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Weather in India

MONSOON SEASON (June to September 2025)†

1. Introduction

The rainfall over the country as a whole during the monsoon season (June–September) 2025 was 108% of its long period average (LPA), thus categorized as normal monsoon. The realized rainfall for the monsoon season for year 2025 was 127% of its LPA over northwest India, 115% of its LPA over central India, 80% of its LPA over east & northeast India and 110% of its LPA over south peninsula. Rainfall over All India (936.8 mm) was 5th highest since 2001 and 38th highest since 1901. Rainfall over homogeneous region of northwest India (748.0 mm) was highest since 2001 and 6th highest since 1901. Rainfall over homogeneous region of east & northeast India (1088.1 mm) was 2nd lowest since 1901. Out of the total 36 meteorological sub-divisions, 2 sub-divisions received large *excess* rainfall (10% area of the country), 12 *excess* rainfall (35% area of the country), 19 *normal* (46% area of the country) and 3 sub-divisions (9% area of the country) *deficient* precipitation. No sub-divisions have *large deficient* or no rainfall in this season. Rainfall over East Rajasthan (1009.6 mm) was second highest since 1901. Rainfall over West Rajasthan and North Interior Karnataka (478.4 mm, 721.2 mm respectively) was 6th highest since 1901. Rainfall over Assam & Meghalaya (1128.1 mm) was lowest since 1901. Rainfall over Arunachal Pradesh (963.9 mm) was 3rd lowest since 1901.

Total nineteen low-pressure systems formed during monsoon season of 2025, out of which five intensified into Depression and one intensified into Deep Depression each against the normal frequency of 4-6 Depressions. Fig 8 shows Cyclones and depressions during monsoon 2025. Monsoon onset over Kerala was on 24th May (8 days before against the normal onset date 1st June). Over Mumbai, it advanced on 26th May against the normal date of advancement (11th June) with a record of 16 days earlier than usual. It further advance was also earlier than normal over most parts of the country and covering the entire country on 27th June which was 11 days ahead of its normal date 08th July. The withdrawal of southwest monsoon began on 14th September (normal date 17th September) and the monsoon withdrew from the entire country on 16th October (normal date of 15th October).

**Definitions of terms in italics other than sub-titles are given in Appendix*

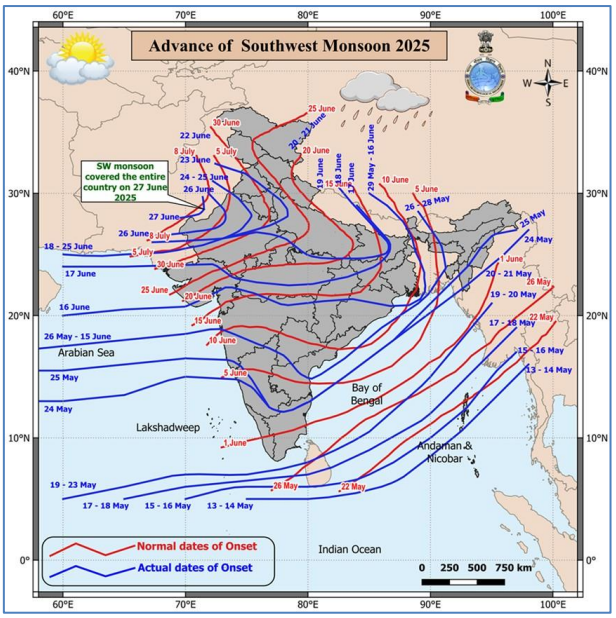

Fig. 1. Advance of Southwest Monsoon 2025

2. *Various aspects of southwest Monsoon – 2025*

2.1. *Onset and advance*

Fig.1 shows the isochrones and Table 1 shows the details of advance of monsoon over the country. In view of strengthening of south westerlies in the lower tropospheric levels, fairly widespread to widespread rainfall activity and persistent cloudiness over the area, Southwest monsoon advanced over the parts of Andaman Sea on 13 May (normal date 22 May), it set over Kerala on 24 May (8 days before against the normal onset 1st June date). Following its establishment over Kerala, the monsoon advanced rapidly across South India and the Northeastern region by 29th May. After this accelerated phase, the monsoon experienced a hiatus of approximately 17 days, with its further northward progress resuming on 16th June. By 25th June, most regions of the country were under monsoon influence, except for isolated pockets across Northwest Rajasthan. The southwest monsoon ultimately covered the entire country by 27th June 2025, achieving full coverage 11 days ahead of the climatological date of 8th July.

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TABLE 1

Advance of southwest Monsoon 2025

S.No	Date	Southwest monsoon advanced over	Northern Limit of Monsoon Passed through
1.	13 May	some parts of south Bay of Bengal, south Andaman Sea, Nicobar Islands and some parts of north Andaman Sea	Lat. 5°N/75°E, 5°N/80°E, 6°N/86°E, 8.5°N/90°E, Hut Bay, 13°N/95°E. and 16°N/98°E.
2.	15 May	some parts of southeast Arabian Sea, Maldives & Comorin area and some more parts of south Bay of Bengal, Andaman Islands and Andaman Sea	5°N/70°E, 6°N/75°E, 6°N/80°E, 7°N/85°E, 8°N/87°E, 10°N/90°E, Long Island, 15°N/95°E and 17°N/97°E.
3.	17 May	some more parts of south Arabian Sea, Maldives & Comorin area; South Bay of Bengal, remaining parts of Andaman Islands and Andaman Sea; and some parts of eastcentral Bay of Bengal	5°N/65°E, 6°N/70°E, 6.5°N/75°E, 7°N/80°E, 9°N/85°E, 12°N/90°E, 15°N/93°E and 19°N/97°E.
4.	19 May	some more parts of south Arabian sea, Maldives & Comorin area; south Bay of Bengal; some more parts of central Bay of Bengal and some parts of northeast Bay of Bengal	5°N/60°E, 6°N/65°E, 7°N/70°E, 7°N/75°E, 8°N/80°E, 10.5°N/85°E, 15°N/90°E and 21°N/95°E
5.	21 May	some more parts of south Arabian sea, Maldives & Comorin area; south Bay of Bengal; some more parts of central Bay of Bengal and some parts of northeast Bay of Bengal	5°N/60°E, 6°N/65°E, 7°N/70°E, 7°N/75°E, 10°N/81°E, 13°N/84.5°E, 16°N/88°E, 19.5°N/91°E and 23°N/95°E
6.	24 May	remaining parts of south Arabian Sea, some parts of westcentral & eastcentral Arabian Sea, entire Lakshadweep area, Kerala, Mahe, some parts of Karnataka, remaining parts of Maldives and Comorin area; many parts of Tamil Nadu, remaining parts of southwest and eastcentral Bay of Bengal, some parts of westcentral and north Bay of Bengal, and some parts of Mizoram	13°N/55°E, 13°N/60°E, 13.5°N/65°E, 15°N/70°E, Karwar, Shimoga, Dharmapuri, Chennai, 15°N/83°E, 18°N/87°E, Saiha, 25°N/96°E, 27°N/98°E.
7.	25 May	some more parts of westcentral & eastcentral Arabian Sea, some more parts of Karnataka, entire Goa, some parts of Maharashtra, some more parts of westcentral and north Bay of Bengal, and some more parts of Mizoram, some parts of Manipur and Nagaland	15.5°N/55°E, 15.5°N/60°E, 16°N/65°E, 16.5°N/70°E, Devgad, Belagavi, Haveri, Mandya, Dharmapuri, Chennai, 15°N/83°E, 18°N/87°E, 20°N/89°E, Aizawl, Kohima, 26.5°N/95°E, 27°N/97°E
8.	26 May	some more parts of central Arabian Sea, some more parts of Maharashtra including Mumbai, Karnataka including Bengaluru, remaining parts of Tamil Nadu, some parts of Telangana and Andhra Pradesh, some more parts of westcentral & North Bay of Bengal, Remaining parts of Mizoram, entire Tripura, Manipur, Nagaland, Arunachal Pradesh, some parts of Assam and Meghalaya	17.0°N/55°E, 17.5°N/60°E, 18°N/65°E, 18.5°N/70°E, Mumbai, Pune, Sholapur, Kalaburagi, Mahbubnagar, Kavali, 16.5°N/83°E, 19°N/86°E, 21°N/89°E, Agartala, Golpara and 28.5°N/89°E.
9.	28 May	some more parts of Maharashtra, remaining parts of Karnataka, most parts of Telangana, remaining parts of Andhra Pradesh, some parts of Chhattisgarh & Odisha, remaining parts of westcentral Bay of Bengal	17.0°N/55°E, 17.5°N/60°E, 18°N/65°E, 18.5°N/70°E, Mumbai, Ahilyanagar, Adilabad, Dantewada, Rayagada, 19°N/86°E, 21°N/89°E, Agartala, Goalpara and 28.5°N/89°E
10.	29 May	some more parts of Chhattisgarh & Odisha, some more parts of north Bay of Bengal, remaining parts of northeastern states and some parts of Sub-Himalayan West Bengal and entire Sikkim	17.0°N/55°E, 17.5°N/60°E, 18°N/65°E, 18.5°N/70°E, Mumbai, Ahilyanagar, Adilabad, Bhawanipatna, Puri, Sanhid Island, 22°N/89°E, Balurghat, 30°N/85°E.
11.	17 June	some more parts of North Arabian Sea and Gujarat and remaining parts of Vidarbha, more parts of Madhya Pradesh; most parts of Chhattisgarh; remaining parts of Odisha; some parts of Jharkhand; entire Gangetic West Bengal and remaining parts of Sub-Himalayan West Bengal and some parts of Bihar.	24.0°N/60°E, 24.0°N/65°E, Deesa, Indore, Panchmarhi, Mandla, Ambikapur, Hazaribagh, Supaul and 29.0°N/84.0°E.
12.	18 June	some more parts of North Arabian Sea, remaining parts of Gujarat, some parts of Rajasthan, some more parts of Madhya Pradesh, some parts of East Uttar Pradesh, remaining parts of Chhattisgarh and Jharkhand, and some more parts of Bihar.	25.0°N/60°E, 25.0°N/65°E, 25.5°N/70°E, Barmer, Jodhpur, Jaipur, Gwalior, Khajuraho, Sonbhadra, Gaya, and 30.5°N/82.5°E.
13.	19 June	most parts of Bihar and some more parts of east Uttar Pradesh today, on 19th June 2025.	25.0°N/60.0°E, 25.0°N/65.0°E, 25.5°N/70.0°E, Barmer, Jodhpur, Jaipur, Gwalior, Khajuraho, Sonbhadra, Ballia, 28.0°N/83.5°E and 30.5°N/81.5°E.
14.	20 Jun	remaining parts of Bihar & East Uttar Pradesh and Madhya Pradesh, some parts of West Uttar Pradesh, most parts of Uttarakhand, many parts of & Himachal Pradesh and some parts of Ladakh.	25.0°N/60.0°E, 25.0°N/65.0°E, 25.5°N/70.0°E, Jaipur, Agra, Rampur, Dehradun, Shimla, Manali and 33.5°N/79.0°E.
15.	22 June	most parts of Himachal Pradesh, entire Ladakh, most parts of Jammu & Kashmir and some parts of Punjab.	25.0°N/60.0°E, 25.0°N/65.0°E, 25.5°N/70.0°E, Jaipur, Agra, Rampur, Dehradun, Shimla, Pathankot, Jammu, and 33.5°N/73.0°E and 34.0°N/71.0°E

		Table 1 continued	
16.	25 June	remaining parts of north Arabian Sea; some more parts of Rajasthan, west Uttar Pradesh, Haryana and Punjab.	26.0°N/60.0°E, 26.0°N/65.0°E, 26.5°N/70.0°E, Nagaur, Sikar, Bharatpur, Rampur, Sonipat, Bhatinda and 31.0°N/70.0°E.
17.	26 June	some more parts of Rajasthan, Haryana and Punjab.	27.0°N/68.5°E, 27.0°N/70.0°E, Jaisalmer, Bikaner, Jhunjhunu, Bharatpur, Rampur, Sonipat, Anup Nagar and 29.0°N/70.0°E.
18.	29 June	remaining parts of Rajasthan, West Uttar Pradesh and Haryana and entire Delhi and covered the entire country (9 days before the normal date 08th July of covering the entire India).	

TABLE 2

Withdrawal of Southwest Monsoon 2025

S.No	Date	Southwest monsoon withdrew from:	Withdrawal line passed through
1.	14 September	some parts of west Rajasthan	30.5°N /73.5°E, Sri Ganganagar, Nagaur, Jodhpur, Barmer 25.5°N /70°E.
2.	16 September	some more parts of Rajasthan; some parts of Gujarat, Punjab and Haryana	31°N/74°E, Bhatinda, Fatehabad, Pilani, Ajmer, Deesa, Bhuj and 23°N/68°E.
3.	22 September	some more parts of Gujarat, Rajasthan, Haryana and Punjab	32° N, 74° E, Tarn Taran, Sangrur, Jind, Rewari, Tonk, Mahesana, Porbandar, 21° N, 68 °E.
4.	24 September	from remaining parts of Punjab, Haryana, Chandigarh & Delhi; some more parts of Gujarat & Rajasthan; and some parts of Madhya Pradesh, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir	37.5°N/ 73°E, Rampur Bushahr, Haridwar, Muradabad, Etawah, Banswara, Valabh, Vidyanagar, Veraval, 20.5°N/69°E.
5.	26 September	some more parts of Gujarat, entire Rajasthan, some more parts of Madhya Pradesh & Uttar Pradesh and entire Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand)	20°N/ 69°E, Veraval, Bharuch, Ujjain, Jhansi, Shahjahanpur and 30°N/81°E.
6	10 October	from remaining parts of Gujarat; some parts of Maharashtra; most parts of Madhya Pradesh & Uttar Pradesh and some parts of Bihar	28°N/86°E, Raxaul, Varanasi, Jabalpur, Akola, Ahilyanagar, Alibag and 18.5°N/ 72°E.
7	13 October	from some parts of Karnataka, some parts of Telangana, most parts of Maharashtra, entire Goa, remaining parts of Madhya Pradesh, Uttar Pradesh, most parts of Chhattisgarh, remaining parts of Bihar, entire Jharkhand, West Bengal & Sikkim and some parts of Odisha & northeastern states.	14°N/72°E, Karwar, Kalburgi, Nizamabad, Kanker, Keonjhargarh, Sagar Island, Guwahati and 28.0°N/92.5°E.
8	14 October	some more parts of Odisha & Chhattisgarh and remaining parts of northeastern states	14°N/72°E, Karwar, Kalaburagi, Nizamabad, Kanker, Chandbali, 21.0°N/ 90.0°E, 22.0°N/ 95.0°E & 23.0°N/ 98.0°E.
9	16 October	Southwest monsoon has withdrawn from the entire country.	

The withdrawal of the SW monsoon 2025 began on 14th September against its normal date of 17th September and withdrew from the country on 16th October. Fig. 2 shows the isochrones and Table 2 shows the details of withdrawal of monsoon over the country.

2.2. *Monthly rainfall distribution*

The sub-division wise rainfall and its departure from normal for each month and season as a whole are given in Table 3. Monthly and Seasonal Rainfall for the country as a whole is depicted in Figs. 3 to 7. Table 8 shows Representative amounts of Heavy Rainfall (12 cm and above) for June, July, August and September 2025.

During the month of June, realized rainfall was 109% of its LPA over the country as a whole, 144% of its LPA over northwest India, 125% of its LPA over central India, 83% of its LPA over east & northeast India and 97% of its LPA over south peninsula. Rainfall over East & Northeast India (271.4 mm) was the 17th lowest since 1901 and the 8th lowest since 2001. The precipitation over the country was normal which was on the positive side except north east India, south peninsula where it was negative. Most sub-divisions received large excess/excess/normal rainfall except Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Bihar, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Chhattisgarh, Marathawada and

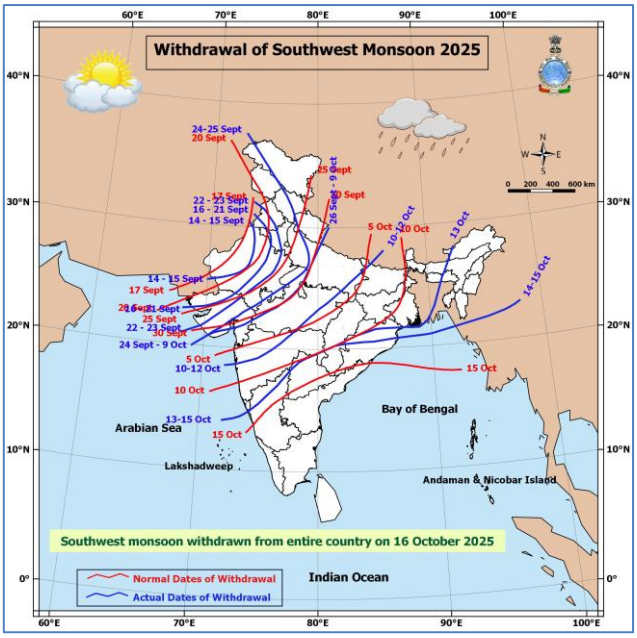

Fig. 2. Withdrawal of Southwest Monsoon 2025

Lakshadweep. Rainfall over East Rajasthan (195.0 mm) was the 2nd highest since 1901 after 1933 (210.0 mm). Rainfall over Assam & Meghalaya (297.7 mm) was the second lowest since 1901 after the lowest rainfall year 1981 (275 mm).

Out of 36 meteorological sub-divisions, 7 received large excess, 8 received excess, 11 received normal & 10 received deficient rainfall.

In association with an onset of Monsoon over Kerala on 24h May, heavy to very heavy rainfall was observed at isolated places over Kerala during the week. The Southwest Monsoon further advanced into some more parts of Chhattisgarh & Odisha, some more parts of north Bay of Bengal, remaining parts of northeastern States and some parts of Sub-Himalayan West Bengal and entire Sikkim on 29th May. Thus, it advanced into parts of eastern and northeastern India at the beginning of week but showed no further progress afterward during the week. heavy to very heavy rainfall continued at isolated places over west coast of India and south peninsular India during first half which reduced thereafter over most parts of the country except east and northeast India.

Five low-pressure systems (LPS) formed during June.

(i) Low Pressure Area over Gujarat & neighbourhood (17-19 June)

(ii) Well Marked Low Pressure Gangetic over West Bengal & neighbourhood (17 - 23 June)

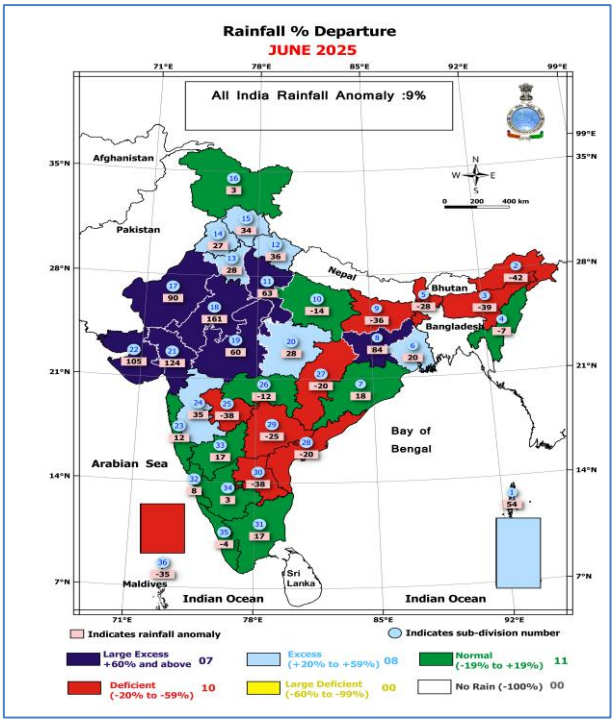

Fig. 3. Rainfall % departureJune 2025

(iii) Low Pressure Area over Northwest Bay of Bengal and adjoining coastal areas of Odisha and West Bengal (26-27 June)

(iv) Low Pressure Area over Saurashtra & Kutch (28-29 June)

(v) Low Pressure Area over Northwest Bay of Bengal and adjoining West Bengal and Bangladesh coasts (29 June-1 July)

Deep Depression (29 -30 May) over the northwest Bay of Bengal off the West Bengal and adjoining Bangladesh coasts and it's weakening into a low pressure area over northeast India supported by consistent low-level convergence of moist winds led to fairly widespread to widespread rainfall, including very heavy to extremely heavy rainfall across Northeast India during 31st May to 4th June. This intense spell of precipitation triggered severe flooding, a series of landslides and urban flooding, significantly impacting lives and property across the region during the same period.

