and adjoining east central Arabian sea at 0000 hrs. IST of 3rd and weakened into a **Low Pressure Area** over eastcentral & adjoining southeast Arabian sea at 0830 hrs. IST of 4th and became less marked at 0530 hrs. IST of 5th December.

This system caused heavy to extremely heavy rainfall activity over Tamil Nadu, Puducherry & Karaikal and southern states of India including Kerala.

3.2.2. Weather and associated synoptic features

A summary of the synoptic systems for the month of November 2024 are given in Table 3. The sub-divisionwise percentage departure of rainfall from normal

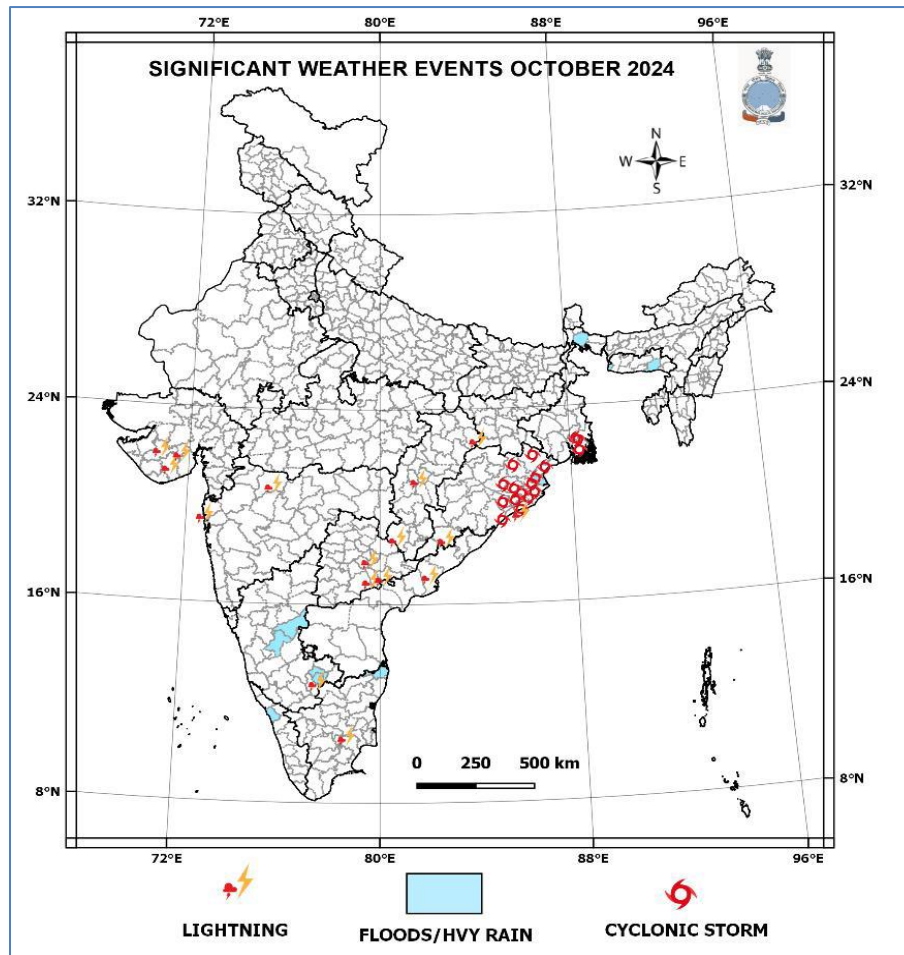


Fig. 3. Shows significant weather events during October (based on real-time media reports)

Source: IMD, Climate Summary for the month of October 2024

and the significant amount of rainfall during the month are given in Tables 1 and 5 respectively.

The monthly rainfall over the homogenous region of Northwest India (20% of L.P.A.), central India (13% of L.P.A.), East & Northeast India (32% of L.P.A.) was large deficient while the precipitation over the homogenous region of South Peninsula (62% of L.P.A.) was *deficient*. The country as a whole (45% of L.P.A.), it was *deficient*. During the month, northeast monsoon rainfall activity over the core region of the south peninsula (comprising of 5 sub-divisions viz. Coastal Andhra Pradesh and Yenam, Rayalaseema, Tamil Nadu & Puducherry and Karaikal, South Interior Karnataka and Kerala & Mahe) as a whole was below normal and received deficient/ large deficient rainfall. For November 2024, rainfall over the south peninsula (northeast monsoon region) was 64% of its Long Period Average (LPA). In November, Out of 36 meteorological sub-divisions, 4 received normal, 6

received deficient, 17 received largely deficient and 9 sub-divisions did not receive any rainfall.