Western Disturbances (WDs), from 29th May to 4th June across northern India supported by low level moisture and wind convergence from the Arabian Sea into the affected regions which resulted into isolated heavy rainfall over Rajasthan, Gujarat Region and west Madhya Pradesh during the second half. Hailstorms were also occurred at isolated places over Western Himalayan Region and adjoining north India during first week.

TABLE 3

Rainfall figures (mm) for each month and season as a whole (June-September 2025)

S. No	Sub-Division	June			July			August			September			Monsoon		
		Act	Normal	%Dep	Act	Normal	%Dep	Act	Normal	%Dep	Act	Normal	%Dep	Act	Normal	%Dep
1	Andaman & Nicobar Islands	643.7	417.5	54%	233.8	387.1	-40%	458.5	397.6	15%	603.7	429.5	41%	1939.7	1631.7	19%
2	Arunachal Pradesh	265.8	454.7	-42%	270.8	529.2	-49%	283.4	343.2	-17%	144.0	348.0	-59%	963.9	1675.1	-42%
3	Assam & Meghalaya	297.7	486.6	-39%	262.7	552.3	-52%	358.8	394.7	-9%	208.3	328.6	-37%	1128.1	1762.2	-36%
4	Nagaland–Manipur–Mizoram–Tripura	327.5	353.2	-7%	323.3	354.2	-9%	280.1	326.0	-14%	235.3	268.3	-12%	1215.6	1301.7	-7%
5	Sub–Himalayan West Bengal & Sikkim	328.6	455.9	-28%	405.3	586.3	-31%	515.3	459.1	12%	346.3	388.2	-11%	1595.6	1889.5	-16%
6	Gangetic West Bengal	298.2	247.9	20%	427.5	344.8	24%	308.6	308.3	0%	230.2	265.8	-13%	1264.6	1166.8	8%
7	Odisha	246.0	209.3	18%	367.7	341.4	8%	257.4	363.8	-29%	282.9	235.7	20%	1154.1	1150.2	0%
8	Jharkhand	348.9	189.5	84%	412.7	318.7	29%	249.3	290.7	-14%	188.6	224.0	-16%	1199.4	1022.9	17%
9	Bihar	104.4	163.3	-36%	200.5	340.5	-41%	246.4	271.9	-9%	135.0	216.5	-38%	686.3	992.2	-31%
10	East Uttar Pradesh	93.0	108.3	-14%	212.0	276.9	-23%	243.7	240.6	1%	117.6	173.4	-32%	666.3	799.2	-17%
11	West Uttar Pradesh	128.0	78.6	63%	257.7	240.3	7%	237.6	228.3	4%	129.1	124.8	3%	752.5	672.0	12%
12	Uttarakhand	240.8	176.8	36%	350.2	417.8	-16%	574.4	385.7	49%	255.2	182.4	40%	1420.5	1162.7	22%
13	Haryana, Chandigarh & Delhi	70.8	55.3	28%	175.5	150.5	17%	196.6	147.7	33%	129.5	77.2	68%	573.0	430.7	33%
14	Punjab	69.2	54.5	27%	146.9	161.4	-9%	254.9	146.2	74%	150.6	77.7	94%	621.5	439.8	41%
15	Himachal Pradesh	135.7	101.1	34%	250.3	255.9	-2%	430.7	256.8	68%	202.3	120.6	68%	1019.1	734.4	39%
16	Jammu & Kashmir	78.5	75.9	3%	179.1	192.6	-7%	319.5	184.9	73%	128.4	95.7	34%	705.4	549.1	28%
17	West Rajasthan	74.7	39.4	90%	198.5	107.8	84%	131.9	95.5	38%	73.3	40.9	79%	478.4	283.6	69%
18	East Rajasthan	195.0	74.7	161%	394.0	228.6	72%	250.2	231.5	8%	170.4	91.8	86%	1009.6	626.6	61%
19	West Madhya Pradesh	189.0	117.8	60%	458.1	297.7	54%	237.2	312.8	-24%	211.2	149.0	42%	1095.6	877.3	25%
20	East Madhya Pradesh	190.2	148.4	28%	606.2	342.7	77%	225.8	362.3	-38%	197.2	190.0	4%	1219.4	1043.4	17%
21	Gujarat Region	298.9	133.3	124%	315.2	340.3	-7%	248.5	307.0	-19%	262.4	146.9	79%	1125.1	927.5	21%
22	Saurashtra & Kutch	192.0	93.6	105%	164.2	196.3	-16%	159.3	156.8	2%	191.8	93.2	106%	707.2	539.9	31%
23	Konkan & Goa	783.2	701.5	12%	985.7	1053.5	-6%	1010.3	741.7	36%	520.0	374.1	39%	3299.2	2870.8	15%
24	Madhya Maharashtra	213.2	157.7	35%	211.5	229.5	-8%	217.6	201.2	8%	255.0	159.0	60%	897.3	747.4	20%
25	Marathwada	83.6	134.7	-38%	170.1	170.4	0%	290.8	176.8	64%	346.2	160.9	115%	890.7	642.8	39%
26	Vidarbha	155.1	175.4	-12%	374.7	309.3	21%	278.3	297.1	-6%	263.8	155.5	70%	1071.9	937.3	14%
27	Chhattisgarh	151.2	188.0	-20%	475.9	369.0	29%	272.9	364.2	-25%	267.4	211.0	27%	1167.4	1132.2	3%
28	Coastal Andhra Pradesh and Yanam	87.1	109.5	-20%	147.2	158.6	-7%	226.4	170.3	33%	159.6	163.0	-2%	620.4	601.4	3%
29	Telangana	99.0	131.4	-25%	229.6	218.5	5%	366.9	226.1	62%	263.2	158.8	66%	958.8	734.8	30%
30	Rayalaseema	44.5	72.3	-38%	73.1	92.1	-21%	189.5	107.3	77%	158.5	136.9	16%	465.5	408.6	14%
31	Tamil Nadu, Puducherry and Karaikal	59.4	50.7	17%	45.4	69.0	-34%	109.7	90.1	22%	111.7	118.6	-6%	326.2	328.4	-1%
32	Coastal Karnataka	929.6	863.6	8%	1351.8	1088.9	24%	806.9	821.3	-2%	307.2	320.1	-4%	3395.4	3093.9	10%
33	North Interior Karnataka	122.8	105.3	17%	143.0	116.5	23%	239.9	119.4	101%	215.4	139.6	54%	721.2	480.8	50%
34	South interior Karnataka	153.7	149.7	3%	194.2	200.6	-3%	208.1	179.5	16%	97.9	148.6	-34%	654.0	678.4	-4%
35	Kerala and Mahe	620.5	648.3	-4%	569.3	653.5	-13%	355.8	445.1	-20%	207.3	271.8	-24%	1753.0	2018.7	-13%
36	Lakshadweep	218.2	335.6	-35%	269.4	289.3	-7%	279.0	232.0	20%	89.6	169.7	-47%	856.3	1026.6	-17%

A fresh wet spell accompanied with isolated heavy to very heavy rainfall over west coast and south peninsular India during 8th-11th June due to north-south trough over the south peninsular India and upper air cyclonic circulations over the Bay of Bengal. The well marked low pressure area moved slowly from Gangetic West Bengal to south Uttar Pradesh between 17–23 June led to a prolonged spell of heavy rainfall over eastern and adjoining central India which in turn caused rapid advancement of Southwest Monsoon covering most parts of the country except some parts of northwest Rajasthan, west Uttar Pradesh, south Punjab and south Haryana & Delhi. In addition, an upper air cyclonic circulation over northeast Rajasthan & neighbourhood extending upto middle tropospheric levels and east-west trough at middle tropospheric levels running across this system caused heavy to very heavy rainfall with isolated extremely heavy rainfall over Gujarat and neighbourhood during the week. Heavy to very heavy rainfall with isolated extremely heavy rainfall was recorded over Konkan & Goa on 19th & 24th June, Gujarat Region on 19th, 21st, 22nd, 24th & 25th June, Gangetic West Bengal, Jharkhand on 19th & 20th June, Assam & Meghalaya on 19th June, Madhya Maharashtra on 20th June, East Madhya Pradesh on 22nd June, West Madhya Pradesh on 23rd & 25th June, and Sub-Himalayan West Bengal & Sikkim on 24th June.

During the last week, in all total three low pressure systems formed. Out of which two (26–27 June and 29 June–2 July) formed over Northwest Bay of Bengal & neighbourhood while one formed over Saurashtra & Kutch on 28–29 June. The monsoon trough positioned near / south of its normal position. An east–west shear line lay across central India at the middle and lower tropospheric levels. Due to the these favourable synoptic conditions, excess to large excess rainfall was reported across most of the sub-divisions of central and northwest India, including the Western Himalayan Region. Moreover, it also caused heavy to very heavy rainfall, including isolated extremely heavy rainfall spells over the same area resulted in floods over north Odisha, Jharkhand and landslides mainly over Himachal Pradesh.

A fresh spell of heat wave was observed over north, northwest and adjoining central India during first forthnight of the month and abated thereafter. Thus, during June 2025, less number of heatwave days were observed. Thunderstorms accompanied by squally/gusty winds were reported at isolated places across several parts of the country during the month.

During the month, negative sea surface temperatures (SSTs) were observed over parts of the eastern Pacific Ocean, while positive SSTs were seen across the rest of the equatorial Pacific. Positive SSTs were observed over most parts of the Indian Ocean, including the Bay of Bengal, whereas negative SSTs were observed over the middle parts of the Arabian Sea and neutral El Nino-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific ocean.

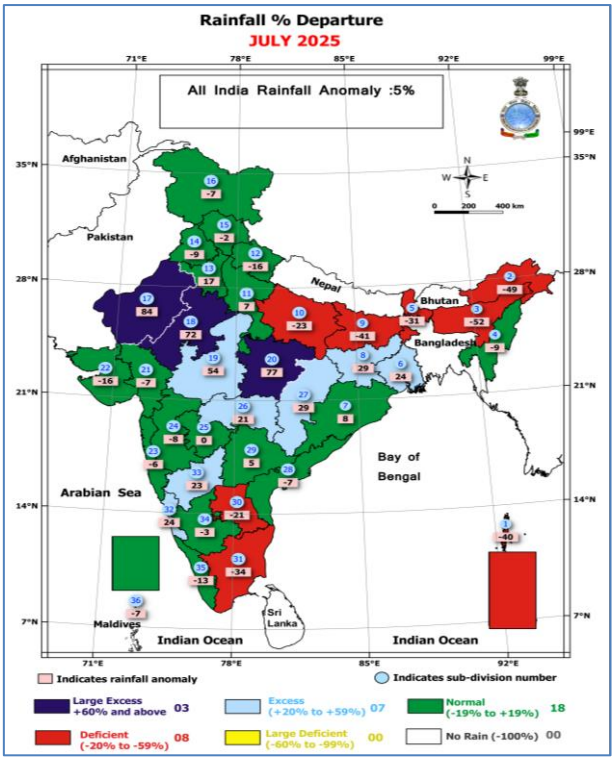

Fig. 4. Rainfall % departure July 2025

During the month of July, rainfall realized over the country as a whole was 105% of its LPA, 98% of its LPA over the south peninsula, 122% of its LPA over central India, 113% of its LPA over northwest India and 74% of its LPA over east & northeast India. Rainfall over the homogeneous region of East & Northeast India (312.4 mm) was the 7th lowest since 1901 and 4th lowest since 2001.

Except for Arunachal Pradesh, Assam & Meghalaya, Sub Himalayan West Bengal & Sikkim, Bihar, East Uttar Pradesh, Andaman and Nicobar Islands, Tamil-Nadu, Puducherry & Karaikal and Rayalaseema, the remaining sub-divisions received large excess/excess/normal rainfall. Out of 36 meteorological sub-divisions, 3 received large excess, 7 received excess, 18 received normal and 8 sub-divisions received deficient rainfall. Rainfall over East Madhya Pradesh (606.2 mm) was third highest since 1901. Rainfall over East Rajasthan (394.0 mm) was fifth highest since 1901. Rainfall over Assam & Meghalaya (262.7 mm) was the lowest since 1901, and rainfall over Arunachal Pradesh (270.8 mm) was the fourth lowest since 1901.

In July, four depressions formed during 14 - 15 July, 15 - 16 July, 17 - 20 July (remnant of depression over Gangetic West Bengal) and 25 - 26 July (from remnant of cyclone WIPHA from the South China Sea). Three depressions formed over land and one over the north Bay of Bengal. One low pressure area formed over Gangetic West Bengal & neighbourhood during 6-9 July.

A low pressure area formed over Gangetic West Bengal & neighbourhood caused heavy to very heavy rainfall with isolated extremely heavy rainfall over Odisha, Chhattisgarh and Madhya Pradesh during 6th-9th July and Vidarbha during 8th-9th July. During 2nd week of July, the monsoon trough remained active and close to its normal position on most of the days. An east-west trough was also observed from northeast Arabian Sea to Gangetic West Bengal in middle to upper tropospheric levels almost throughout the week. Additionally, a low pressure area formed and persisted over Gangetic West Bengal and neighbourhood during the second half of the week. The southwest monsoon was active / vigorous over West coast, Northeast, Central & adjoining Eastern and Western India. During the third week, the monsoon trough remained near its normal position on most of the days. In association with the formation of above twin low pressure systems and their subsequent intensifications into Depressions over southeast Gangetic West Bengal and adjoining Bangladesh during 14-15 July and over central parts of Rajasthan 15-16 July and favourable monsoon trough position, for the third consecutive week, Excess / Large Excess rainfall observed over most of the meteorological sub-divisions of northwest and adjoining central India. The southwest monsoon was active / vigorous over West coast, Central & adjoining Eastern and northern India. Formation of well marked low pressure area over southeast Uttar Pradesh & adjoining southwest Bihar and it's concentration into a Depression over southeast Uttar Pradesh on 17th July. Due to formation of above Land Depression over southeast Uttar Pradesh and neighbourhood and its movement to northwest Rajasthan during 17th-21st July and favourable monsoon trough position, very heavy to extremely heavy rainfall spell observed over east Uttar Pradesh, Madhya Pradesh and Rajasthan between 17th and 19th July.

A prolonged spell of very heavy to extremely heavy rainfall occurred over Madhya Pradesh, east Rajasthan and Gujarat Region during the last week of the month due to depression over the northwest Bay of Bengal and its rapid west-northwestward movement up to northwest Madhya Pradesh and adjoining areas. The presence of this Depression and favourable monsoon trough position caused very heavy to extremely heavy rainfall at isolated places over Madhya Pradesh; Gujarat Region and East Rajasthan. A spell of very heavy to extremely heavy

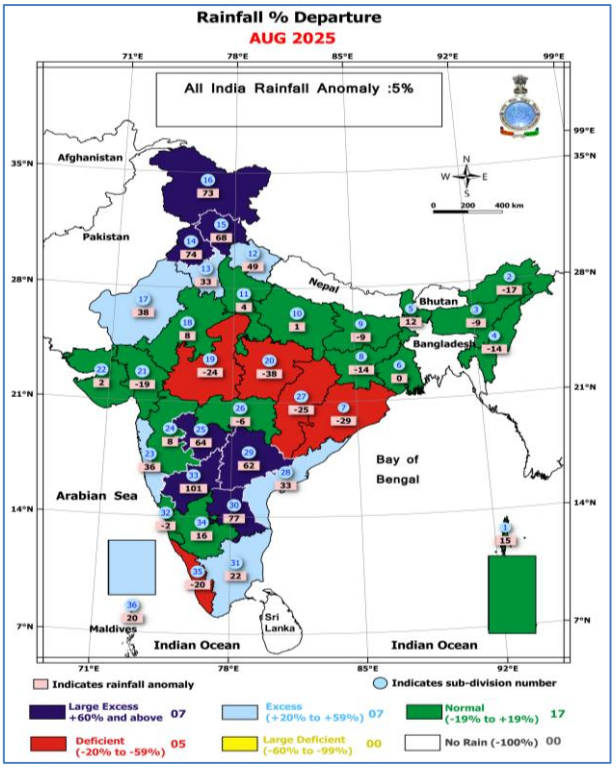

Fig. 5. Rainfall departure August 2025

rainfall also occurred over coastal Karnataka, Konkan & Goa and Madhya Maharashtra during 25th–28th July due to an active off-shore trough along Gujarat to Kerala coasts.

During July 2025, sea surface temperatures (SSTs) were near average over the central and eastern equatorial Pacific Ocean. SSTs were above average over the western parts of the equatorial Pacific Ocean. In July 2025, sea surface temperatures (SSTs) were warmer than average across much of the equatorial Indian Ocean, while near-average conditions prevailed over the western Indian Ocean. Cooler SSTs were observed in the Arabian Sea and the northern Bay of Bengal. Neutral El Niño–Southern Oscillation (ENSO) conditions are prevailed over the equatorial Pacific region.

During August 2025, the realized rainfall was 134% of its LPA over northwest India, 86% of its LPA over central India, 131% of its LPA over south peninsula and 91% of its LPA over east & northeast India. Rainfall realized over the country as a whole was 105% of its LPA during August 2025. Rainfall over All India (267.8 mm) was the 46th highest since 1901 and the 7th highest since 2001. Rainfall over the homogeneous region of Northwest India (264.6 mm) was the 13th highest since 1901 and the highest since 2001. Rainfall over the homogeneous region of south peninsular India (250.4 mm) was the 8th highest since 1901 and 3rd highest since 2001. Seven sub-divisions

recorded large excess, 7 excess, 17 normal and 5 deficient, no subdivision recorded large deficient or no rain.

During August 2025, one depression formed over Bay of Bengal during 18-19 August. Besides this depression, a well-marked low (during 26–28 Aug) and two low pressure areas (during 13-18 Aug and 22-25 Aug) formed during the month.

During first fortnight of August, two western disturbances moved very slowly across Western Himalayan Region in succession. The western end of the monsoon trough shifted north of its normal position and the eastern end shifted close to the foothills of the Himalayas. These two western disturbances in succession, coupled with favourable monsoon trough position close to the foot hills of Himalayas resulted in continuation of very heavy to extremely heavy rainfall spell over Himalayan Region, northwest and northeast India during the week. It led to flooding in parts of Uttar Pradesh and Bihar which adversely affected normal life over that region. However, for the rest of the country except peninsular India, the weak monsoon conditions prevailed towards the end of the fortnight. Also, a low pressure area formed over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts caused very heavy to isolated extremely heavy rainfall over Telangana and coastal Andhra Pradesh & Yanam.

During second forthnight of August, formation of two low pressure systems in succession one depression over northwest & adjoining westcentral Bay of Bengal and north Andhra Pradesh-south Odisha coasts (17-20 August) and other low pressure area over Gangetic West Bengal & neighbourhood (22-25 Aug). Their movement across central India along with the favourable monsoon trough position, active monsoon conditions observed over central and adjoining peninsular India. An extreme heavy rainfall spell was observed over the West coast, particularly in the Ghat areas of Madhya Maharashtra and Konkan including Mumbai and parts of south Gujarat and peninsular India. It was mainly due to presence of Depression over the westcentral and adjoining northwest Bay of Bengal off north Andhra Pradesh–south Odisha coasts, a strong east–west shear line across central Indian region, an active off-shore trough along the west coast and an upper air cyclonic circulation over the northeast Arabian Sea and adjoining areas.

Two western disturbances moved slowly over north India in succession. Out of which second one became active and interacted with monsoonal system causing moisture incursion from both Bay of Bengal and Arabian Sea takes place over the region. In association with this

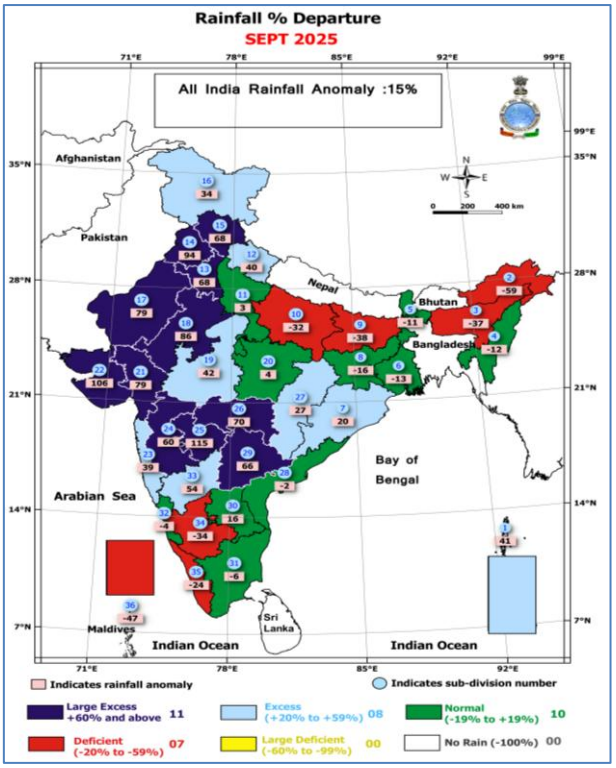

Fig. 6. Rainfall departure September 2025

synoptic conditions, exceptionally heavy rainfall recorded at isolated places over east Rajasthan on 23rd & Jammu Region on 27th August. Very heavy to isolated extremely heavy rainfall spell were also observed over west and northwest India during the week. It caused landslides over the hilly region of Katra in Jammu Region and severe flooding over Jammu, Punjab and parts of Rajasthan along with flash floods in some areas of these regions.

In August 2025, warmer than average SSTs were seen over eastern parts of the equatorial Indian Ocean & near average over the western Indian Ocean and sea surface temperatures (SSTs) were near average over central and equatorial Pacific Ocean. Neutral El Nino-Southern Oscillation (ENSO) conditions prevailed over the equatorial Pacific region.

During September 2025, Rainfall realized was 130 % of its LPA over northwest India, 144% of its LPA over central India, 69% of its LPA over east & northeast India and 112% of its LPA over south peninsula. Rainfall realized over the country as a whole was 115% of its LPA during September 2025. Eleven sub-divisions recorded large excess, 8 excess, 10 normal and 7 deficient. Rainfall over All India (193.6 mm) was the 7th highest since 2001 and the 37th highest since 1901.Rainfall over Northwest India in September 2025 was 134.0 mm, the 6th highest since 2001 and the 35th highest since 1901. Over Central

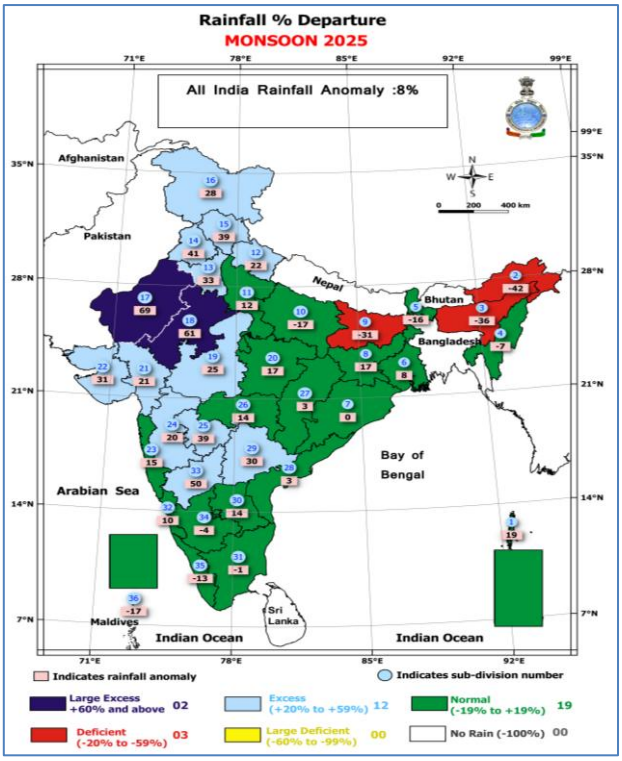

Fig. 7.Rainfall % departure Monsoon 2025

India, rainfall total was 255.3 mm, marking it 5th highest since 2001 and the 16th highest since 1901. In contrast, East & Northeast India received 195.9 mm of rainfall which is 2nd lowest since 2001 and the 6th lowest since 1901.

During the month, five low-pressure systems formed (one well-marked low pressure area over northwest Bay of Bengal during 3-4 September followed by a Deep depression during 6-10 September over North Gujarat and adjoining Southwest Rajasthan, one depression during 26-28 September over northwest and adjoining westcentral Bay of Bengal off south Odisha-north Andhra Pradesh coasts, and two low pressure area one during 12-15 September over west central & adjoining northwest Bay of Bengal off north Andhra Pradesh and south Odisha coast and other during 22-24 Sept over northeast Bay of Bengal and neighborhood.

A low pressure area formed over northwest Bay of Bengal caused isolated very heavy to extremely heavy rainfall over Odisha and heavy rainfall over coastal Andhra Pradesh and it's further intensified into a Deep Depression & its movement along west-northwestwards from northwest Bay of Bengal to southeast Rajasthan across central India, heavy to very heavy rainfall with isolated extremely heavy rainfall occurred over parts of central and adjoining northwest India during 1st week of the month.

During the 2nd week, another low pressure area formed over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts on 12th and moved from south Odisha-Andhra Pradesh coasts to central India during 12-14 September which caused heavy to extremely heavy rainfall spell across eastern peninsular India, central and adjoining western India. Heavy to extremely heavy rainfall spell observed over Western Himalayan Region during 13-16 September. It was mainly due to impact of lower level monsoonal easterly winds to these areas and the local topography which caused flash floods and landslides over Uttarakhand and Himachal Pradesh. Heavy to extremely heavy rainfall spells also observed over Bihar, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya during the week due to the cyclonic circulations over Bihar and over North Bangladesh with southerly/southeasterly wind convergence over the region from North Bay of Bengal.

During third week, a low pressure area formed over northeast Bay of Bengal & neighbourhood and it's movement along west-northwestwards, towards coastal areas of Gangetic West Bengal and north Odisha caused extremely heavy rainfall at isolated places of Gangetic West Bengal on 23rd and over Odisha on 24th. Heavy to very heavy rainfall was also observed at isolated places over Jharkhand and Chhattisgarh on 24th September.

During the 4th week, Depression formed over northwest & adjoining westcentral Bay of Bengal off South Odisha-North Andhra Pradesh coasts and it's westwards movement towards south Odisha coast and weakening into a well-marked low pressure area over West Vidarbha & adjoining north Madhya Maharashtra, Gulf of Cambay, Gulf of Kutch & neighbourhood caused extremely heavy rainfall at isolated places over Konkan & Goa, Gujarat State on 29th September. Very heavy rainfall was also recorded at isolated places over Odisha on 27th & 29th over Jharkhand, Telangana, Rayalaseema on 27th; over Marathwada on 27th-28th; over Madhya Maharashtra on 28th & 29th; over Konkan & Goa, Gujarat Region on 28th September and over east Rajasthan on 1st October.

In September 2025, neutral El Nino-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific and neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean.

2.3. *Withdrawal of southwest Monsoon*

Fig. 2 shows the isochrones and Table 2 shows the details of withdrawal of Southwest monsoon 2025. With reduction in the rainfall and formation of the anti-cyclonic circulation in lower troposphere, withdrawal of the monsoon began on 14th September 2025 from some parts of west Rajasthan against the normal date of 17

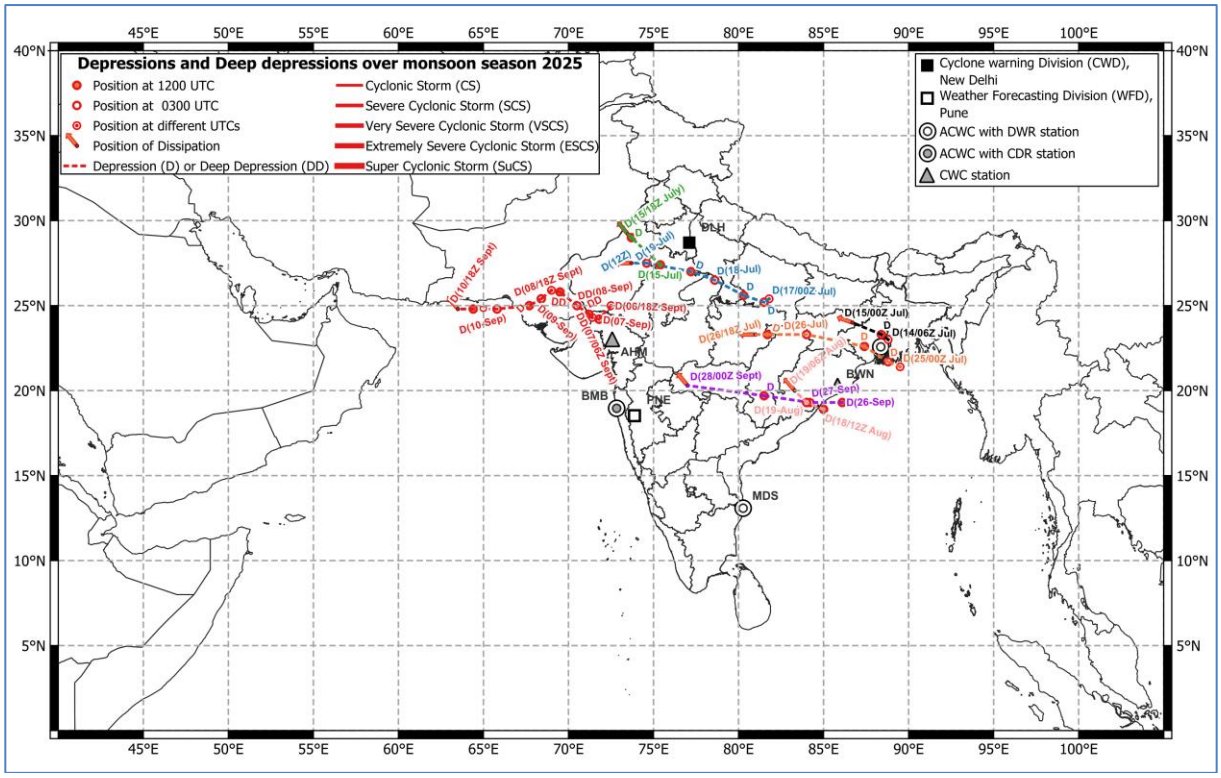

Fig. 8.Track of cyclonic storm and depressions during monsoon 2025

TABLE 4

Details of the weather systems during June 2025

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
			I. Cyclonic storm /Low Pressure Area			
1	Low Pressure Area	17 (Mor) -18	Gujarat & neighbourhood	Westwards	Central parts of Rajasthan	Initially it lay as a cycir over south Gujarat & neighbourhood and extended upto 7.6 km above m.s.l. on 16th. The associated cyclonic circulation extended upto 5.8 km above m.s.l. tilting southwards with height. LPA became less marked on 19th morning. However, the associated upper air cyclonic circulation lay over southwest Rajasthan which extended upto 1.5 km above m.s.l. & became less marked on 20th.
2	Well Marked Low Pressure Area	17 (eve)-20 (Mor)	Gangetic West Bengal & neighbourhood	Westwards	Northeast Jharkhand & neighbourhood	Under the influence of cycir over northwest Bay of Bengal & neighbourhood, a low pressure area formed over southwest Bangladesh and adjoining Gangetic West Bengal on 17th morning. Weakened into a low pressure area over south Bihar & neighbourhood on 20th & became less marked on 23rd morning. However, the associated upper air cyclonic circulation lay over southeast Uttar Pradesh & neighbourhood. It lay over central parts of northeast Madhya Pradesh which extended upto 5.8 km above m.s.l. tilting southwards with height on 25th & 26th and became less marked on 27th.
3	Low	26-27	Northwest Bay of Bengal	Westwards	North Odisha and adjoining	Initially, it lay as a upper air cyclonic

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
	Pressure Area	(Mor)	and adjoining coastal areas of Odisha and West Bengal		Gangetic West Bengal	circulation over northwest Bay of Bengal & adjoining north Odisha-West Bengal coasts on 25th. The associated cyclonic circulation extended upto 5.8 km above m.s.l. tilting southward with height. It became less marked on 27th. However, the associated upper air cyclonic circulation merged with the east-west trough which ran from the cyclonic circulation over southwest Rajasthan to Bangladesh.
4	Low Pressure Area	28-29 (Mor)	Saurashtra & Kutch	Northwards	Saurashtra & Kutch and adjoining south Rajasthan	Initially, it lay as an upper air cyclonic circulation lay over Saurashtra & Kutch and adjoining northeast Arabian sea which extended upto mid tropospheric level tilting southwestwards with height on 28th morning. It became less marked on 29th. However, the associated cyclonic circulation lay over south Rajasthan & adjoining north Gujarat and extended between 3.1 & 7.6 km above m.s.l. on 29th. It persisted over the same area at 3.1 km above m.s.l. on 30th June and became less marked on 1st July.
5	Low Pressure Area	29 Jun (Mor)-1 Jul.	Northwest Bay of Bengal and adjoining West Bengal & Bangladesh coasts	Westwards	Jharkhand and neighbourhood	Initially, it lay as an upper air cyclonic circulation lay over southwest Bangladesh & adjoining Gangetic West Bengal which extended upto 4.5 km above m.s.l. tilting southwestwards with height on 28th. The associated cyclonic circulation extended upto 7.6 km above m.s.l. which persisted over the same region. It became less marked on 2nd morning. However, the associated cyclonic circulation lay over south Jharkhand & neighbourhood and extended upto 5.8 km above m.s.l. tilting southwards with height on 2nd Jul & merged with the circulation over north Odisha and adjoining Gangetic West Bengal on 3rd July.
II. Western Disturbances /Eastward moving Systems						
(a) As a trough						
1	At 5.8 km above m.s.l.	6-7	Ran roughly along Long.55°E to the north of Lat.31°N	Eastwards	Ran roughly along Long.59°E to the north of Lat.27°N	It then lay as a cyclonic circulation over Ladakh & adjoining Kashmir at 5.8 km above m.s.l. on 8th which became less marked on 9th.
2	At 5.8 km above m.s.l.	8-10	Ran roughly along Long.54°E to the north of Lat.25°N	Eastwards	Ran roughly along Long.62°E to the north of Lat.28°N	Became less marked on 11th.
3	At 5.8 km above m.s.l.	11-17	Ran roughly along Long.58°E to the north of Lat.30°N	Eastwards	Ran roughly along Long.72°E to the north of Lat.30°N	It then lay as a cyclonic circulation over Punjab & neighbourhood between 3.1 and 4.5 km above m.s.l. with the trough aloft in middle tropospheric westerlies with its axis at 5.8 km above m.s.l. ran roughly along Long.72°E to the north of Lat.30°N on 18th which moved away northeastwards on 19th.
III. Other upper air cyclonic circulations.						
1	At 0.9 km above m.s.l.	1-3	Haryana	Eastwards	Northwest Uttar Pradesh at 1.5 km above m.s.l.	Became less marked on 4th.
2	At 0.9 km above m.s.l.	1	Northeast Assam	Stationary	In situ	Became less marked on 2nd.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
3	At 1.5 km above m.s.l.	2-3	East Bihar & neighbourhood	Stationary	In situ	Became less marked on 4th.
4	At 0.9 km above m.s.l.	3	Haryana	Stationary	In situ	Became less marked on 4th.
5	At 1.5 km above m.s.l.	4-5	South Punjab & neighbourhood	Eastwards	South Haryana & neighbourhood	Became less marked on 6th.
6	At 0.9 km above m.s.l.	4-5	North Bangladesh & neighbourhood	Stationary	In situ	Became less marked on 6th.
7	At 0.9 km above m.s.l.	4	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 5th.
8	Between 1.5 & 3.1 km above m.s.l.	4	South Gujarat & neighbourhood	Stationary	In situ	Became less marked on 5th.
9	At 1.5 km above m.s.l.	5(Mor)	Haryana & neighbourhood	Stationary	In situ	Became less marked on 5th.
10	At 1.5 km above m.s.l.	5(Mor)	Jharkhand & adjoining south Bihar	Stationary	In situ	Merged with the trough which ran from south Chhattisgarh to north Bangladesh on 5th.
11	At 0.9 km above m.s.l.	5-10	Central Pakistan & adjoining northwest Rajasthan	Eastwards	North Haryana & neighborhood at 1.5 km above m.s.l.	Became less marked on 11th.
12	Between 3.1 and 4.5 km above m.s.l.	5-6	North interior Karnataka & adjoining Marathwada and Telangana	Southwards	North interior Karnataka & neighbourhood at 3.1 km above m.s.l.	Became less marked on 7th.
13	Upto 1.5 km above m.s.l.	6-8	Northwest Uttar Pradesh & neighbourhood	Northwards	Southeast Himachal Pradesh & adjoining Uttarakhand	Became less marked on 9th.
14	Upto 1.5 km above m.s.l.	6-7	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 8th.
15	Upto 1.5 km above m.s.l.	7	Northeast Madhya Pradesh & neighbourhood	Stationary	In situ	Became less marked on 8th.
16	At 5.8 km above m.s.l.	8-10 (Mor)	Southeast & adjoining eastcentral Bay of Bengal	Northwards	Central parts of Bay of Bengal	Became less marked on 10th.
17	At 1.5 km above m.s.l.	8	Central Pakistan & neighbourhood	Stationary	In situ	Became less marked on 9th.
18	Upto 1.5 km above m.s.l.	8	East Bangladesh & neighbourhood and extended	Stationary	In situ	Became less marked on 9th.
19	Between 1.5 & 5.8 km above m.s.l.	9-10	Northwest Bay of Bengal and adjoining north coastal Odisha & south Gangetic West Bengal	Westwards	North Odisha & neighbourhood	Became less marked on 11th.
20	At 1.5 km above m.s.l.	9-11 (Mor)	North Chhattisgarh and adjoining east Madhya Pradesh	Westwards	East Madhya Pradesh and neighbourhood	Became less marked on 11th.
21	At 1.5 km above m.s.l.	10	North Pakistan & neighborhood off Punjab	Stationary	In situ	Became less marked on 11th.
22	At 1.5 km above m.s.l.	10-11	Central parts of south Uttar Pradesh & neighborhood	Eastwards	East Uttar Pradesh and extended upto 1.5 km above m.s.l.	Became less marked on 12th.
23	Upto 5.8 km above m.s.l.	11-16	Westcentral Bay of Bengal off north coastal Andhra Pradesh coast	Westwards	South Gujarat & neighbourhood and extended upto 7.6 km above m.s.l.	Under its influence, a low pressure area formed over Gujarat & neighbourhood on 17th morning.
24	At 0.9 km above m.s.l.	11-11 (eve)	North Haryana & Chandigarh	Eastwards	Haryana & neighbourhood	Became less marked on 12th morning.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
25	at 0.9 km above m.s.l.	12	Punjab & neighbourhood	Stationary	In situ	Became less marked on 13th.
26	At 1.5 km above m.s.l.	12	West Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 13th.
27	Between 1.5 & 3.1 km above m.s.l.	12	West Rajasthan & neighbourhood	Stationary	In situ	Became less marked on 13th.
28	At 0.9 km above m.s.l.	13-16	Northwest Rajasthan	Northwards	South Punjab & neighbourhood	Became less marked on 17th.
29	At 3.1 km above m.s.l.	14-16	South Bangladesh & adjoining north Bay of Bengal	Westwards	Northwest Bay of Bengal & neighbourhood between 3.1 & 7.6 km above m.s.l. tiltingadjoining Gangetic West Bengal on 17th southwestwards with height	Under its influence, a low pressure area formed over southwest Bangladesh and morning.
30	At 0.9 km above m.s.l.	14-15	central Assam & neighbourhood	Stationary	In situ	Became less marked on 16th.
31	Between 3.1 & 5.8 km above m.s.l.	14	North Odisha & neighbourhood titling southwestwards with height	Stationary	In situ	Merged with the cyclonic circulation over northwest Bay of Bengal & neighbourhood on 15th.
32	At 5.8 km above m.s.l.	14	Westcentral Bay of Bengal off north coastal Andhra Pradesh coast	Stationary	In situ	Merged with the cyclonic circulation over northwest Bay of Bengal & neighbourhood on 15th.
33	At 1.5 km above m.s.l.	15-16	South Himachal Pradesh & adjoining north Uttarakhand	Westwards	Northeast Punjab & neighbourhood at 3.1 km above m.s.l.	Became less marked on 17th.
34	At 0.9 km above m.s.l.	15	East Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 16th.
35	Upto 1.5 km above m.s.l.	16-17	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 18th.
36	Between 3.1 & 5.8 km above m.s.l.	18	Central parts of Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 19th.
37	Upto 4.5 km above m.s.l.	20 (Mor)-21	Northeast Rajasthan & neighbourhood	Stationary	In situ	Became less marked on 22nd.
38	At 1.5 km above m.s.l.	21-24	Central parts of Assam	Stationary	In situ	Became less marked on 25th.
39	Between 1.5 & 5.8 km above m.s.l.	22	Bangladesh and adjoining Gangetic West Bengal tilting southwards with height	Stationary	In situ	Became less marked on 23rd.
40	Between 5.8 & 7.6 km above m.s.l.	23-25	Westcentral and adjoining northwest Bay of Bengal off north coastal Andhra Pradesh & south Odisha coast tilting southwards with height		Northwest Bay of Bengal and adjoining north Odisha-West Bengal coasts	Under it's influence, a low pressure area formed over Northwest Bay of Bengal and adjoining coastal areas of Odisha and West Bengal on 26th.
41	At 3.1 km above m.s.l.	23	Saurashtra & Kutch	Stationary	In situ	Became less marked on 24th.
42	Between 3.1 and 7.6 km above m.s.l.	24	South Jharkhand & neighbourhood tilting southwards with height	Stationary	In situ	Became less marked on 25th.
43	Upto 5.8 km above m.s.l.	27	Southwest Rajasthan tilting southwestwards with height	Stationary	In situ	Became less marked on 28th.
44	At 0.9 km above m.s.l.	28	Northeast Assam	Stationary	In situ	Became less marked on 29th.
45	Upto 1.5 km above m.s.l.	29	Central parts of south Uttar Pradesh	Stationary	In situ	Merged with the east-west trough ran from southwest Uttar Pradesh to the cyclonic