During the 1st week of the month, under the influence cyclonic circulations which formed over Gulf of Mannar & neighbourhood and its nearly westward movement towards central parts of south Arabian Sea, heavy rain at a few places with very heavy rain at isolated places was observed over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal towards the mid of week, along with heavy rain at isolated over Maharashtra & Karnataka coasts and south peninsular India on most of the days during the week. Heavy rain at isolated places was also observed over Sub-Himalayan West Bengal & Sikkim at the beginning of the week, mainly due to an upper air cyclonic circulation over that region.

Mainly dry weather prevailed over most parts of the country except parts of East and Northeast India, southern

Maharashtra and south peninsular India where light to moderate rainfall and thunderstorms were observed.

During the 2nd week of the month, heavy rain at isolated were observed over south peninsular India, mainly due to the presence of a trough which ran from the cyclonic circulation associated with low pressure area over southwest Bay of Bengal to the cyclonic circulation over southeast Arabian Sea & adjoining Lakshadweep area. Also, during this week, a Low Pressure Area formed over southwest Bay of Bengal on 11th November and it moved nearly westwards and lay over southwest Bay of Bengal off north Tamil Nadu & adjoining south Andhra Pradesh coasts, till it's weakening on 13th November. Thus, in association with this low pressure area, heavy rain at a few places with very heavy rain at isolated places was observed over southeast peninsular India towards the end of week and continued further.

During the 4th week, Cyclonic circulation over Comorin area & neighbourhood in the lower level at the beginning of week, resulted in extremely heavy rainfall at isolated places over Tamil Nadu, Puducherry & Karaikal on 21st November. Also, cyclonic storm 'FENGAL' & subsequent strengthening of northeasterly winds along and off Tamil Nadu coast caused heavy to very heavy rainfall was observed at isolated places over Tamil Nadu, Puducherry & Karaikal on 27th November and heavy rainfall was observed over Andaman & Nicobar Islands on 26th November.

Dense to very Dense Fog was observed in isolated pockets over northern parts of India during second fortnight of the month.

Neutral El Niño-Southern Oscillation (ENSO) conditions were prevailing over the Equatorial Pacific Ocean, neutral Indian Ocean Dipole (IOD) conditions were prevailing over the Indian Ocean. Above-average sea surface temperatures (SSTs) were seen across most parts of the Indian Ocean.

During first week of the month, Madden Julian Oscillation (MJO) index was in phase 8 with amplitude close to 1. It propagated to Phase 2 with an amplitude < 1 during 2nd week; remained in Phase 2 with amplitude >1 during 3rd week and. Propagated to Phase 4 with amplitude >1 and is propagated to Phase 5 during 4th week

3.2.3. Temperature

Maximum temperature was above normal over most parts of the country except some parts of east India, central India, northwest India and south peninsular India. Maximum temperature anomaly was more than 2 °C over parts of West Rajasthan and Meghalaya state. Maximum

temperature anomaly was less than -1 °C over parts of southern Madhya Maharashtra, Marathwada, West Madhya Pradesh, and Gangatic West Bengal.

The minimum temperature was above normal over most parts of the country except for some parts of central India, northwest India, south peninsular India and Lakshadweep. The minimum temperature anomaly was more than 3°C over parts of Punjab, West Rajasthan, Bihar, Jharkhand and Gangetic West Bengal and it was less than -1°C over parts of Madhya Pradesh state, East Rajasthan, Vidarbha, and Chhattisgarh. The lowest minimum temperature of 6.0°C was recorded at Adampur IAF (Punjab) over the plains of the country on 29th November.

3.2.4. Damages associated with disastrous weather events

During November, a total of 24 persons were reportedly claimed dead and six persons were injured. The details of causalities based on real-time media reports and other state government agencies are given below:

Cyclonic Storm: A total of 15 persons died because of Cyclonic Storm FENGAL. (11 at Tamil Nadu and 4 at Puducherry).

Lightning: 9 persons reportedly died and 6 persons were injured during November because of Lightning. (6 at Tamil Nadu, 1 at Kerala, 1 at Karnataka and 1 at Uttar Pradesh).

Floods, Heavy Rains & Landslide: Ramanathapuram district of Tamil Nadu was affected by Extremely Heavy Rains.