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
						circulation associated with the low pressure area over coastal Gangetic West Bengal & neighbourhood on 30th June.
46	Upto 1.5 km above m.s.l.	29	North Haryana & neighbourhood	Stationary	In situ	Became less marked on 30th.
47	Upto 5.8 km above m.s.l.	29	Central parts of north Arabian Sea	Stationary	In situ	Became less marked on 30th.
			IV. Other troughs / Wind Discontinuity			
1	At m.s.l	1-2	Ran from central parts of east Uttar Pradesh to Arunachal Pradesh across central parts of Bihar, Sub-Himalayan West Bengal, central parts of Assam	Oscillatory	Ran from east Uttar Pradesh to northeast Assam across central parts of Bihar, Sub-Himalayan West Bengal & Sikkim and Assam at 0.9 km above m.s.l.	Became less marked on 3rd.
2	At 1.5 km above m.s.l.	1-3	Ran roughly along Long.90°E to the north of Lat.20°N	Eastwards	Ran roughly along Long.92°E to the north of Lat. 22°N	Became less marked on 4th.
3	At 3.1 km above m.s.l.	4-5	Roughly along Long.87°E to the north of Lat.22°N	Eastwards	Roughly along Long.88°E to the north of Lat.22°N	Became less marked on 6th.
4	At 1.5 km above m.s.l.	5	Ran from south Chhattisgarh to north Bangladesh across interior Odisha, the cyclonic circulation over Jharkhand & adjoining south Bihar, northern parts of West Bengal	Stationary	In situ	Became less marked on 6th.
5	At 1.5 km above m.s.l.	6	Ran from south Madhya Maharashtra to coastal Andhra Pradesh across north Interior Karnataka and Telangana	Stationary	In situ	Became less marked on 7th.
6	At 1.5 km above m.s.l.	7	Ran from east Vidarbha to north interior Karnataka	Stationary	In situ	Became less marked on 8th.
7	Between 3.1 & 4.5 km above m.s.l.	9-10	Ran from north Tamil Nadu to south Maharashtra coast across interior Karnataka	Oscillatory	As a shear zone roughly along Lat.15°N over the Indian Region	Became less marked on 11th.
8	At 0.9 km above m.s.l.	9(Mor)-10	Ran from the cyclonic circulation over northwest Uttar Pradesh and neighbourhood to north Madhya Pradesh	Oscillatory	Ran from northwest Uttar Pradesh to west central Bay of Bengal across north Madhya Pradesh, south Chhattisgarh and central Odisha	Became less marked on 11th.
9	At 0.9 km above m.s.l.	11-15	Ran from northeast Rajasthan to the upper air cyclonic circulation over westcentral Bay of Bengal off north coastal Andhra Pradesh coast across Madhya Pradesh, Chhattisgarh	Oscillatory	ran from the upper air cyclonic circulation over north Rajasthan & neighbourhood to west Madhya Pradesh at 1.5 km above m.s.l.	Became less marked on 16th.
10	Between 3.1 km to 5.8 km above m.s.l.	12-14	Ran from the cyclonic circulation over north coastal Andhra Pradesh and adjoining south Odisha to coastal Karnataka across Chhattisgarh, Marathwada, interior Karnataka	Oscillatory	Ran from the upper air cyclonic circulation over Marathwada & neighbourhood to coastal Andhra Pradesh across Telangana	Became less marked on 15th.
11	At 3.1 km above m.s.l.	14	Ran from the cyclonic circulation over south	Stationary	In situ	Became less marked on 15th.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
			Bangladesh & adjoining north Bay of Bengal to south Odisha			
12	Upto 1.5 km above m.s.l.	15	Ran from east Madhya Pradesh to Bangladesh across Chhattisgarh, Jharkhand & Gangetic West Bengal tilting southwestwards with height	Stationary	In situ	Became less marked on 16th.
13	At 0.9 km above m.s.l.	17	Ran form the cyclonic circulation associated with low pressure area over Gujarat Region & neighbourhood to Jharkhand across Madhya Pradesh & north Chhattisgarh	Stationary	In situ	Became less marked on 18th.
14	Between 3.1 & 5.8 km above m.s.l.	18-22	Ran from Punjab to north Gujarat Region across the cyclonic circulation over central parts of Rajasthan	Oscillatory	Ran from north Punjab to north Bihar across south Haryana, the cyclonic circulation associated with low pressure area over central parts of south Uttar Pradesh at 0.9 km above m.s.l.	Became less marked on 23rd.
15	At 0.9 km above m.s.l.	19-23 (Mor)	Ran from south Punjab to south Assam across the cyclonic circulation over northeast Rajasthan, north Madhya Pradesh and the cyclonic circulation associated with the well marked low-pressure area over Jharkhand & adjoining Gangetic West Bengal	Oscillatory	Ran from Kutch & neighbourhood to the cyclonic circulation over Bangladesh and adjoining Gangetic West Bengal across Madhya Pradesh, the cyclonic circulation associated with low pressure area over southeast Uttar Pradesh & neighbourhood and Jharkhand at 3.1 km above m.s.l.	Became less marked on 23rd.
16	At m.s.l.	19	Ran from north Konkan coast to north Kerala coast	Stationary	In situ	Became less marked on 20th.
17	Upto 1.5 km above m.s.l.	23-25 (Mor)	Ran from the cyclonic circulation over central parts of south Uttar Pradesh to northwest Bay of Bengal across northeast Madhya Pradesh, Jharkhand & north Odisha	Oscillatory	Ran from central parts of Pakistan to the cyclonic circulation over northwest Bay of Bengal & adjoining north Odisha-West Bengal coasts across northern parts of Rajasthan, the cyclonic circulation over central parts of northeast Madhya Pradesh, north Chhattisgarh and north Odisha	Became less marked on 25th.
18	At 3.1 km above m.s.l.	23	Ran roughly along Long.87°E to the north of Lat.21°N	Stationary	In situ	Became less marked on 24th.
19	At 0.9 km above m.s.l.	24	Ran from Punjab to north Bangladesh across the cyclonic circulation over central parts of south Uttar Pradesh	Stationary	In situ	Became less marked on 25th.
20	At 3.1 km above m.s.l.	24-26	Ran from northeast Arabian Sea to the cyclonic circulation over south Jharkhand & neighbourhood	Oscillatory	Ran from northeast Arabian Sea to the cyclonic circulation associated with the low pressure area over northwest Bay of Bengal	Merged with the east-west trough from the cyclonic circulation over southwest Rajasthan to Bangladesh on 27th.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
					and adjoining coastal areas of Odisha and West Bengal across south Gujarat, Madhya Pradesh, Chhattisgarh and extended between 1.5 & 7.6 km above m.s.l.	
21	Upto 5.8 km above m.s.l.	27-29	Ran from the cyclonic circulation over southwest Rajasthan to Bangladesh across east Rajasthan, north Madhya Pradesh, north Jharkhand, Gangetic West Bengal and tilting southward with height	Oscillatory	Ran from the upper air cyclonic circulation over south Rajasthan & adjoining north Gujarat to the cyclonic circulation associated with the low pressure area over northwest Bay of Bengal and adjoining West Bengal and Bangladesh coasts across Madhya Pradesh, north Chhattisgarh and north Odisha between 3.1 & 5.8 km above m.s.l. tilting southward with height	Became less marked on 30th June.
22	Between 0.9 to 3.1 km above m.s.l.	30 Jun-1 Jul (Mor)	Ran from southwest Uttar Pradesh to the cyclonic circulation associated with the low pressure area over coastal Gangetic West Bengal & neighbourhood across southeast Uttar Pradesh, Jharkhand and Gangetic West Bengal and neighbourhood	Oscillatory	Ran from southwest Rajasthan to central parts of Bay of Bengal across Madhya Pradesh, Jharkhand and the cyclonic circulation associated with the low pressure area over Gangetic West Bengal & adjoining north Odisha at 3.1 km above m.s.l.	Became less marked on 1 Jul.

TABLE 5

Details of the weather systems during July 2025

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
I. Depression/Well marked Low/Low Pressure area						
1	Low Pressure area	6-9	Gangetic West Bengal & neighbourhood	Westwards	Gangetic West Bengal & adjoining Jharkhand	It became less marked. However, the associated cyclonic circulation lay over south Jharkhand & neighbourhood which extended upto 5.8 km above m.s.l. on 10th. It lay over north Chhattisgarh and neighbourhood and extended upto 5.8 km above m.s.l. on 11th. With the same vertical extent, it lay over northeast Madhya Pradesh & neighbourhood on 12th. It lay over central parts of north Madhya Pradesh & neighbourhood and extended upto 7.6 km above m.s.l. on 13th. Under its influence, a low pressure area formed over northwest Madhya Pradesh & neighbourhood on 13th evening.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
2	Depression	15(0830)-15(1730)	Central parts of Rajasthan	Westwards	Northwest Rajasthan	Initially, it lay as a low pressure area over northwest Madhya Pradesh & neighbourhood on 13th evening. lay then as a well marked low pressure area over northeast Rajasthan & adjoining northwest Madhya Pradesh on 14th. Details are given in the Article, 'Cyclonic storms & depression over the north Indian ocean-2025'
3	Depression	14(1130)-15(0530)	southeast Gangetic West Bengal and adjoining Bangladesh	Westwards	Jharkhand and neighbourhood	Initially, it lay as a low pressure area formed over north Bay of Bengal & adjoining coastal areas of Bangladesh, West Bengal & north Odisha on 13th evening. it then lay as a well marked low pressure area over southwest Bangladesh and adjoining Gangetic West Bengal on 14th morning. Details are given in the Article, 'Cyclonic storms & depression over the north Indian ocean-2025'.
4	Depression	17 (0530)-19 (1730)	Southeast Uttar Pradesh	Westwards	Central parts of northwest Rajasthan	Well marked low pressure area over southeast Uttar Pradesh and adjoining southwest Bihar on 16th evening & intensified into dep. Details are given in the Article, 'Cyclonic storms & depression over the north Indian ocean-2025'.
5	Depression	25(0530)-26(1730)	Northwest Bay of Bengal and adjoining areas of coastal West Bengal and Bangladesh	Westwards	East Madhya Pradesh and adjoining north Chhattisgarh	Under its influence of cyclonic circulation over northeast Bay of Bengal, a low-pressure area formed over the north Bay of Bengal on 24th morning. It then lay as a well-marked low pressure area over the same region on 24th evening and concentrated into a Depression over northwest Bay of Bengal and adjoining areas of coastal West Bengal and Bangladesh on 25th morning.Details are given in the Article, 'Cyclonic storms & depression over the north Indian ocean- 2025'.
			II. Western Disturbances /Eastward moving Systems			
			(a) Upper air cyclonic circulation			
1	Between 3.1 & 5.8 km above m.s.l.	23-27	Jammu & Kashmir and adjoining Himachal Pradesh	Northeast	Jammu & Kashmir and neighbourhood	With a trough aloft ran roughly along Long.68°E to the north of Lat.32°N on 27th and moved away northeastwards on 28th.
			(b) As Trough			
1	At 5.8 km above m.s.l.	11-12	Roughly along Long.70°E to the north of Lat.32°N	East-northeast	Roughly along Long.75°E to the north of Lat.30°N	Moved away east-northeastwards on 13th.

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.	13-17	Roughly along Long.62°E to the north of Lat.30°N	East-Northeast	Roughly along Long.70°E to the north of Lat.30°N	Moved away northeastwards on 18th.
3	At 5.8 km above m.s.l.	18-19	Roughly along Long.62°E to the north of Lat.30°N	East-Northeast	Roughly along Long.70°E to the north of Lat.32°N	Moved away northeastwards on 20th.
4	At 5.8 km above m.s.l.	28-29	Ran roughly along Long.65°E to the north of Lat.30°N	Eastwards	Ran roughly along Long.70°E to the north of Lat.31°N	It lay as a cyclonic circulation over Punjab & adjoining Pakistan between 3.1 & 5.8 km above m.s.l. on 30th. It lay as a trough in middle & upper tropospheric levels with its axis at 5.8 km above m.s.l. ran roughly along Long.70°E to the north of Lat.32°N on 31st July. It ran roughly along Long.72°E to the north of Lat.32°N on 1st & 2nd August. It ran roughly along Long.74°E to the north of Lat.32°N on 3rd. It lay as a cyclonic circulation over Himachal Pradesh and adjoining Jammu Division at 5.8 km above m.s.l. on 4th which moved away northeastwards on 5th.
			III. Other upper air cyclonic circulations			
1	At 0.9 km above m.s.l.	1-6	Central Assam	Eastwards	Nagaland & adjoining Myanmar & extended upto 1.5 km above m.s.l.	Became less marked on 7th.
2	Between 1.5 km & 5.8 km above m.s.l.	3-5	North Odisha & adjoining Gangetic West Bengal tilting southwestward with height	Northwards	Northern parts of Gangetic West Bengal & extended upto 7.6 km above m.s.l. tilting southwest wards with height	Under its influence, a low pressure area formed over the Gangetic West Bengal & neighbourhood on 6th.
3	Upto 1.5 km above m.s.l.	3-5	northeast Madhya Pradesh & neighbourhood and extended	Stationary	In situ	Became less marked on 6th.
4	At 0.9 km above m.s.l.	3-4 (Mor)	Central parts of west Rajasthan & neighbourhood	Northwards	Northwest Rajasthan & neighbourhood	Became less marked on 4th.
5	At 1.5 km above m.s.l.	6-7	Himachal Pradesh & adjoining Punjab	Eastwards	North Haryana & adjoining Himachal Pradesh	Became less marked on 8th.
6	At 3.1 km above m.s.l.	8	South Gujarat & neighbourhood	Stationary	In situ	Became less marked on 9th.
7	At 1.5 km above m.s.l.	9-12	North Haryana & neighbourhood	Oscillatory	Haryana & neighbourhood between 1.5 & 5.8 km above m.s.l. tilting southwards with height	Became less marked on 13th.
8	At 0.9 km above m.s.l.	9	Northwest Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 10th.
9	At 0.9 km above m.s.l.	10-12	Northeast Assam	Stationary	In situ	Became less marked on 13th.
10	At 3.1 km above m.s.l.	10	Saurashtra & neighbourhood	Stationary	In situ	Became less marked on 11th.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
11	Between 5.8 & 7.6 km m.s.l.	12(Eve)-13	Northwest Bay of Bengal, adjoining West Bengal & north Odisha coasts	Westwards	North Bay of Bengal & extended upto 5.8 km above m.s.l.	Under its influence, a low pressure area formed over north Bay of Bengal & adjoining coastal areas of Bangladesh, West Bengal & north Odisha on 13th evening. It then lay as a well marked low pressure area over southwest Bangladesh and adjoining Gangetic West Bengal & intensified into depression over southeast Gangetic West Bengal and adjoining Bangladesh at 1130 hrs. IST on 14th.
12	At 3.1 km above m.s.l.	17-18	North interior Karnataka & neighbourhood	Northwards	Madhya Maharashtra & neighbourhood	Became less marked on 19th.
13	At 0.9 km above m.s.l.	18	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 19th.
14	Upto 5.8 km above m.s.l.	18	South coastal Andhra Pradesh & neighbourhood tilting southwestwards with height	Stationary	In situ	Became less marked on 19th.
15	At 0.9 km above m.s.l.	20	Northeast Bangladesh & neighbourhood	Stationary	In situ	Became less marked on 21st.
16	At 3.1 km above m.s.l.	20-23	Westcentral & adjoining northwest Bay of Bengal off south Odisha-north coastal Andhra Pradesh & Yanam	Eastwards	Westcentral & adjoining northwest Bay of Bengal between 3.1 & 5.8 km above m.s.l.	Merged with the low pressure area over north Bay of Bengal on 24th July.
17	Upto 1.5 km above m.s.l.	21	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 22nd.
18	Upto 1.5 km above m.s.l.	22	South Chhattisgarh & neighbourhood	Stationary	In situ	Became less marked on 23rd.
19	Upto 1.5 km above m.s.l.	22	Northeast Jharkhand & neighbourhood	Stationary	In situ	Became less marked on 23rd.
20	Upto 1.5 km above m.s.l.	23	Northeast Assam & neighbourhood	Westwards	Northeast Bangladesh & neighbourhood at 0.9 km above m.s.l.	Became less marked on 25th.
21	At 3.1 km above m.s.l.	23-24	Southwest Rajasthan	Stationary	In situ	Became less marked on 25th.
22	At 1.5 km above m.s.l.	24	East Uttar Pradesh	Stationary	In situ	Became less marked on 24th.
23	At 1.5 km above m.s.l.	24(Eve)	Odisha	Stationary	In situ	Became less marked on 25th.
24	Between 4.5 & 5.8 km above m.s.l.	25(Mor)-25 (0830)	Interior Odisha & adjoining Chhattisgarh	Stationary	In situ	Became less marked on 26th.
25	Upto 1.5 km above m.s.l.	25-29	Haryana & neighbourhood	Westwards	South Punjab & adjoining Pakistan	Became less marked on 30th.
26	At 3.1 km above m.s.l.	26	South Gujarat & neighbourhood	Stationary	In situ	Became less marked on 27th.
27	Between 3.1 & 5.8 km above m.s.l.	26-27(Mor)	Southwest Madhya Pradesh & neighbourhood	Southwards	Northern parts of interior Maharashtra	Merged with the cyclonic circulation associated with the well marked low pressure area over northwest Madhya Pradesh and neighbourhood on 27th.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
28	At 1.5 km above m.s.l.	26-27	Northeast Assam & neighbourhood	Stationary	In situ	Merged with the trough ran from north Bihar to Manipur on 28th.
29	Upto 5.8 km above m.s.l.	28 Jul-3 Aug.	North Bangladesh & neighbourhood and extended	Northerly & then Northwest	Northwest Bihar & adjoining northeast Uttar Pradesh extended upto 4.5 km above m.s.l. tilting southwestwards with height	Became less marked on 4th.
30	At 1.5 km above m.s.l.	29	Northwest Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 30th.
31	At 1.5 km above m.s.l.	30	Southwest Rajasthan & neighbourhood	Stationary	In situ	Became less marked on 31st July.
32	Upto 1.5 km above m.s.l.	31 Jul- 3 Aug.	Northeast Rajasthan & neighbourhood	Northwards	Punjab & neighbourhood extended upto 4.5 km above m.s.l.	Became less marked on 4th Aug.
			IV. Other Troughs			
1	Between 1.5 & 3.1 km above m.s.l.	1-9	Ran from northwest Uttar Pradesh to cyclonic circulation associated with the low pressure area over Jharkhand and neighbourhood across southeast Uttar Pradesh	Oscillatory	Ran from northeast Arabian Sea to the cyclonic circulation over north Chhattisgarh & neighbourhood across south Gujarat Region, north Madhya Maharashtra, south Madhya Pradesh at 5.8 km above m.s.l.	Became less marked on 12th.
2	At m.s.l.	3-7	Ran along Maharashtra-Karnataka coasts	Oscillatory	Ran off south Gujarat to north Kerala coasts	Became less marked on 8th.
3	At 3.1 km above m.s.l.	9-10	Ran from west Assam to Telangana across the upper air cyclonic circulation associated with low pressure area over Gangetic West Bengal and adjoining Jharkhand, interior Odisha, south Chhattisgarh	Oscillatory	West Assam to Vidarbha across Gangetic West Bengal, the cyclonic circulation associated with the low pressure area over south Jharkhand, north Chhattisgarh	Became less marked on 11th.
4	Between 0.9 & 1.5 km above m.s.l.	10-12	Ran from southwest Uttar Pradesh to the cyclonic circulation associated with the low pressure area over south Jharkhand & neighbourhood across north Madhya Pradesh & north Chhattisgarh	Oscillatory	Ran from north Haryana to northwest Bay of Bengal across south Uttar Pradesh, the cyclonic circulation over northeast Madhya Pradesh & neighbourhood, Jharkhand, Gangetic West Bengal at 0.9 km above m.s.l.	Merged with the monsoon trough on 13th.
5	At 5.8 km above m.s.l.	17-22	Ran roughly along Lat.10°N	Oscillatory	Ran from north interior Karnataka to central parts of coastal Andhra Pradesh roughly along Lat.15°N	Became less marked on 23rd.
6	At 0.9 km above m.s.l.	19-21(Mor)	Ran from central parts of north Bihar to Odisha across Jharkhand	Oscillatory	Ran from Gangetic West Bengal to south interior Odisha across Jharkhand	Became less marked on 21st.
7	At 1.5 km above m.s.l.	22	Ran roughly along Long.94°E to the north of Lat.24°N	Stationary	In situ	Became less marked on 23rd.

Sr. No	System	Duration	Place of initial location	Direction of Movement	Place of final location	Remarks
8	At 5.8 km above m.s.l.	23-25	Ran from northeast Arabian sea to the cyclonic circulation over westcentral and adjoining northwest Bay of Bengal across south Gujarat, north Madhya Maharashtra, Vidarbha, Telangana and coastal Andhra Pradesh	Oscillatory	Ran from northeast Arabian sea to the cyclonic circulation over north Chhattisgarh & neighbourhood across Maharashtra between 4.5 & 5.8 km above m.s.l.	Became less marked on 26th.
9	At m.s.l.	24-27	Ran along Maharashtra-Kerala coasts	Oscillatory	Ran along Gujarat-north Kerala coasts	Became less marked on 28th.
10	At 3.1 km above m.s.l.	25	Ran from the upper air cyclonic circulation over Haryana and neighbourhood to the cyclonic circulation associated with the Depression over coastal West Bengal and adjoining areas of northwest Bay of Bengal & Bangladesh across Uttar Pradesh, northeast Madhya Pradesh, north Chhattisgarh, south Jharkhand and north Odisha	Stationary	In situ	Became less marked on 26th.
11	Between 0.9 to 5.8 km above m.s.l.	27-30(Mor)	Ran from the cyclonic circulation associated with the well-marked low-pressure area over northwest Madhya Pradesh and neighbourhood to northeast Bangladesh across northeast Madhya Pradesh, Jharkhand and north Gangetic West Bengal	Oscillatory	Ran from the upper air cyclonic circulation over northwest Madhya Pradesh & neighbourhood to the cyclonic circulation over Gangetic West Bengal & adjoining Bangladesh across northeast Madhya Pradesh, north Chhattisgarh, Jharkhand at 3.1 km above m.s.l.	Became less marked on 30th.
12	Between 0.9 & 3.1 km above m.s.l.	28	Ran from north Bihar to Manipur across the cyclonic circulation over north Bangladesh & neighbourhood and south Assam tilting southwestwards with height	Stationary	In situ	Became less marked on 29th.
13	At 0.9 km above m.s.l.	30-31 (Mor)	Ran from northwest Madhya Pradesh to northeast Bay of Bengal across Jharkhand, Gangetic West Bengal, Bangladesh	Oscillatory	Ran from Haryana to Bangladesh across south Uttar Pradesh, Jharkhand, Gangetic West Bengal	Became less marked on 31st.

TABLE 6

Details of the weather systems during August 2025

Sr. No (1)	System (2)	Duration (3)	Place of initial location (4)	Direction of Movement (5)	Place of final location (6)	Remarks (7)
I.	**Cyclone/ Depression/Deep Depression/Low Pressure area/Well Marked Low**					
1	Low Pressure Area	13-17	Westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts	Westwards	Vidarbha & neighbourhood	Initially it lay as a cyclonic circulation over central parts of Bay of Bengal between 3.1 & 5.8 km above m.s.l. on 12th. Associated cyclonic circulation extended upto 7.6 km above m.s.l. tilting southwards with height. Became less marked on 18th. However, the associated upper air cyclonic circulation persisted over the same region and extended upto 1.5 km above m.s.l. It further merged with the monsoon trough on 18th.
2	Depression	18(1730)-19(0830)	Northwest & adjoining westcentral Bay of Bengal and north Andhra Pradesh-south Odisha coasts	Westwards	South interior Odisha	Initially, it lay as an upper air cyclonic circulation over west central and adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts on 17th morning. Under its influence, a low pressure area formed over the same region on 17th. It then lay as a well marked low pressure area over west central and adjoining northwest Bay of Bengal & north Andhra Pradesh-south Odisha coasts on 18th. Details are given in the Article, 'Cyclonic storms & depression over the north Indian ocean- 2025'.
3	Low Pressure Area	22(1730)-	Gangetic West Bengal & neighbourhood	Westwards	Central parts of south Uttar Pradesh & adjoining north Madhya Pradesh	Became less marked on 25th. However, the associated upper air cyclonic circulation merged with the upper air cyclonic circulation over south Haryana and adjoining northeast Rajasthan.
4	Well Marked Low Pressure Area	27-27(Eve)	Northwest Bay of Bengal off Odisha coast	Westwards	South coastal Odisha & neighbourhood	Initially, it lay as an upper air cyclonic circulation lay over northwest Bay of Bengal off Odisha-West Bengal coasts on 25th. Under its influence, a low pressure area formed over northwest Bay of Bengal off Odisha coast on 26th. weakened into a low pressure area over south Odisha & adjoining Chhattisgarh on 28th morning & became less marked on 29th. However, associated cyclonic circulation lay over Vidarbha & neighbourhood on 29th and merged with the trough ran from the cyclonic circulation over northwest Rajasthan & neighbourhood to Jharkhand on 1st September.
II. Western Disturbances /Eastward moving Systems						
(a)	**As a cyclonic circulation**					

Table 6 Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Between 3.1 & 5.8 km above m.s.l.	10-12	North Pakistan & neighbourhood	Westwards	North Pakistan and adjoining Jammu & Kashmir	Moved away northeastwards on 13th.
(b) As a trough						
1	At 5.8 km above m.s.l.	5	Ran roughly along Long.72°E to north of Lat.30°N	Stationary	In situ	It then lay as a cyclonic circulation over Punjab & neighbourhood at 5.8 km with a trough aloft in middle tropospheric level with its axis at 7.6 km above m.s.l. ran roughly along Long.73°E to north of Lat.32°N on 6th-8th & then lay over Kashmir & neighbourhood. However, the trough aloft moved away eastwards on 9th & cyclonic circulation became less marked on 10th.
2	At 3.1 km above m.s.l.	17(Eve)-19	Ran roughly along Long.65°E to the north of Lat.30°N with its axis	Eastwards	Ran roughly along Long. 71°E to the north of Lat.30°N	It then lay as a cyclonic circulation over Jammu Division & neighbourhood at 3.1 km above m.s.l. on 20th. It then lay as a trough in the lower tropospheric w'lies with its axis at 3.1 km above m.s.l. ran roughly along Long.78°E to the north of Lat.32°N on 21st and moved away east-northeastwards on 22nd.
3	Between 3.1 & 9.6 km above m.s.l. with its axis at 3.1 km above m.s.l.	24-26	Ran roughly along Long.70°E to north of Lat.28°N	Stationary	In situ	Lay as a cyclonic circulation over north Pakistan between 3.1 & 5.8 km above m.s.l. on 27th. It then lay over north Pakistan & adjoining Punjab from 28-31. It then lay as a trough in middle level w'lies with its axis at 5.8 km above m.s.l. roughly along Long.72°E to the north of Lat.32°N on 1st Sept.& along Long.72°E to the north of Lat.28°N on 2nd. It lay as a cyclonic circulation over north Pakistan and adjoining Punjab with trough on 3rd. It then lay as a trough in middle & upper tropospheric westerlies with its axis at 5.8 km above m.s.l. ran roughly along Long.74°E to the north of Lat.28°N on 4th and moved away in east northeastwards on 5th.
III. Other upper air cyclonic circulations						
1	At 5.8 km above m.s.l.	2-9	Gulf of Mannar & adjoining south Tamil Nadu	Northwards	South coastal Andhra Pradesh	Became less marked on 10th.
2	At 5.8 km above m.s.l.	3-4	Northeast Arabian sea & neighbourhood	Eastwards	Saurashtra at 4.5 km above m.s.l.	Became less marked on 5th.
3	At 3.1 km above m.s.l.	3-4	North Gujarat & adjoining south Rajasthan	Northwards	Central parts of south Rajasthan	Merged with the trough ran from northwest Uttar Pradesh to northeast Arabian sea on 5th.
4	At 3.1 km above m.s.l.	4-7	Northeast Assam	Northwards	northeast Assam & adjoining Arunachal Pradesh	Became less marked on 8th.
5	Upto 1.5 km above m.s.l.	4-6	Rayalaseema & neighbourhood	Stationary	In situ	Became less marked on 7th.

Table 6 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
6	At 3.1 km above m.s.l.	4-6	South Kerala & neighbourhood	Northwards	South interior Karnataka & neighbourhood	Became less marked on 7th.
7	At 1.5 km above m.s.l.	4	Himachal Pradesh & neighbourhood	Stationary	In situ	Became less marked on 5th.
8	Between 4.5 & 7.6 km above m.s.l.	5-7	North Bangladesh & neighbourhood and extended	Southwards	Central parts of Bangladesh	Became less marked on 8th.
9	At 1.5 km above m.s.l.	6-7	Himachal Pradesh & adjoining Uttarakhand	Stationary	In situ	Became less marked on 8th.
10	At 1.5 km above m.s.l.	6	South Madhya Maharashtra & neighbourhood	Stationary	In situ	Became less marked on 7th.
11	Between 3.1 & 5.8 km above m.s.l.	7 (Eve)-8	Gangetic West Bengal & adjoining north Odisha	Eastwards	Bangladesh-West Bengal coasts and adjoining areas of northwest Bay of Bengal	Became less marked on 9th.
12	At 5.8 km above m.s.l.	8-12	North interior Karnataka and neighbourhood	Stationary	In situ	Became less marked on 13th.
13	Upto 3.1 km above m.s.l.	9-13	West Uttar Pradesh & neighbourhood	Northwards	Northwest Uttar Pradesh & adjoining Haryana	Became less marked on 14th.
14	Upto 1.5 km above m.s.l.	9-15	West Assam & neighbourhood	Oscillatory	Northeast Assam	Became less marked on 16th.
15	At 3.1 km above m.s.l.	9	South Bihar & adjoining north Jharkhand	Stationary	In situ	Became less marked on 10th.
16	At 3.1 km above m.s.l.	10-21	Northeast Arabian sea and adjoining Gujarat	Oscillatory	Kutch & neighbourhood	Became less marked on 22nd.
17	Between 3.1 & 5.8 km above m.s.l.	11	North coastal Andhra Pradesh & adjoining Telangana	Stationary	In situ	Became less marked on 12th.
18	Upto 1.5 km above m.s.l.	13	East Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 14th.
19	Upto 1.5 km above m.s.l.	14	Punjab & neighbourhood	Stationary	In situ	Became less marked on 15th.
20	At 0.9 km above m.s.l.	14	West Uttar Pradesh	Stationary	In situ	Became less marked on 15th.
21	At 3.1 km above m.s.l.	15-16	Jammu-Kashmir & neighbourhood	Stationary	In situ	Became less marked on 17th.
22	At 1.5 km above m.s.l.	17	Central Pakistan & adjoining Punjab	Stationary	In situ	Became less marked on 18th.
23	Upto 1.5 km above m.s.l.	20-21	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 22nd.
24	At 5.8 km above m.s.l.	21(Mor)-22	Northwest Bay of Bengal & adjoining areas of north Odisha and Gangetic West Bengal	Northwards	Gangetic West Bengal and adjoining Bangladesh	Under its influence, a low pressure area formed over Gangetic West Bengal & neighbourhood on 22nd evening.
25	At 0.9 km above m.s.l.	22-24	West Rajasthan & neighbourhood	Northwards	Punjab & neighbourhood	Became less marked on 25th.
26	At 3.1 km above m.s.l.	23	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 24th.
27	Upto 1.5 km above m.s.l.	28-30	Northeast Assam & neighbourhood and extended	Stationary	In situ	Became less marked on 31st.

Table 6 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
28	At 5.8 km above m.s.l.	30	North Konkan coast & neighbourhood	Stationary	In situ	Became less marked on 31st.
29	Upto 1.5 km above m.s.l	31 Aug. (Mor)-3 Sept.	Northwest Rajasthan & neighbourhood	Northwards	South Haryana & neighbourhood	Became less marked on 4th Sept.
30	Between 1.5 & 5.8 km above m.s.l.	31 Aug.	Northwest Bay of Bengal off north Odisha coasts & neighbourhood	Stationary	In situ	Merged with the trough which ran from the cyclonic circulation over northeast Bay of Bengal & adjoining Myanmar coast to north coastal Odisha on 1st September.
			IV. North-South Trough/ Other trough /Shear zone			
1	At 5.8 km above m.s.l.	3-7	Ran roughly along Lat.7°N	Oscillatory	Ran from coastal Karnataka to central parts of south Bay of Bengal across south interior Karnataka, south Rayalaseema, north Tamil Nadu and the cyclonic circulation over southwest Bay off north Tamil Nadu coasts between 1.5 & 3.1 km above m.s.l.	Became less marked on 8th.
2	At 0.9 km above m.s.l.	4	Ran from northwest Uttar Pradesh to northeast Bihar across east Uttar Pradesh	Stationary	In situ	Became less marked on 5th.
3	At 3.1 km above m.s.l.	5-6	Ran from northwest Uttar Pradesh to northeast Arabian sea across south Haryana, east Rajasthan & Gujarat	Oscillatory	Ran from central parts of north Uttar Pradesh to northern parts of Kutch across east Rajasthan & north Gujarat between 3.1 & 4.5 km above m.s.l.	Became less marked on 7th.
4	Between 3.1 & 4.5 km above m.s.l.	6	Ran from northwest Bihar to southeast Bangladesh across northern parts of Gangetic West Bengal	Stationary	In situ	Became less marked on 7th.
5	Upto 1.5 km above m.s.l.	8	Ran from south coastal Andhra Pradesh to north Sri Lanka across coastal Tamil Nadu	Stationary	In situ	Became less marked on 9th.
6	Upto 3.1 km above m.s.l.	8-9	Ran from northeast Uttar Pradesh to south Bangladesh across Bihar, Jharkhand, northern parts of Gangetic West Bengal	Oscillatory	Ran from upper air cyclonic circulation over west Uttar Pradesh to Jharkhand across central parts of east Uttar Pradesh at 1.5 km above m.s.l.	Became less marked on 10th.
7	At 3.1 km above m.s.l.	9	Ran from Gujarat to upper air cyclonic circulation over west Uttar Pradesh across west Madhya Pradesh	Stationar	In situ	Became less marked on 10th

Table 6 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
8	Upto 1.5 km above m.s.l.	12-13	Ran from south Bihar to north Odisha	Oscillatory	Ran from upper air cyclonic circulation over east Uttar Pradesh & neighbourhood to upper air cyclonic circulation associated with the low pressure area over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts across Chhattisgarh	Became less marked on 14th.
9	At 5.8 km above m.s.l.	12-18(Mor)	Ran from the cyclonic circulation over central parts of Bay of Bengal to the cyclonic circulation over north interior Karnataka across west central Bay of Bengal	Oscillatory	Ran from the upper air cyclonic circulation associated with well marked low pressure area over westcentral and adjoining northwest Bay of Bengal & north Andhra Pradesh-south Odisha coasts to the upper air cyclonic circulation over northeast Arabian Sea & adjoining Gujarat across the upper air cyclonic circulation over Vidarbha, north Marathwada	merged with the shear zone on 18th.
10	Between 3.1 & 5.8 km above m.s.l.	18-21	Ran roughly along Lat.19°N over the Indian region tilting southwestwards with height	Northwards	Ran roughly along Lat.24°N over the Indian region	It lay as an east-west trough from the upper air cyclonic circulation over Gangetic West Bengal and adjoining Bangladesh to east Rajasthan on 22nd morning which became less marked.
11	At m.s.l.	18-21	Ran form south Konkan to north Kerala	Oscillatory	Ran along Gujarat-Maharashtra coasts	Became less marked on 22nd.
12	Between 1.5 & 3.1 km above m.s.l.	25	Ran from central parts of east Rajasthan to the centre of cyclonic circulation over northwest Bay of Bengal off Odisha-West Bengal coasts	Stationary	In situ	Became less marked on 26th.
13	Upto 1.5 km above m.s.l.	27	Ran from central Madhya Pradesh to the upper air cyclonic circulation over south Punjab across east Rajasthan, south Haryana	Stationary	In situ	Became less marked on 28th.
14	Between 4.5 & 5.8 km above m.s.l.	28	Ran roughly along Lat.17°N over the Indian region	Stationary	In situ	Became less marked on 29th.
15	Between 5.8 & 7.6 km above m.s.l.	29	Ran from south Chhattisgarh to north Kerala across cyclonic circulation over Vidarbha & neighbourhood and interior Karnataka	Stationary	In situ	Became less marked on 30th.

TABLE 7

Details of the weather systems during September 2025

Sr. No (1)	System (2)	Duration (3)	Place of initial location (4)	Direction of Movement (5)	Place of final location (6)	Remarks (7)
I.	**Deep Depression/Depression/Low pressure area**					
1	Deep Depression	7(1130)-8(1730)	North Gujarat & adjoining southwest Rajasthan	Westwards	Southeast Pakistan & adjoining Rajasthan	Well marked low pressure area over northwest Madhya Pradesh & adjoining east Rajasthan on 5th; lay over central parts of south Rajasthan on 6th; it lay over southwest Rajasthan & neighbourhood on 6th evening & concentrated into dep. on 2330 IST on 6th & then DD. Details are given in the article on, 'Cyclones & depression over north Indian ocean during 2025'.
2	Low Pressure Area	12-14	Westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coast	Westwards	North Telangana & adjoining Vidarbha	It became less marked on 15th morning. However, the associated cyclonic circulation persisted over east Vidarbha & neighbourhood and extended upto 3.1 km above m.s.l. tilting southwestwards with height on 15th & 16th; lay over Marathwada on 17th & 18th and south Marathwada & neighbourhood on 19th which became less marked on 20th.
3	Low Pressure Area	22(Mor)-24	Northeast Bay of Bengal and neighborhood	Westwards	North Odisha & adjoining northwest Bay of Bengal and Gangetic West Bengal	It became less marked on 24th evening. However, the associated cyclonic circulation persisted over the same region and extended upto 7.6 km above m.s.l. on 25th. It then lay over northwest & adjoining westcentral Bay of Bengal, south Odisha-north Andhra Pradesh coasts and extended upto 5.8 km above m.s.l. on 25th which merged with cyclonic circulation associated with the well marked low pressure area over northwest and adjoining central Bay of Bengal on 26th.
4	Depression	26 (1730)-28 (0530)	Northwest & adjoining westcentral Bay of Bengal off south Odisha-north Andhra Pradesh coasts	Westwards	West Vidarbha and neighbourhood	Under the influence of cycir over eastcentral and adjoining northeast Bay of Bengal, low pressure area formed over central parts of north & adjoining central Bay of Bengal on 25th evening. It lay as a well marked low pressure area over northwest & adjoining central Bay of Bengal on 26th. Details are given in the article on, 'Cyclones & depression over north Indian ocean during 2025'.
II. Western Disturbances /Eastward moving Systems						
(a) As a trough						
1	At 5.8 km above m.s.l.	5-7	Roughly along Long.67°E to the north of Lat.28°N	Eastwards	Roughly along Long.69°E to the north of Lat.28°N	Moved away east-northeastwards on 8th.
2	At 5.8 km above m.s.l.	19-21	Roughly along Long.70°E to the north of Lat.31°N	Eastwards	Roughly along Long.81°E to the north of Lat.29°N	Moved away eastwards on 22nd.