Fig. 4 shows significant weather events during the month of Nov (based on real time media reports).

3.3. December

3.3.1. Storms and Depressions

(i) *Depression over westcentral Bay of Bengal off north Andhra Pradesh coast (20th–21st Dec 2024)*

Under the influence of an upper air cyclonic circulation over southeast Bay of Bengal, a **Low Pressure Area** formed over central parts of south Bay of Bengal at 0830 hrs. IST of 16th and it lay as a **Well Marked Low Pressure Area** over the same region on 18th. It moved northwards and concentrated into a **Depression** and lay over westcentral Bay of Bengal off Andhra Pradesh coast centered near Lat. 13.7° N/Long. 83.5° E at 1730 hrs. IST of 20th. It weakened into a Well Marked Low Pressure

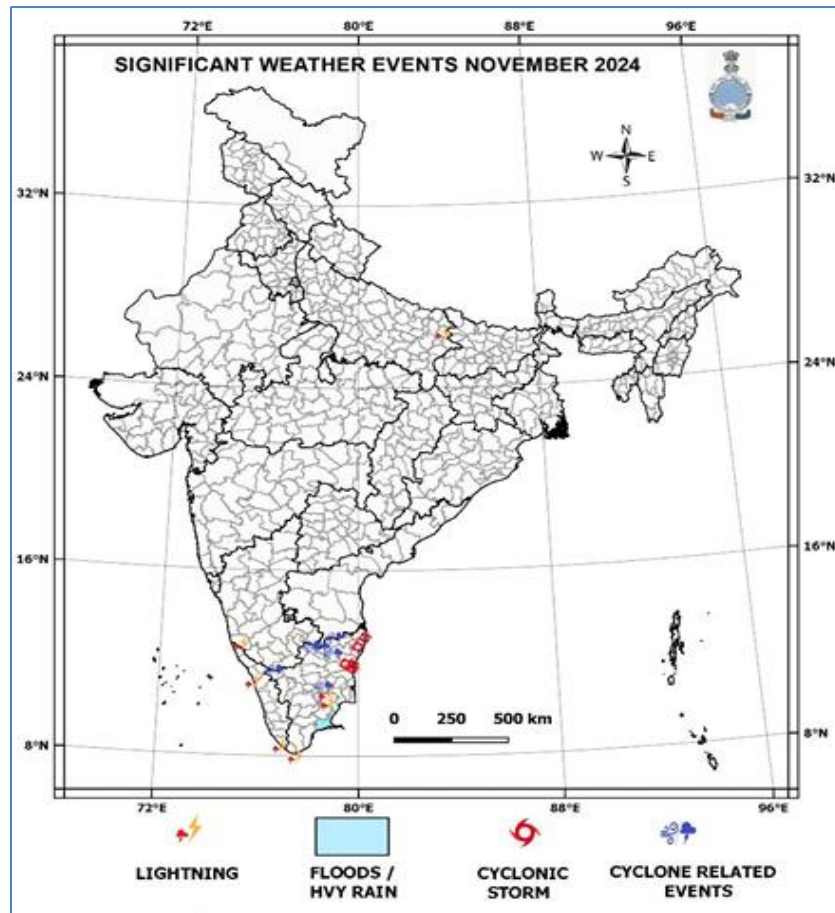


Fig. 4. Shows significant weather events during the month of Nov (based on real time media reports)
Source: IMD, Climate Summary for the month of November 2024

Area over the westcentral Bay of Bengal at 1730 hrs. IST of 21st. It persisted over the same region at 0830 hrs. IST of 22nd. It moved west-southwestwards and lay over west-central and adjoining southwest Bay of Bengal off south Andhra Pradesh- north Tamil Nadu coasts at 0530 hrs. IST of 23rd & over southwest and adjoining west-central Bay of Bengal off south Andhra Pradesh- north Tamil Nadu coasts at 0830 hrs. IST of 23rd & 24th. It moved westwards and weakened into a Low Pressure Area over the same region at 0530 hrs. IST of 25/12/ 2024.

This system caused heavy to very heavy rainfall at isolated places over coastal areas of Tamil Nadu, Puducherry & Karaikal, south Odisha & Andhra Pradesh & Yanam on 19th Dec. Further, light to moderate rainfall with heavy rainfall at isolated places over coastal areas of Odisha and Gangetic West Bengal on 20th December.