Table 7 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(b)	**As a Cyclonic circulation**					
1	At 5.8 km above m.s.l.	11-12	Himachal Pradesh & neighbourhood	Stationary	In situ	Became less marked on 13th.
III. Other upper air cyclonic circulations						
1	Between 5.8 & 7.6 km above m.s.l.	3-4	Vidarbha & neighbourhood	Northwest	Southwest Madhya Pradesh & neighbourhood and extended upto 5.8 km above m.s.l.	Merged with the cyclonic circulation associated with the low pressure area over central parts of west Madhya Pradesh on 5th.
2	Upto 1.5 km above m.s.l.	4-5	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 6th.
3	Between 5.8 & 7.6 km above m.s.l.	5	Northeast Arabian Sea & adjoining Gujarat coast	Stationary	In situ	Merged with the cyclonic circulation associated with well marked low pressure area over southeast Rajasthan & neighbourhood on 6th.
4	Between 3.1 & 5.8 km above m.s.l.	6-12(Mor)	Northwest Bay of Bengal & adjoining west central Bay of Bengal off south Odisha & north Coastal Andhra Pradesh	Southwards	Westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coast	Under its influence, a low pressure area formed over Westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh-south Odisha coast on 12th.
5	At 1.5 km above m.s.l.	7	Southeast Uttar Pradesh and neighbourhood	Stationary	In situ	Became less marked on 8th.
6	Between 3.1 & 5.8 km above m.s.l.	7	South Assam	Stationary	In situ	Became less marked on 8th.
7	At 0.9 km above m.s.l.	8	South Punjab and neighbourhood	Stationary	In situ	Became less marked on 9th.
8	At 3.1 km above m.s.l.	9-11	East Bihar & neighbourhood	Northwards	Sikkim & neighbourhood	Became less marked on 12th.
9	At 1.5 km above m.s.l.	9	Gulf of Mannar & neighbourhood	Stationary	In situ	Became less marked on 10th.
10	At 0.9 km above m.s.l.	9	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 10th.
11	At 0.9 km above m.s.l.	11	Central Assam	Stationary	In situ	Became less marked on 12h.
12	At 0.9 km above m.s.l.	12-14(Mor)	Northeast Jharkhand & neighbourhood	Oscillatory	Northeast Bihar & adjoining Sikkim at 1.5 km above m.s.l.	Became less marked on 14th.
13	At 1.5 km above m.s.l.	12	Tripura & neighbourhood	Stationary	In situ	Became less marked on 13th.
14	At 0.9 km above m.s.l.	12	North Haryana & neighbourhood	Stationary	In situ	Became less marked on 13th.
15	At 3.1 km above m.s.l.	13-15	Central Assam	Stationary	In situ	Became less marked on 16th.
16	Between 3.1 & 4.5 km above m.s.l.	13	Northeast Rajasthan & neighbourhood	Stationary	In situ	Became less marked on 14th.
17	Between 3.1 & 5.8 km above m.s.l.	14-15	Northeast Bangladesh	Eastwards	Meghalaya & neighbourhood	Became less marked on 16th.
18	Between 3.1 & 5.8 km above m.s.l.	14-16	Southeast Bay of Bengal	Stationary	In situ	Became less marked on 17th.
19	Between 3.1 & 5.8 km above m.s.l.	15-17 (Mor)	east Bihar & neighbourhood	Southwards	north Jharkhand at 3.1 km above m.s.l.	Became less marked on 17th.

Table 7 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
20	At 0.9 km above m.s.l.	16-18	Northeast Assam and neighbourhood	Oscillatory	Northeast Assam & neighbourhood	Became less marked on 19th.
21	At 0.9 km above m.s.l.	16-18	Northern parts of central Uttar Pradesh & neighbourhood	Eastwards	East Bihar & neighbourhood	Became less marked on 19th.
22	At 5.8 km above m.s.l.	18	South interior Karnataka	Stationary	In situ	Became less marked on 19th.
23	Upto 3.1 km above m.s.l.	19-21	North Andaman Sea & adjoining Myanmar coast	Northwards	Northeast Bay of Bengal & adjoining Myanmar-south Bangladesh coasts	Under its influence, a low pressure area formed over northeast Bay of Bengal and neighborhood on 22nd morning.
24	At 1.5 km above m.s.l.	19-21	Northwest Uttar Pradesh & neighbourhood	Eastwards	Northeast Bihar and adjoining Sikkim	Became less marked on 22nd.
25	At 1.5 km above m.s.l.	20-21	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 22nd.
26	At 1.5 km above m.s.l.	20	Northwest Uttar Pradesh & neighbourhood	Stationary	In situ	Became less marked on 21st.
27	Upto 1.5 km above m.s.l.	22	Northeast Uttar Pradesh & neighbourhood	Eastwards	Central parts of north Uttar Pradesh	Became less marked on 24th.
28	At 5.8 km above m.s.l.	22	Central parts of coastal Andhra Pradesh & neighbourhood	Stationary	In situ	Merged with the trough ran from the cyclonic circulation associated with the low pressure area over coastal areas of Gangetic West Bengal and adjoining north Odisha & northwest Bay of Bengal to south Maharashtra coast on 23rd.
29	At 5.8 km above m.s.l.	22	South Tamil Nadu & neighbourhood	Stationary	In situ	Became less marked on 23rd.
30	At 0.9 km above m.s.l.	23-24	Northeast Assam & neighbourhood	Stationary	In situ	Became less marked on 25th.
31	At 3.1 km above m.s.l.	23-24	Central parts of Madhya Maharashtra & neighbourhood	Stationary	In situ	Became less marked on 25th.
32	Upto mid tropospheric levels	24-25	coastal areas of central Myanmar and adjoining eastcentral Bay of Bengal	Westwards	Eastcentral and adjoining northeast Bay of Bengal	Under its influence, a low pressure area formed over central parts of north & adjoining central Bay of Bengal on 25th evening.
33	At 3.1 km above m.s.l.	25	Kutch & neighbourhood	Stationary	In situ	Became less marked on 26th.
34	Between 1.5 & 3.1 km above m.s.l.	28-29	Punjab and neighbourhood	Eastwards	Haryana and neighbourhood	Became less marked on 30th.
35	Between 1.5 & 5.8 km above m.s.l.	29-30	North coastal Andhra Pradesh and neighbourhood	Eastwards	Westcentral Bay of Bengal off north Andhra Pradesh coast	Merged with the cyclonic circulation associated with low pressure area over westcentral Bay of Bengal on 30th evening.
36	Upto 5.8 km above m.s.l.	30	Eastcentral Bay of Bengal & neighbourhood	Stationary	In situ	Under its influence, a low pressure area formed over westcentral Bay of Bengal on 30th evening.
			IV. North-South Trough/Other trough/trough in easterlies			
1	Upto 3.1 km above m.s.l.	1-2	Ran from the cyclonic circulation over northwest Rajasthan & neighbourhood to Jharkhand across north Madhya Pradesh, south Uttar Pradesh	Oscillatory	Ran from north Kashmir to northwest Madhya Pradesh across Punjab, Haryana, northeast Rajasthan between 3.1 & 5.8 km above m.s.l.	Became less marked on 3rd.
2	Upto 1.5 km above m.s.l.	1	Ran from the cyclonic circulation over northeast Bay of Bengal & adjoining Myanmar coast to north coastal Odisha	Stationary	In situ	Merged with the low pressure area over Northwest Bay of Bengal on 2nd.

Table 7 Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
3	Between 3.1 & 5.8 km above m.s.l.	4-9	Ran from northeast Arabian Sea to northwest Bay of Bengal across Saurashtra, south Gujarat, the upper air cyclonic circulation over southwest Madhya Pradesh & neighbourhood, the cyclonic circulation associated with low pressure area over north Chhattisgarh & adjoining east Madhya Pradesh and Odisha	Oscillatory	Ran from the cyclonic circulation associated Depression over southeast Pakistan to northwest Rajasthan and extended upto 3.1 km above m.s.l.	Became less marked on 10th.
4	Between 3.1 & 7.6 km above m.s.l.	6	Ran from south Punjab to East Central Arabian Sea off Konkan coast across the cyclonic circulation associated with well marked low pressure area over central parts of south Rajasthan, eastern parts of Gujarat Region, north Konkan	Stationary	In situ	Became less marked on 7th.
5	At 0.9 km above m.s.l.	9-10	Ran from south interior Karnataka to Gulf of Mannar across Tamil Nadu	Stationary	In situ	Became less marked on 11th.
6	At 1.5 km above m.s.l.	9-10	Ran roughly along Long. 87°E to the north of Lat.22°N	Stationary	In situ	Became less marked on 11th.
7	At 0.9 km above m.s.l.	11	Ran from Sub-Himalayan West Bengal & Sikkim to westcentral Bay of Bengal across Jharkhand, the cyclonic circulation over south Odisha & adjoining north coastal Andhra Pradesh	Stationary	In situ	Became less marked on 12th.
8	At 0.9 km above m.s.l.	13	Ran from south interior Karnataka to Gulf of Mannar across Tamil Nadu	Stationary	In situ	Became less marked on 14th.
9	Between 3.1 & 5.8 km above m.s.l.	14	Ran from upper air cyclonic circulation associated with low pressure area over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh -south Odisha coast to south Maharashtra across Chhattisgarh & Vidarbha	Stationary	In situ	Became less marked on 15th.
10	At 1.5 km above m.s.l.	14	Ran roughly along at Long.84°E to the north of Lat.23°N	Stationary	In situ	Became less marked on 15th.
11	Between 1.5 & 3.1 km above m.s.l.	16	Ran from east Jharkhand to east Bangladesh	Stationary	In situ	Became less marked on 17th.
12	At 0.9 km above m.s.l.	16-18	Ran from south interior Karnataka to Comorin area across Tamil Nadu	Oscillatory	Ran from south Maharashtra to west central and southwest Bay of Bengal across upper air cyclonic circulation over Marathwada, Telangana and Rayalaseema at 3.1 km above m.s.l.	Became less marked on 19th.

Table 7 continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
13	At 0.9 km above m.s.l.	17-18	Ran from central parts of Madhya Pradesh to westcentral & adjoining southwest Bay of Bengal across east Vidarbha, Telangana & south coastal Andhra Pradesh	Stationary	In situ	Became less marked on 19th.
14	At 3.1 Km above m.s.l.	18-20	Ran from central parts of south Uttar Pradesh to upper air cyclonic circulation over Marathwada	Oscillatory	Ran from the upper air cyclonic circulation over northeast Uttar Pradesh & adjoining Bihar to west Vidarbha across Madhya Pradesh	Became less marked on 21st.
15	At 0.9 km above m.s.l.	19	Ran from northwest Uttar Pradesh to east Bangladesh across Bihar, Sub-Himalayan West Bengal	Stationary	In situ	Became less marked on 20th.
16	At 3.1 km above m.s.l.	19-24	Ran from upper air cyclonic circulation over north Andaman Sea & adjoining Myanmar coast to south Maharashtra coast across central Bay of Bengal, south coastal Andhra Pradesh, Rayalaseema and north interior Karnataka	Oscillatory	Ran from the cyclonic circulation associated with the low pressure area over north Odisha & adjoining northwest Bay of Bengal and Gangetic West Bengal to Telangana across Odisha	Became less marked on 24 evening.
17	Between 4.5 & 5.8 km above m.s.l.	23-24 (Mor)	Ran from an upper air cyclonic circulation associated with the low pressure area over coastal areas of Gangetic West Bengal and adjoining north Odisha & northwest Bay of Bengal to south Maharashtra coast across Odisha, south Chhattisgarh, Telangana, north interior Karnataka	Oscillatory	Ran from the upper air cyclonic circulation associated with the low pressure area over north Odisha & adjoining northwest Bay of Bengal and Gangetic West Bengal to south interior Karnataka across Odisha, south Chhattisgarh, Telangana, north interior Karnataka	Became less marked on 24th.
18	Between 4.5 & 5.8 km above m.s.l.	25-27	Ran from the upper air cyclonic circulation over northwest & adjoining westcentral Bay of Bengal and adjoining south Odisha-north Andhra Pradesh coasts to south Maharashtra coast across Telangana, north interior Karnataka	Oscillatory	Ran from the Depression over south interior Odisha to Goa across Telangana & north Interior Karnataka	Became less marked on 28th.
19	Upto 3.1 km above m.s.l.	28-29	Ran from the well marked low pressure area over west Vidarbha & adjoining north Madhya Maharashtra to westcentral Bay of Bengal across south Chhattisgarh, north coastal Andhra Pradesh and extended	Oscillatory	Ran from the well-marked low pressure area over Gulf of Cambay and neighbourhood to westcentral Bay of Bengal across south Gujarat, Vidarbha, south Chhattisgarh, south Odisha, north Coastal Andhra Pradesh	Became less marked on 30th Sept.
20	At 0.9 km above m.s.l.	30 Sept.	Ran from the cyclonic circulation associated with well marked low pressure area over Gulf of Kutch and neighbourhood to northwest Rajasthan	Stationary	In situ	Became less marked 1st Oct.
21	At 1.5 km above m.s.l.	30 Sept.	Ran from the cyclonic circulation associated with well marked low pressure area over Gulf of Kutch and neighbourhood to southeast Uttar Pradesh across central parts of Madhya Pradesh	Stationary	In situ	Became less marked 1st Oct.

TABLE 8

Representative amounts of Heavy Rainfall (12cm and above) for June, July, August and September 2025

Date	Rainfall amounts
1 Jun	42 - Silchar; 35 - Karimganj; 32 - A P Ghat; 30 - Matijuri; 26 - Lakhipur;24 - B P Ghat; 23 - Amraghat; 20 - Budhjongnagar ARG; 19 -Kailashahar AP and Arundhutinagar; 18 - Haflong and Kailashahar AWS;17 - Jirania ARG; 16 - Mawkyrwat and Khowai AWS; 15 - Raha ARG andKhowai; 14 - Kadamtala ARG and Dm Office ARG; 13 - Lembuchhera; 12- Lakhipur ARG, Cherrapunji, Khliehriat, Sabroom and Pasighat AP.
2 Jun	12 - Zunheboto AWS.
3 Jun	Nil.
4 Jun	18 - Gairkata Tea Estate; 14 - Cooch Behar; 12 - Amfu Pundibari and Sankos Tea Estate.
5 Jun	21 - Mawkyrwat; 18 - Mawsynram; 16 - Cherrapunji (rkm); 15 - Shella; 12 - Cherrapunji.
6 Jun	Nil.
7 Jun	Nil.
8 Jun	17 - Uran.
9 Jun	14 - Lohara and Kottur; 12 - Parasurampura.
10 Jun	Nil.
11 Jun	14 - Sengulam Dam AWS; 13 - Munnar Kseb and Idamalayar Dam AWS; 12 - Thennala AWS.
12 Jun	37 - Karwar; 19 - Kota; 16 - Kerur; 15 - Ankola, Gokarna and Hubballi; 13 - Honavar and Canacona.
13 Jun	30 - Rameshwar ARG; 24 - Karwar and Shirali; 22 - Ponda and Devgad; 16 - Kundapur; 15 - Kota; 14 - Canacona and Sanguem; 12 - Udupi and Honavar.
14 Jun	25 - Rajapur; 15 - Pernem.
15 Jun	25 - Mandangad; 21 - Gurjongjhora Tea Estate, Washabari Tea Estate, Wakwali ARG and Mangalore/P.bur; 19 - Fagu Tea Estate and Savarde-arg; 18 - Baintgoorie T.e. and Soongachi T.e.; 17 - Damdim Tea Estate, Neora, Mangaluru and Mangaon; 15 - Kottigehara, Mhasla, Sanguem, Hosdurg and Kudulu; 14 - Aibheel Tea Estate, Chel, Good Hope Tea Estate, Kumlai T.e., Oodlabari Tea Estate, Bantwal, Shriwardhan, Vadakara, Avalanche and Pawarwadi - ARG; 13 - Zurrantee T.e, Belthangadi, Mangaluru AP, Mudubidre, Bhagamandala, Poladpur, Sudhagad Pali, Lanja, Panathur AWS, Chinnakalar and Pothia; 12 - Ghish, Nagarkata, Dapoli ARG, Alwaye PWD, Ponnani, Kodungallur and Mogulkata Tea Estate.
16 Jun	29 - Avalanche; 28 - Shirali; 27 - Manki; 25 - Siddapura; 23 - Mangaluru AP; 21 - Gaganbawada and Thennala AWS; 20 - Kottigehara and Agumbe; 19 - Castle Rock; 18 - Vadakara, Chinnakalar, Pawarwadi - ARG and Mangalore/P.bur; 17 - Uppinangadi, Kundapur, Gersoppa, Banki, Radhanagari and Upper Bhavani; 16 - Mahabaleshwar, Bayar AWS and Awalegaon - ARG; 15 - Bareilly CWC, Bareilly PBO, Bantwal, Kadra, Tala, Dodamarg, Lonavala ARG, Hosdurg, Kudulu, Muliyar AWS, Vyttiri, Dabhoi and Taliparamba; 14 - Mangaluru, Karkala, Wakwali ARG, Ams Kannur, Kannur, Cheruvanchery AWS, Tellichery, Kannur Icar AWS and Valpoi; 13 - Belthangadi, Kota, Honavar, Kumta, Chiplun, Guhagarh, Mulde ARG, Sawantwadi, Pinarayi AWS, Taluk Office Pandalur and Sankheda; 12 - Nakur, Bhatkawa Tea Estate, Dharmasthala, Mani, Puttur HMS, Bhagamandala, Ranpur, Lanja, Rameshwar ARG, Vaibhavwadi, Chemberi AWS, Irikkur, Ayyankunnu AWS, Kannur Airport AWS, Peringome AWS, Peermade To, Cincona, Sholayar, Worth Estate Cher and Mulde - AWS.
17 Jun	36 - Gadhda; 29 - Palitana; 28 - Botad; 27 - Jesar, Shihor and Umrala; 25 - Savarkundla; 23 - Mahuva (b) ; 21 - Avalanche; 19 - Bhagamandala; 17 - Gersoppa, Lilia, Rajula and Chotila; 16 - Vallabhipur; 15 - PTO Tarakeswar, Amreli, Gariadhar and Vichhiya; 14 - Panathur AWS, Rajula ARG and Agumbe; 13 - Siddapura, Bhiwandi, Radhanagari, Hosdurg, Muliyar AWS, Talaja, Deogarh and Jhandutta; 12 - Sagar Island PTO, Chemberi AWS, Cheruvanchery AWS, Peringome AWS, Babra, Morbi, Taliparamba and Sagar Island.
18 Jun	16 - Arki, Sayla and Narwar; 15 - Barvala; 14 - Kuru, Botad, Bandgaon and N.lak/Lilabari; 13 - Ranchi AP, Joda, Jodia, Muli and Agumbe; 12 - Gobindpur Dvc, Uppinangadi, Tiring, Umrala, Chauldhowaghat, Taliparamba, Mandar and Asansol.
19 Jun	31 - Mawsynram; 30 - Bau Kanke; 29 - Nimdih; 26 - Matheran, Dangs (ahwa) , Kaprada and Jamshedpur; 25 - Jamshedpur AP; 24 - Chandwa and Bandgaon; 22 - Wada and Bariyatu; 21 - Kharidwar, Khalapur, Subir, Dang Kvk AWS and Dharampur; 20 - Ghatsila, Kusmi, Panvel ARG, Lonavala ARG, Waghai, Cherrapunji (rkm) , Mawkyrwat and Herhanj; 19 - Bankura (CWC) , Kansabati Dam, Dhalbhumgarh, Bhurkunda, Jawhar, Pen, Mahabaleshwar, Silvassa and Cherrapunji; 18 - D.p.ghat, Phulberia, Simula, Kuru, Burmu, Tiring, Chandil and Sisai; 17 - Tusuma, Mokheda - Fmo, Uran, Igatpuri, Nanipalson, Garu, Goilkera and Latehar; 16 - Lava, Lalgarh, Potka, Kharsema, Manoharpur, Sudhagad Pali, Surgana, Vansda, Saryu and Mandar; 15 - Shilaichak, Latehar Balumat Kvk AWS, Ranchi AP, Bahalda, Chandua Kuliana, Palghar ARG, Belonia, Gurabandha, Patamda, Gudri and Alibag; 14 - Bankura, Purihansa, Purulia, Chakulia, Torpa, Rania, Ramgarh, Icar Namkum, Colaba , Peth, Trimbakshwar, Boram and Anandpur; 13 - Baharagora, Chakradharpur, Jamsolaghat, Vikramgad, Mahad, Karjat ARG, Mhasla, Roha, Mandangad, Murbad, Harsul - Fmo, Madhbun, Khergam, Imamganj, Pathalgada, Panki and Mawkyrwat ARG; 12 - Shikohabad, Murhu, Khalari, Jamda, Sarasakana, Shriwardhan, Bagafa, Kauwakol, Ormanjhi and Chaibasa.

TABLE 8

Table 8 Continued

20 Jun	21 - Purulia, Harsul - Fmo, Mahabaleshwar and Mandar; 18 - BanoSimdega Kvk AWS and Daman; 17 - Lonavala ARG and Bariyatu; 16 -Ramgarh, Kunkuri and Daman AWS; 15 - Kusmi, Jawhar, Mokheda -Fmo, Poladpur and Madhbun; 14 - Daman Fmo, Vapi and Ramgarh (bdo); 13 - Simula, Simdega, Mandangad, Igatpuri, Silvassa, Hunterganj andGola; 12 - Kakardharighat, Patratu, Samari, Ozharkheda - Fmo, Pardi,Mukto ARG and Mandu.
21 Jun	21 - Jambughoda; 19 - Kathiwada; 17 - Niwai and Bhabhra; 15 -Chaksu; 14 - Ghorawal and Chothkabarwara SR; 13 - Jetpur Pavi andUdaigarh; 12 - Radhanagari, Sikrai, Kota-aero, Uniara/Aligarh, Sihawaland Bundi.
22 Jun	31 - Vadali; 29 - Khedbrahma; 23 - Danta and Dharoi Colony; 21 -Tikamgarh-aws; 19 - Mounntabu Tehsil SR; 18 - Mounnt Abu; 17 -Bhilwara Tehsil SR and Bhilwara; 16 - Toorsa Tea Garden; 14 - Khanvel;13 - Talbehat, Mandalgarh, Sheohar and Idar; 12 - Meghraj, Satlasanaand Hatta.
23 Jun	26 - Mungaoli; 25 - Bamori; 20 - Jamshedpur; 18 - Jodia; 16 - Mahroni;15 - Mendarda and Badarwas; 14 - Bhagamandala, Talasari, Palsana,Chanderi and Guna-aws; 13 - Uska Bazar Fmo, Dahanu , Vanthali,Sabalgarh, Champai AWS and Forbesganj; 12 - Chandanpur, Kapradaand Kalavad.
24 Jun	28 - Kumargram; 27 - Kamrej; 26 - Bardoli; 25 - Gajoldoba; 24 -Palsana; 23 - Alipurduar PTO and Jawhar; 21 - Saraswatipur Tea Estate;20 - Patkapara Tea Estate, Sevoke and Vikramgad; 19 - Mokheda - Fmo;18 - Sankos Tea Estate, Lonavala ARG, Mangrol and Khanvel; 17 -Kumargram Tea Estate, Leesh River Tea Garden, Vasai, Khalapur,Shahabad, Tilakwada, Gossaigaon AWS, Sankosh, Gossaigaon andMatheran; 16 - Ghish, Oodlabari Tea Estate, Mahabaleshwar and Vyara;15 - Barobhisha, Newlands Tea Garden, Siliguri PTO, Chel, WashabariTea Estate, Roha and Narmada Kvk AWS; 14 - Kailashpur Tea Estate,Sudhagad Pali, Bhiwandi, Radhanagari, Igatpuri, Olpad, Ukai andSuryasen Mahavidyalaya; 13 - Chepan, Siddapura, Poladpur,Gaganbawada, Ozharkheda - Fmo, Borsad, Madhbun, Mahuva andDolvan; 12 - Champasari, Kumlai T.e., Sama, Ajra, Mandvi, Surat City,Karhal, Bhalukpong, Tangla ARG, Galgalia, Lohand and Shahbad.
25 Jun	22 - Lunawada; 21 - Nandod and Kathiwada; 19 - Sallopat SR andDohad; 18 - Jetpur Pavi, Dahod Kvk AWS and Shahera; 17 - Rajpipala, Dharampur, Khanapur and Shahbad; 16 - Long Island, Ajra, Radhanagari, Virpur, Tilakwada and Morva Hadaf; 15 - Palampur; 14 -Sagwara, Modasa, Singvad and Godhra; 13 - Castle Rock, Yellapur, Londa, Haldwani, Limkheda, Khergam and Mandla; 12 - Chandgad, Santrampur, Garudeshwar, Pardi, Singodi and Vijayraghogarh.
26 Jun	24 - Lower Sholayar AWS; 19 - Dolvan; 18 - Avalanche; 17 - Patnagarh,Nilambur, Sholayar and Virajpet; 16 - Napoklu and Tikarpara; 15 -Kotpad, Peermade To, Vyttiri and Malegaon; 14 - Dharmasthala,Udumbannoor AWS, Umerpada, Katra and Agumbe; 13 - Tamsi,Thodupuzha, Nilambur AWS, Valparai PTO, Vansda, Udaigarh, Ghatanjiand Mahagaon; 12 - Kalasa, Talamadugu, Narsinghpur, Papadahandi,Idukki, Chinnakalar, Cincona, Sagbara, Khergam, Bardoli, Karjan andWashim.
27 Jun	25 - Khowang; 17 - Agumbe; 16 - Malia; 15 - Balikuda, Vadali, Talalaand Mangrol (j) ; 14 - Pandoh and Keshod AP; 13 - Mehkar, SajjangarhSR, Sutrapada, Visavadar, Udainagar, Khirkiya-arg and Mangrulpir; 12 -Kayamkulam ARG, Ernakulam South, Chinnakalar, Timarni andMeghnagar.
28 Jun	19 - Chamoli; 17 - Jollygrant; 15 - Sama; 14 - Loharkhet; 13 - MayaBandar and Devendranagar; 12 - Kapkot and Gonour.
29 Jun	32 - Chandua Kuliana; 31 - Baharagora; 30 - Ghatsila; 28 -Jamsolaghat; 27 - Gurabandha; 25 - Sarasakana and Suliapada; 23 - Chandanpur; 20 - Bangiriposi; 19 - Ganganagar; 18 - Samakhunta; 17 -Narendranagar; 16 - Dhalbhumgarh; 15 - Jaleswar and Jollygrant; 14 -Long Island; 13 - Chakulia, Musabani, Jogindarnagar, Kasauli andBihpuria AWS; 12 - Port Blair, Khaira, Chandigarh, Kahu and Paonta.
30 Jun	18 - Mawana and Pathari; 17 - Deoprayag and Jalesar; 16 - Gunnaur; 14- Bijnor and Boram; 13 - Jamda; 12 - Hathras, Meerut, Bilari, Jansath, Muzaffarnagar (t), Pandoh, Badoda, Maharajganj, Patamda and Mandi.
1 Jul	22 - Mandi; 21 - Morena-aws, Palliakalan and Pandoh; 20 - Bijahi; 18 -Bamra; 17 - Fatehpur Tehsil, Desaiganj and Kataula; 16 - Badamalhera, Karsog, Shankargarh and Bari; 15 - Bijawar, Orchha and Dholpur; 14 -Radhanagari, Palampur, Chaupal and Sarkaghat; 13 - Gohar andKurkheda; 12 - Aundhi, Nagbhir and Bramhapuri.
2 Jul	20 - Khanpur; 18 - Chhapara, Geola SR and Asnawar SR; 17 - Jawhar;15 - Kotpad, Malpura and Rajgarh; 14 - Jeypore, Hurda SR andRamganjmandi SR; 13 - Mokheda - Fmo, Guna-aws, Kekri SR, Bhainsroadgarh SR and Sangod; 12 - Koraput, Similiguda, Dolvan andAgumbe.
3 Jul	27 - Vadgam; 25 - Dantiwada and Raipur SR; 24 - Dantewada AWS; 22- Kankavli; 21 - Castle Rock; 20 - Bhilwara; 19 - Margao and Jaitran; 18- Mapusa, Awalegaon - ARG, Sawantwadi and Palanpur; 17 - Ponda,Rajapur, Kudal, Mulde ARG, Sanguem and Radhanagari; 16 - LonavalaARG, Vijapur, Sojat, Gangrar, Valpoi and Agumbe; 15 - Panjim ,Matheran, Quepem, Gaganbawada, Kammardi, Bihubar and Gaisilet; 14- Dodamarg, Kadra, Baliguda, Salebhatta and Dabolim N.a.s.; 13 -Poladpur, Roha, Canacona, Rairakhol, Dhanera, Khedbrahma, Umerpada,Pachhad, Tellichery, Dhabhara, Loharkhet and Jawaja; 12 - Pernem,Karjat ARG, Vaibhavwadi, Mormugao - Pmo IMD, Igatpuri,Mahabaleshwar, Siddapura, Jayapura, Kantamal, Vadali, Sama, Kotri,Begu SR and Arnod SR.
4 Jul	19 - Bichhia and Matiyari; 15 - Ghansore, Tikamgarh-aws, Jamkandorna,Kartala and Kharsiya; 14 - Bijadandi; 13 - Sawantwadi, Nainpur,Narayanganj, Bhaisma, Korba and Pokhran; 12 - Malkharoda, Biharpurand Idar.
5 Jul	23 - Rithi; 19 - Niwas; 18 - Bijadandi; 17 - Sheopur-aws, Umariyapanand Amanganj; 16 - Narayanganj; 15 - Kumdam; 14 - Bhitarwar,Nowrozabad and Indergarh SR; 13 - Bijawar, Dindori-aws, Bilaspur,Chandia, Castle Rock and Bhagamandala; 12 - Badoda, Panagar, Raipuraand Mahroni.
6 Jul	31 - Deogaon; 29 - Bamra; 27 - Laikera; 25 - Kirmira; 23 - Kolabira; 22- Kuchinda; 21 - Jharsuguda, Sundargarh and Chothkabarwara SR; 19 -Jawhar, Mokheda - Fmo and Vyara; 18 - Vikramgad, Bankhedi, Banspal,Hemgiri and Kumargram; 17 - Jaitpur, Bhiloda, Dolvan and Ambikapur;15 - Songadh; 14 - Ozharkheda - Fmo, Palsana and Valod; 13 - Harsul -Fmo, Tangarpali, Silvassa, Bardoli, Ukai, Bonli and Sawai Madhopur; 12 -Matheran, Junnardeo, Mauganj, Lakhanpur and Agumbe.

Table 8 Continued

7 Jul	26 - Pali; 21 - Bichhia; 17 - Igatpuri, Samakhunta and Loharkhet; 16 -Batli and Belgahna; 15 - Balaghat-aws, Waraseoni, Matiyari, Kasganj,Moradabad, Balasore and Bhuj; 14 - Dhanora, Shahdole (sohagpur) andMasturi; 13 - Trimbakshwar, Sleemanabad, Ghughri, Nainpur, Dolvan,Nakhatrana, Bilha, Sama, Bhadra REV, Ateli, Rajgarh and Sikrai; 12 -Bilaspur, Manpur, Chandia, Castle Rock, Kumardungi, Subir, Mungeli,Todabhim and Aligarh.
8 Jul	35 - Waraseoni; 23 - Deori and Baihar; 22 - Katangi; 21 - ArjuniMorgaon and Bramhapuri; 20 - Lalburra and Matiyari; 19 - Sohagpur,Tirodi and Gadarwara; 17 - Paraswada, Desaiganj, Korchi and Alirajpur;16 - Banda; 15 - Narsinghpur-aws, Lakhandur and Nagbhir; 14 -Godadongri, Balaghat-aws and Harrai; 13 - Pipariya, Udaipura, Nainpur,Saoli, Armori and Kurkheda; 12 - Majholi, Mandla, Ghansore, Bilari,Bhiwapur and Tirora.
9 Jul	33 - Belonia ARG; 29 - Belonia; 28 - Umrer; 26 - Kvk South; 25 -Bagafa; 22 - Kuhi; 21 - Katangi; 20 - Sabroom, Nagpur Aerodrome andNagpur (aws) ; 19 - Bhiwapur; 17 - Sabroom AWS and Amarpur; 16 -Lakhandur, Pauni, Hingna and Kamptee; 15 - Tirodi, Gandecherra,Chandanpur, Lava, Chimur and Nagbhir; 14 - Pachmarhi, Lakhani,Mauda, Ramtek and Bramhapuri; 13 - Chanderdeepghat, Chalouni TeaEstate, Durg, Kanina, Bhandara, Sakoli, Desaiganj and Hinganghat; 12 -Haraiya, Manteswar, Balod, Sadakarjuni and Kharangha.
10 Jul	17 - Madawara and Kathua; 16 - Ghatsila and Nasirabad; 15 -Muzaffarnagar (t) and Kotputli; 14 - Madhopur; 13 - Mussoorie, Taoru,Kathua ARG and Gurgaon; 12 - Marri Bangla Deori, Kapkot,Muzaffarnagar and Bilaspur Sadar.
11 Jul	21 - Simla; 19 - Attarra; 13 - Amarpatan and Aliwal; 12 - Chopan Fmo.
12 Jul	25 - Beohari; 24 - Majhgaon; 23 - Manki; 22 - Gudh and Karwi; 21 -Huzur and Manikpur; 20 - Rewa-aws; 19 - Ajaigarh, Unchehra, Rampurand Sidhi; 17 - Churhat; 16 - Ramnagar; 15 - Deori, Rampur Baghelanand Shirali; 14 - Chahtarpur-aws, Khajuraho AP and Panna; 13 -Bijawar, Maihar, Bahri, Baldwara and Kanpur A; 12 - Palera, Kota, Narainiand Mau Tehsil.
13 Jul	30 - Bijawar; 21 - Tikamgarh-aws; 20 - Orchha, Mohangarh andLidhora; 19 - Baldevgarh and Khargapur; 17 - Badamalhera, Nowgong,Palera and Dantiwada; 16 - Khajuraho AP and Mahroni; 15 - Lalitpur; 14- Fatehpur Tehsil; 13 - Rahatgarh, Dantewada AWS and Palanpur; 12 -Prithvipur, Ankinghat and Deesa.
14 Jul	22 - Mandira Dam; 18 - Mangrol; 17 - Badoda, Ghatsila, Pali andShahabad; 15 - Sabalgarh and Pipalda SR; 14 - Khategaon, Rajkanikaand Desuri; 13 - Turtipar and Kishanganj; 12 - Dhamnagar, Aspur andKota-aero.
15 Jul	19 - Savarde-arg and Rajmahal; 18 - Bijoliya SR; 17 - Mulki andBhainsroadgarh SR; 15 - Mahabaleshwar and Udhampur; 14 - SudhagadPali, Chiplun, Rajapur, Castle Rock, Maharo, Ghatsila, Debagram, Makrana SR and Valpoi; 13 - Mhasla, Mandangad, Gaganbawada, Telkoi, Kudulu and Niwai; 12 - Roha, Guhagarh, Dodamarg, Radhanagari,Khowang, Zrs Dumka, Amfu Kalimpong, Degana, Mandana SR andMangalore/P.bur.
16 Jul	22 - Haripur; 21 - Roha; 20 - Sudhagad Pali and Chainpur; 19 - Dobhi;18 - Fatehpur and Sherghati; 17 - Mhasla, Cheria, Kodawanpur/C.b Ii, Barachatti and Mohanpur; 16 - Bankey Bazar andDaltonganj; 15 - Tala and Rajdhanwar; 14 - Mangaon, Khaira andDalsinghsarai; 13 - Nawkothi, Imamganj, Tankuppa, Garhi, Sonbarsaand Herhanj; 12 - Poladpur, Madanpur, Bachwara and Ramanujganj.
17 Jul	30 - Mulki; 25 - Naigarhi; 24 - Chunar; 22 - Mauganj; 21 - Bhanpura,Hanumana, Mangaluru AP, Meja and Mangalore/P.bur; 20 - Bahri; 19 -Mani and Ramganjmandi SR; 18 - Manki and Hosdurg; 17 - Mangaluru,Cheruvanchery AWS, Irikkur, Peringome AWS and Hardwar; 16 - Sulya,Rampur, Bhagwanpur and Taliparamba; 15 - Chitrangi, Puttur HMS,Bayar AWS, Kudulu and Padannakkad AWS; 14 - Bantwal, Kota,Raghopur, Chemberi AWS, Padinjarathara Dam AWS and Jaunpur; 13 -Selu, Dindori-aws, Raipurkarchuliyan, Semariya, Sihawal, Nauhatta, AmsKannur, Tellichery and Hunterganj; 12 - Huzur, Beohari, Kusmi, Majhauli,Karwar, Sasaram, Mahanar, Sahdei Buzurg, Srungavarapukota, AralamAWS, Kannur Airport AWS, Avalanche and Janakpur Bharatpur.
18 Jul	31 - Chahtarpur-aws; 27 - Gaurihar; 23 - Palera; 20 - Attarra andChillaghat; 19 - Lavkushnagar; 18 - Bhanpura and Rajnagar; 17 - Ajaigarh, Karwi, Kulpahar and Sangod; 16 - Manki; 15 - Khajuraho AP, Beberu and Banda; 14 - Birsingpur, Sohawal, Satna (raghurajnagar) andMahoba; 13 - Datia-aws, Badamalhera, Nowgong, Amarpatan, Jatara, Mohangarh, Charkhari and Buxaduar; 12 - Indergarh, Sirmaur, Naraini, Yerragondapalem, Bala Nagar and Kotraguda.
19 Jul	23 - Merta City and Nainwa; 19 - Buxaduar and Mangliawas SR; 18 -Nasirabad; 16 - Chengmari/Diana, Diana Tea Estate and Pratapgarh; 15- Fagu Tea Estate, Pisagan SR and Sarmathura SR; 14 - Malvan, Palashbari Tea Estate, Raipur SR, Ajmer, Kishangarh and Mandar; 13 -Danta, Khivensar SR, Pushkar SR and Sarwar; 12 - Ajmer Tehsil SR, Deogarh and Shirali.
20 Jul	24 - Majherdabri Tea Garden; 23 - Falakata; 21 - Hazuah; 20 -Patkapara Tea Estate; 19 - Bhatkawa Tea Estate; 17 - Domohani,Jhallong and Zurrantee T.e; 16 - Raniganj, Chalouni Tea Estate, DianaTea Estate and Neora; 15 - Barhiya, Mekhliganj, Dharala Valley Tea Esta,Soongachi T.e. and Mounntabu Tehsil SR; 14 - Aryaman Tea Estate,Baradighi T.e., Kumlai T.e. and Raidak Tea Estate; 13 - Atri, Mohra,Gogri, Mansi, Tihu ARG, Barobhisha, Amfu Pundibari, Mathabhanga,Chengmari/Diana, Jalpaiguri and Indong T.e.; 12 - Karwar, Amarpur,Alauli, Chautham, Parbatta, Srinagar, Tura AWS, Alipurduar PTO,Buxaduar, Newlands Tea Garden, Sankosh, Denguajhar Tea Garden,Ghish, Maynaguri College and Nagarkata.
21 Jul	18 - Katra; 16 - Banbasa; 15 - Gumla Bishnupur Kvk AWS, Kangra APand Reasi ARG; 14 - Kharidwar; 13 - Sonamura, Sonamura ARG andNagrota Surian; 12 - Hatadihi and Chuari.
22 Jul	29 - Lonar; 17 - Sonpeth; 13 - Bhanpuri; 12 - Pathri and Kapadvanj.
23 Jul	26 - Venkatapuram; 19 - Manki and Manuguru; 16 - Roha and Kumta;15 - Tala, Gersoppa, Karwar and Govindaraopet; 14 - Pilani; 13 -Eturnagaram and Shirali; 12 - Murud, Shriwardhan, Pen, Ratnagiri, Kankavli, Jharda and Ankola.