3.3.2. Weather and associated synoptic features

Table 4 gives a summary of the synoptic systems during the month of December 2024. The sub-division

wise percentage departure of rainfall from normal and the significant amounts of rainfall during the month are given in Tables 1 and 5 respectively.

The monthly rainfall of December 2024 was 174% of its LPA for the country as a whole, 83% of its LPA over northwest India, 251% of its LPA over central India, 24% of its LPA over east & northeast India and 286% of its LPA over south peninsula. Rainfall over south peninsular India (91.5mm) was 3rd highest since 1901 and the highest since 2001. Out of 36 meteorological sub-divisions, 18 received large excess, 2 received excess, 1 received normal, 5 received deficient, 9 received large deficient and 1 sub-division did not received any rainfall during the month.

In December 2024, sea surface temperatures (SSTs) were below average in mostparts of central and east-central Pacific Oceans. Equatorial SSTs were near to above average across the western Pacific Ocean and equatorial SSTs were above average across most northern and eastern Indian Ocean, including the north Arabian Sea

and the Bay of Bengal. Sea surface temperature anomalies were negative and within normal range over all the NINO regions and weak La Niña conditions are present over the equatorial Pacific Ocean.

In the beginning of the month, weakening of Cyclonic Storm “FENGAL” [pronounced as FEINJAL] into a Deep Depression and into a Depression over the north coastal Tamil Nadu on 1st December night and It further weakening into a low pressure area over north interior Tamil Nadu and adjoining south interior Karnataka caused extremely/ exceptionally heavy rainfall at isolated places over north Tamil Nadu and Puducherry on 1st and 2nd December. As the remnant of Cyclonic Storm moved across coastal Karnataka as a well marked low pressure area, it caused extremely heavy rainfall on 3rd December over coastal Karnataka. Heavy to very heavy rainfall was observed at isolated places over Tamil Nadu, Puducherry & Karaikal in the beginning of week and over Telangana in the mid of the week.

During the 2nd week, Subdued rainfall activity was observed over most parts of the country except parts of peninsular India and eastern India. A well marked low pressure area over the southwest and adjoining southeast Bay of Bengal and its movement towards Lakshadweep & adjoining Maldives area caused heavy to very heavy rainfall with exceptionally heavy rainfalls at isolated places over southern peninsula.

Around 3rd week of the month, a well marked low pressure area over central parts of south Bay of Bengal caused heavy to very heavy rainfall at isolated places were observed over Andaman & Nicobar Islands & Tamil Nadu.

During fourth week of the month, wet spell over Odisha, Andhra Pradesh and Tamil Nadu continued during most days of the week due to the presence of a Well-Marked Low Pressure Area and its concentration into a Depression over west central Bay of Bengal off Andhra Pradesh coast. This system also caused isolated heavy rainfall over east coast & Andaman & Nicobar Islands.

Under the influence of two active Western Disturbances in succession, fairly widespread to widespread rainfall/snowfall activity were observed over the western Himalayan region & adjoining plains of Northwest and Central India with isolated thunderstorm and hailstorm on 28th & 29th December. Heavy rainfall/snowfall was observed at isolated places over Jammu Kashmir on 28th December and in Uttarakhand on 29th December. Heavy rainfall was also observed at isolated places of Haryana on 28th December. Heavy to

very heavy rainfall was recorded at isolated places over south Tamil Nadu, Rayalaseema and coastal Andhra Pradesh towards the end of the month.

During the month, Dense to very Dense Fog was observed in isolated pockets northwest, north & adjoining east and northeast India.

During December 2024, subdued cold waves/dense fog were observed across northwest and central India. However, cold waves were mainly observed over Punjab during 13-18 December and Himachal Pradesh during 19-27 December.

3.3.3. Temperature

In December 2024, the maximum temperature over the country as a whole was 25.7 °C with an anomaly of -0.1 °C and the minimum temperature was the 5th highest (13.2 °C with an anomaly of 0.9 °C) since 1901. The mean temperature for December 2024 was 19.5 °C with an anomaly of 0.4 °C, the 6th highest since 1901. Among the four homogeneous regions, over South Peninsular India, minimum temperature was the highest (20.9 °C with an anomaly of 2.1 °C) and over Central India, it was the 5th highest (14.5 °C with an anomaly of 1.5 °C) since 1901. Over East & Northeast India, the maximum temperature was the 5th highest (25.0 °C with an anomaly of 1.0 °C) since 1901.

Maximum temperature was below normal over most parts of the country except some parts of east & northeast India, central India and south Peninsular India. Maximum temperature anomaly was more than 2 °C over parts of east Uttar Pradesh, Gangatic West Bengal, and Chhattisgarh. Maximum temperature anomaly was less than -2 °C over parts of Rajasthan, north Madhya Maharashtra and southern parts of Odisha.

The minimum temperature was above normal over most parts of the country except some parts of northwest India and central India. The minimum temperature anomaly was more than 4 °C over parts of Chhattisgarh, Vidarbha, Telangana and Odisha, and it was more than 3 °C over parts of Madhya Maharashtra, Marathwada, Vidarbha, south interior Karnataka, Rayalaseema, Chhattisgarh, coastal Andhra Pradesh & Yanam, Telangana and Odisha. The minimum temperature anomaly was less than -1 °C over parts of Jammu, Kashmir & Ladakh, Saurashtra & Kutch, Rajasthan, Haryana, Chandigarh, Delhi and Bihar.

The lowest minimum temperature of -0.4 °C was recorded at Adampur IAF (Punjab) over the plains of the country on 13th December.

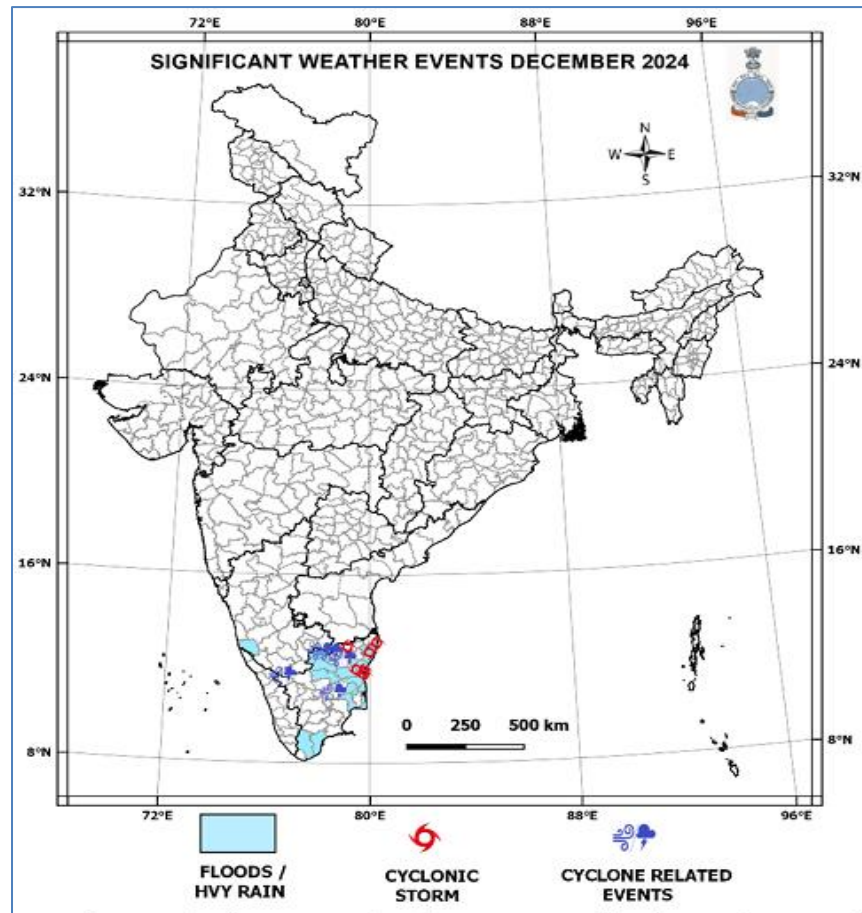


Fig. 5. Shows significant weather events during the month of December (based on real time media reports)
Source: IMD, Climate Summary for the month of December 2024

3.3.4. Damages associated with the Disastrous weather events:

Fig. 5 shows significant weather events during the month of December (based on real time media reports).

During December 2024, a total of about 15 people reportedly died and damage was reported because of Cyclonic Storm FENGAL mainly in Puducherry (Tamil Nadu) Further, Dakshina Kannada (Karnataka); Ariyalur, Cuddalore, Dharmapuri, Kallakurichi, Kanchipuram, Krishnagiri, Mayiladthurai, Salem, Thanjavur, Thoothukudi/Tuticorin, Tirunelveli, Viluppuram, Tenkasi (Tamil Nadu); Puducherry (Puducherry) districts affected due to Extremely Heavy Rains.

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due to Shri Abhinav Arora S.A. for his assistance in preparation of map.

Appendix

Definitions of the terms given in 'Italics'

Rainfall	
<i>Excess</i>	percentage departure from normal is + 20% or more.
<i>Normal</i>	percentage departure from normal is – 19 % to + 19 %
<i>Deficient</i>	percentage departure from normal is – 20 % to – 59 %.
<i>Scanty</i>	percentage departure from normal is – 60 % to – 99 %.
<i>Extremely heavy rain</i>	rainfall during the 24 hours period, ending at 0300 UTC 20.5 cm and above.
<i>Very heavy rain</i>	rainfall during the 24 hours period, ending at 0300 UTC, from 11.6 cm to 20.4 cm.
<i>Heavy rain</i>	rainfall during the 24 hours period, ending at 0300 UTC, from 6.5 cm to 11.5 cm.

Heavy snowfall	Snowfall during the 24 hours period, ending at t 0300 UTC, 64.5 cm to 115.5 cm
At most places (widespread):	76 % or more stations of a meteorological sub-division reporting at least 0.1 mm rainfall.
At many places (Fairly widespread):	51% to 75 % stations of a meteorological sub-division reporting at least 0.1 mm rainfall.
At a few places (Scattered):	26 % to 50 % stations of a meteorological sub-division reporting at least 0.1 mm rainfall.
At isolated places (Isolated):	25% or less stations of a meteorological sub-division reporting at least 0.1 mm rainfall.

Monsoon Activity

(a) Southwest monsoon

Vigorous	rainfall exceeding 4 times the normal with, at least two stations reporting rainfall more than or equal to 8 cm along the west coast and 5 cm elsewhere. Rainfall in that sub-division should be fairly widespread or widespread.
Active	rainfall more than 1½ to 4 times the normal, with at least two stations reporting rainfall more than or equal to 5 cm along the west coast and 3 cm elsewhere. Rainfall in that sub-division should be fairly widespread or widespread.

(b) Northeast monsoon

Vigorous	rainfall exceeding 4 times the normal with at least two stations reporting rainfall more than or equal to 5 cm in coastal Tamil Nadu and south coastal Andhra Pradesh and 3 cm elsewhere in the northeast monsoon region. Rainfall in that sub-division should be fairly widespread or widespread.
Active	rainfall more than 1½ to 4 times the normal, with at least two stations reporting rainfall more than or equal to 3 cm in coastal Tamil Nadu and south coastal Andhra Pradesh and 2 cm elsewhere in the northeast monsoon region. Rainfall in that subdivision should

be fairly widespread or widespread.

Temperature

(a) Maximum/day temperatures:

Markedly above normal	when the departure from normal is +5 °C or more
Appreciably above normal	when the departure from normal is +3.1 °C to +5.0 °C
Above normal	when the departure from normal is +1.6° C to 3.0 °C
Normal	when the departure from normal is +1.5 °C to -1.5 °C.

(b) Minimum / Night temperature

Based on the revised criteria which came into practice with effect from 2016, cold waves are declared based on the actual minimum temperatures. Cold wave is considered when the minimum temperature of a station is 10 °C or less for plains and 0 °C or less for hilly regions. Also, to declare cold wave, the criteria should be met at least in 2 stations in a met subdivision for at least 2 consecutive days.

Severe cold wave conditions	When the negative departure of minimum temperature from normal is less than 6.4 °C or when the actual minimum temperature is ≤ 2 °C over the plains.
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Cold wave conditions	When the negative departure of minimum temperature from normal is 4.5 °C to 6.4 °C or when the actual minimum temperature is ≤ 4 °C over the plains. For stations located over the coastal areas, when the minimum temperature departure is -4.5 °C or less, 'Cold Wave' may be described if the actual minimum temperature is 15 °C or less.
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Cold day to severe cold day conditions	When the minimum temperature is 10 °C or less for plains and 0°C or less for hilly regions. Cold day may be described if the departure of maximum temperature is -4.5 °C to -6.4 °C and severe cold day when it is less than 6.4 °C.
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Markedly below normal	when the departure from normal is -5 °C or less
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Appreciably below normal	when the departure from normal is between -3.1 °C to -5.0 °C
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Below normal	when the departure from normal is - 1.6 °C to -3.0 °C.
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Normal	departure from normal is -1.5 °C to +1.5 °C.
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