Table 8 Continued

24 Jul	24 - Bejjur and Mulchera; 23 - Venkatapuram; 17 - Bamhnidih; 15 -Maksudangarh, Gersoppa and Agumbe; 14 - Honavar, Karwar andAkaltara; 13 - Narsingarh, Manki, Teliamura ARG, Jhorigam, Gharghoda, Ahiri and Shirali; 12 - Itarsi, Karimnagar, Bilaspur, Janjgir and Umrer.
25 Jul	18 - Mada; 17 - Manki; 15 - Lonavala ARG, Raghunath Nagar, Barpali, Mukdega, Sukma and Agumbe; 14 - Matheran, Mahabaleshwar andGersoppa; 13 - Mulki, Castle Rock, Honavar, Bhagamandala, Kotpad, MoSaltlake, Kutaru, Bade Bacheli and Poudi Uparora; 12 - Karjat ARG, Poladpur, Mudubidre, Siddapura, Lalganj, Chitrakunda K Guma andBiharpur.
2**6 Jul**	26 - Mahabaleshwar; 23 - Castle Rock; 21 - Manki; 20 - Matheran,Jagarnathpur and Kusmi; 19 - Gersoppa, Ghatsila and Manjhari; 18 -Lonavala ARG, Bajag, Bhagamandala and Muruda; 17 - Murbad,Ramgarh (bdo) , Bahalda, Kaprada and Agumbe; 16 - Udaipura,Kottigehara, Baripada, Jamda and Dausa; 15 - Poladpur, Radhanagari,Lava and Silvassa; 14 - Ozharkheda - Fmo, Badi, Biaora, Mawai,Gadarwara, Suliapada and Samari; 13 - Sidhi (gopadbanas) , Noamundi,Tantnagar, Gudvela, Kusumi, Tensa, Vapi, Labhandih, Dongargarh,Pratappur, Ganganagar and Raipur; 12 - Jawhar, Singrauli-aws, Kuru,Hatgamharia, Majhgaon, Kaptipada, Raruana, Tiring, Avalanche,Balrampur, Raipur City and Chillaghat.
27 Jul	26 - Avalanche; 23 - Vadgam; 22 - Pushprajgarh, Castle Rock andAgumbe; 21 - Mahabaleshwar, Chauldhowaghat and Mon Sadar NsdmaAWS; 19 - Upper Bhavani; 18 - Dharoi Colony and Ayyankunnu AWS; 17- Sailana, Kathalal, Siddhpur and Chinnakalar; 16 - Modasa, AralamAWS and Naduvattam; 15 - Lonavala ARG, N.lakhimpur/Lilabari,Chemberi AWS, Munnar Kseb and Mawsynram; 14 - Sringeri HMS andKhushalgarh; 13 - Gaganbawada, Radhanagari, Agar, Jhabua-aws,Naharlagun, Talod and Kaprada; 12 - Pathri, Shivpuri, Bhagamandala,Somwarpet, Dahegam, Mahemdavad, Dharampur, Tellichery, Idukki andSama.
28 Jul	26 - Dascroi; 24 - Ramganjmandi SR; 22 - Nadiad; 21 - Cherrapunji(rkm) ; 19 - Biaora and Matar; 18 - Susner, Bhanpura and Zirapur; 17 -Dug and Mawsynram; 16 - Jhalarapatan SR; 15 - Khilchipur, Nawada,Mahudha, Vaso and Jahazpur; 14 - Garoth, Jawad, Manasa, BilodaraAWS, Mahemdavad, Kangra AP, Atru SR, Bijoliya SR, Arnod SR andPanbari; 13 - Cherrapunji, Tihu ARG and Pratapgarh; 12 - Sanand,Umreth, Kheda, Nimbahera and Bakani SR.
29 Jul	21 - Chachoda; 20 - Mandi; 19 - Danapur; 17 - Phulwari Sharif, PurviTundi, Ropar and Patna Aerodrome; 16 - Bareli; 15 - Maksudangarh,Udaipura, Biaora, Karmatand and Namthang; 14 - Daniawan,Sampatchak, Tundi, Narayanpur, Gurudaspur and Kheri; 13 - Badi,Rongli and Tadang; 12 - Raghogarh, Raisen-aws, Giridih, Mangan,Pakyong, Pandoh and Gangtok.
30 Jul	32 - Guna-aws; 25 - Isagarh and Bamori; 23 - Khandar SR; 22 -Badarwas, Deori and Malerainadunger SR; 21 - Sawai Madhopur; 20 -Udhampur; 19 - Salwani, Shamshabad and Chothkabarwara SR; 18 -Narwar and Chuari; 17 - Gairatgang, Pohri, Nateran and Niwai; 16 -Badi, Raisen-aws, Udaipura, Palampur, Shahabad and Vidisha; 15 -Ashoknagar-aws, Aron, Goharganj, Karhal, Sheopur-aws, Bairad, Chabraand Namthang; 14 - Chachoda, Kumbhraj, Maksudangarh andChipabarod SR; 13 - Raghogarh, Begumganj, Biaora, Narsingarh,Ganjbasoda, Gulabganj, Kurwai, Atru SR and Delhi Ridge; 12 - Kolar,Bareli, Sehore-aws, Sironj, Agra (CWC) , Kangra AP and Kishanganj.
31 Jul	16 - Shahpura SR; 14 - Putki Dvc; 12 - Indergarh, Mandalgarh andKotputli.
1 Aug	19 - Taranagar/Reni; 14 - Nohar SR; 13 - Pandarak, Sadulsahar SR andAnupgarh; 12 - Chuari, Sarmathura SR, Ramgarhshekhatan SR andMawsynram.
2 Aug	22 - Una; 21 - Mawsynram; 19 - Gidhaur; 18 - Jhajha; 17 -Pathargama, Barhat and Chanan; 16 - Ghat Kushumba andSriganganagar Tehsil SR; 15 - Amb, Nangal, Cherrapunji (rkm) andMawkyrwat; 13 - Chhibramau, Sahawar, Laxmipur, Barhiya, Hoswari,Cherrapunji and Jamui; 12 - Bilaspur Sadar.
3 Aug	35 - Mawsynram; 19 - Falakata, Kumargram, Domohani, MaynaguriCollege and Cherrapunji (rkm) ; 18 - Denguajhar Tea Garden andMawkyrwat; 17 - Rajnagar and Dalgaon Tea Estate; 16 - Mekhliganj,Jalpaiguri and Gossaigaon AWS; 15 - Taibpur, Alipurduar PTO, AmfuPundibari and Dharala Valley Tea Esta; 14 - Raghunathpur, Nh31 Bridge,Labpur, Debagram, Pudukottai and Doura Kochali; 13 - Jhanjharpur,Bhawanipur, Ayyankunnu AWS, Chepan, Majherdabri Tea Garden,Anandpur Tea Estate, Kailashpur Tea Estate, Mogulkata Tea Estate,Ramchandrapur and Cherrapunji; 12 - Gyanpur, Nighasan, Hanumana,Thakurganj, Dhupguri, Gajoldoba, Kandi, Tirumayam, Mawphlang andTura AWS.
4 Aug	27 - Purnea; 20 - Rae Bareli CWC and Cherrapunji; 19 - Budaun; 17 -Kotdwara and Cherrapunji (rkm) ; 16 - Hayaghat; 15 - Ayoadhya andBhaghmara; 14 - Ram Sanehi Ghat Tehsil, Runnisaidpur, Loharkhet andSama; 13 - Sahaswan, Teonthar, Sheohar, Bettiah, Haldwani, Shella andThodupuzha; 12 - Moradabad CWC, Gunnaur, Sambhal, Piprahi,Purnahia, Dhengbridge, Sikta, Athirappalli AWS and Motihari.
5 Aug	30 - Hardwar; 25 - Bijnor; 22 - Najibabad (t) and Piravam; 18 - A PGhat; 17 - Nagina, Kanth and Narendranagar; 15 - Shahjahapur, Mandi,Rishikesh and Shahjahanpur; 14 - Silchar; 13 - Peechi AWS, Jollygrantand Cherrapunji; 12 - Chandpur, Amberpet, Kotdwara and Shella.
6 Aug	22 - Hardwar; 21 - Narendranagar; 19 - Nagina and Rishikesh; 18 -Kashipur; 17 - Bageshwar (thmo) , Jollygrant and Roshnabad; 16 -Baheri and Bijnor; 15 - Thakurdwara, Kasauli, Pantnagar, Jaspur andBijapur; 14 - Najibabad (t) , Someshwar and Haldwani; 13 - Laksar,Nainital, Manki and Lakshmeswar; 12 - Mapusa, Gohar, Dharampur,Gairkata Tea Estate, R.k.pet and Ghanauli.
7 Aug	21 - Lembuchhera; 18 - Moranhat; 13 - Wallajah; 12 - Agartala AP,Bharwain and Nalagarh.
8 **Aug**	21 - Colonalganj; 17 - Faizabad; 16 - Kaiserganj and Lambhuaa; 15 -Buxaduar; 14 - Ram Sanehi Ghat Tehsil, Jaunpur CWC, Atmakur M andSiliguri PTO; 13 - Elgin Bridge, Amberpet, Shekpet, Jadcherla andKodada; 12 - Madanpur, Alladurg, Saroornagar and Orcha.
9 **Aug**	18 - Fatehpur Tehsil; 14 - Ghatia T.e.; 13 - Churhat and Jhallong; 12 -Ganguwal.
10 Aug	19 - Shella; 15 - Bina; 14 - Amdabad and Cherrapunji; 13 - Atrauli, Cherrapunji (rkm) and Mawsynram; 12 - Lalitpur, Rai REV andGowribidanur.

Table 8 Continued

11 Aug	29 - Newlands Tea Garden; 25 - Kumargram Tea Estate; 24 - Hardwar;21 - Sankos Tea Estate; 20 - Sankosh; 18 - Kumargram; 17 - Dima TeaEstate, Raidak Tea Estate and Bhatkawa Tea Estate; 16 - Aryaman TeaEstate and Dalgaon Tea Estate; 15 - Maheshpur, Daitari, Mangan andMawsynram; 14 - Saharanpur, Alipurduar PTO, Roshnabad, Cherrapunji(rkm) and Cherrapunji; 13 - Nandikotkur, Gopalpur Tea Estate, Majherdabri Tea Garden and Beki Mathungari; 12 - Mekhliganj andBhagwanpur.
12 Aug	29 - Reasi ARG; 23 - Reasi Kvk AWS; 20 - Madhopur, Katra and Kathua;18 - Sangem, Nagrota Surian and Malikpur; 17 - Pathankot ARG andUdhampur; 16 - Guler; 15 - Kathua ARG; 14 - Phangota; 13 -Kodakandla and Bilasipara ARG; 12 - Kheri Lakhimpur andJajireddigudem.
13 Aug	36 - Newlands Tea Garden; 33 - Kumargram Tea Estate; 31 - Sankos TeaEstate; 25 - Sankosh; 24 - Bheemini; 23 - Kumargram; 21 - Khagadia,Alipurduar PTO and Raidak Tea Estate; 19 - Mansi, Mangalagiri andChepan; 18 - Tenali, Majherdabri Tea Garden, Amfu Pundibari andSaraswatipur Tea Estate; 17 - Chityal, Belampalle, Tandoormncl, DimaTea Estate, Falakata and Bhatkawa Tea Estate; 16 - Parsa, Dalgaon TeaEstate, Patkapara Tea Estate, Toorsa Tea Garden and Singimari; 15 -Karamchedu and Mathabhanga; 14 - Patarghat, Regonda, Amaravati,Avanigada, Buxaduar and Siliguri PTO; 13 - Taibpur, Pothia, Kagaznagar,Vemanapalle, Bapatla, Guntur, Atchampet, Suryasen Mahavidyalaya,Naharlagun AWS, Iasst Kamrup ARG, Ranganadi Nt Xing, Majuli andNalbari (Barkhetri Aws) ; 12 - Badwara, Umaria-aws, Raniganj,Thakurganj, Sattar Kataiya, Dahegaon, Venkatapuram, Srirampur,Barobhisha, Aryaman Tea Estate, Gopalpur Tea Estate, Champasari,Itanagar, Khowang, Hasimara and Raigarh.
14 Aug	24 - Tanuku; 23 - Athmalgola; 21 - Rameshwar ARG; 20 - Barh,Kalwakurthy and Hardwar; 19 - Nandigama; 18 - Pantnagar; 16 -Tadepalligudem and Haldwani; 15 - Hasanganj, Bind, Noorsarai,Meskaur, Pargi and Pachhad; 14 - Baheri, Bakhtiarpur and Namthang;13 - Vaibhavwadi, Atri, Mohra, Rahui, Khusrupur, Amalapuram,Vijayawada AP, Denkada, Kumargram, Fagu Tea Estate, Rongo, Nainitaland Gannavaram AP; 12 - Nawabganj Tehsil, Hardoi, Lucknow (Cr) ,Lucknow (Ap) , Lucknow (hs) , Shahjahapur, Neem Chak Bathani,Mohiuddinnagar, Raghopur, Chandrugonda, Madhira, Jadcherla, Doma,Paleru Bridge, Green Field Ps, Kotdwara, Dasuya and Sapau SR.
15 Aug	18 - Harnai IMD and Ratnagiri ; 17 - Tekmal and Jind; 16 - Washi; 15 -Lanja, Savarde-arg, Vaibhavwadi and Ankola; 14 - Guhagarh, Alladurgand Rajouri; 13 - Shriwardhan, Dapoli ARG, Th Rampur, Madnur,Kothaguda, Kadra and Alibag; 12 - Bhokar, Umari, Varni andRajnandgaon.
16 Aug	25 - Santacruz ; 23 - Savarde-arg; 22 - Chiplun and Govindaraopet; 20- Dahigaon - Fmo; 18 - Kudal; 17 - Mandangad; 16 - Palghar ARG,Mhasla, Kotapalle, Naina Davi and Chinnakalar; 15 - Dapoli ARG,Vellanikkara and Valparai PTO; 14 - Panvel ARG, Guhagarh,Mahabaleshwar, Sailana and Agumbe; 13 - Poladpur, Shriwardhan,Wakwali ARG, Gaganbawada, Radhanagari, Lonavala ARG, Pandhurna,Kaleswaram, Lower Sholayar AWS and Peechi AWS; 12 - Tbia IMD PartTime, Khachrod, Sarangapur, Cincona, Sholayar, Upasi Tea ResearchAWS, Alibag and Sironcha.
17 Aug	22 - Phangota; 21 - Erandol; 19 - Wakwali ARG, Niwali, Sendhwa (med)and Ranjit Sagar Dam Site; 18 - Khed and Castle Rock; 17 - Adilabadand Tamsi; 16 - Mahabaleshwar, Himayatnagar, Talamadugu andBhesan; 15 - Mhasla; 14 - Vasai, Mangaon, Savarde-arg, Umerkhed,Durg and Jagalbet; 13 - Chiplun, Dapoli ARG, Harnai IMD, Dahigaon -Fmo, Hadgaon, Sarangapurnrl, Kammardi and Sringeri HMS; 12 -Sudhagad Pali, Tondapur- ARG, Bheemini, Kataula, Jamkandorna,Jayapura, Mangkolemba and Agumbe.
18 Aug	28 - Savarde-arg; 24 - Castle Rock; 23 - Wargal; 22 - Alladurg; 21 -Mhasla and Nizam Sagar; 19 - Dapoli ARG, Wakwali ARG and Agumbe;17 - Khed, Kankavli, Pitlam, Kowdipalle and Jagalbet; 16 -Sangameshwar Devrukh and Paderu; 15 - Harnai IMD, Ratnagiri , Nakur,Yellareddy, Tekmal, Venkatapuram and Kotgiri; 14 - Gaganbawada,Atmakur M, Chodavaram, G Bazar, Upper Gudalur, Siddapura andGersoppa; 13 - Lanja, Rajapur, Margao, Radhanagari, Kotpad, Narsapur,Regode, Bodhan, Varni, Bheemunipatnam, Vepada, Jayapura, SringeriHMS and Padinjarathara Dam AWS; 12 - Panvel ARG, Roha, Raver,Mahabaleshwar, Ahmedpur, Papannapet, Anakapalle, Kadra and Manki.
19 Aug	29 - Sutrapada; 26 - Gaganbawada; 25 - Matheran and Mhasla; 24 -Tala, Savarde-arg and Santacruz ; 23 - Dapoli ARG and Vaibhavwadi; 22- Vasai, Mangaon, Roha, Tbia IMD Part Time, Radhanagari and CastleRock; 21 - Panvel ARG, Shriwardhan and Lanja; 19 - Pen and Manki; 18- Sudhagad Pali and Rajapur; 17 - Mandangad, Thane, Mahabaleshwar,Bhimpur, Eturnagaram, Kottigehara and Karjat ARG; 16 - Wada, Mahad,Poladpur, Armori, Gurdaspur AMFU, Shahuwadi, Bramhapuri andAgumbe; 15 - Chiplun, Khed, Bhiwandi, Lonavala ARG, Desaiganj,Kotpad, Venkatapuram, Diu and Jagalbet; 14 - Uran, Ratnagiri ,Sanguem and Narayanpur; 13 - Khalapur, Sangameshwar Devrukh,Wakwali ARG, Ambernath, Sausar, Bhamragad, Gadchiroli, Kodinar andDevgad; 12 - Palghar ARG, Guhagarh, Harnai IMD, Kankavli, RameshwarARG, Quepem, Ulhasnagar, Wankdi and Gir Gadhada.
20 Aug	44 - Matheran; 43 - Lonavala ARG; 30 - Mahabaleshwar; 26 -Kalyanpur; 23 - Vikramgad, Panvel ARG, Bhiwandi and Karjat ARG; 22 -Tala, Savarde-arg and Thane; 21 - Vasai, Pen and Santacruz ; 20 -Wada, Tbia IMD Part Time and Dwarka; 19 - Jawhar, Palghar ARG and Khalapur; 18 - Mhasla and Sudhagad Pali; 17 - Talasari, Poladpur,Ambernath, Gaganbawada, Radhanagari, Igatpuri, Khanvel andPorbandar; 16 - Castle Rock and Mokheda - Fmo; 15 - Roha,Sangameshwar Devrukh, Dahanu , Vadgaon Maval and Amb; 14 -Mangaon, Chiplun, Mandangad, Vaibhavwadi and Kalyan; 13 - Uran,Dapoli ARG, Khed, Murbad, Shahapur, Uttar Kashi (CWC) , Sutrapada,Shahuwadi and Uttar Kashi (bar) ; 12 - Guhagarh, Ulhasnagar andMorni.
21 Aug	28 - Mendarda; 26 - Keshod AP; 24 - Gandevi; 22 - Okha andPorbandar; 21 - Kaprada and Manavadar; 20 - Chikhli and Vanthali; 19 -Igatpuri and Buxaduar; 18 - Kutiana; 17 - Dolvan and Ranavav; 16 -Navsari and Ozharkheda - Fmo; 15 - Jalalpor and Khergam; 14 -Trimbakshwar, Lonavala ARG, Khurai, Silvassa, Navasari AWS, Vapi andDwarka; 13 - Peth, Mungaoli, Una, Subhasini Tea Estate, Dhupguri,Vyara, Pardi, Umergam, Kalavad and Jhallong; 12 - Jawhar,Radhanagari, Dalgaon Tea Estate, Rongo, Banbasa, Vansda, Mahuva,Valod, Dharampur, Mangrol (j) and Mawsynram.

Table 8 Continued

22 Aug	25 - Sawai Madhopur; 21 - Patan; 19 - Panagarh (IAF) and Mawsynram;17 - Bijoliya SR; 16 - Goilkera; 15 - Badoda, Degod SR andChothkabarwara SR; 14 - Piro, Tribeni/Balmikinagar, Tensa and LadpuraSR; 13 - Kuru, Deogaon, Labpur, Manteswar, Kota-aero, MalerainadungerSR and Damdim Tea Estate; 12 - Bhungra SR.
23 Aug	50 - Nainwa; 31 - Patan; 27 - Degod SR; 24 - Anta SR and Baran; 23 -Kishanganj; 22 - Uniara/Aligarh; 21 - Chandwa and Niwai; 20 - Ghatsilaand Mangrol; 19 - Manoharpur Phc, Sama, Vadali and Nagrarfort SR; 18- Manoharpur, Loharkhet, Khedbrahma and Indergarh SR; 17 - Badoda,Sholinganallur and Tonk; 16 - Varanasi/Bab AP, Kolaras, Sisai, Herhanj,Shahabad and Hindoli; 15 - Tonk Vanasthali and Bundi; 14 - Rajghat (Vns CWC) , Arcot, Ennore AWS, Dharoi Colony and Sapotra; 13 -Sheopur-aws, Naktideul and Cholavaram; 12 - Kuru, Ranchi AP, Bijatala,Tiring, Jagadhari, Bhungra SR and Chaibasa.
24 Aug	29 - Dausa; 19 - Jammu AWS and Jammu; 17 - Sidhi (gopadbanas) ,Chomu, Sapotra and Jammu AP; 16 - Madhopur, Ranjit Sagar Dam Siteand Bhanvad; 14 - Devser and Udhampur; 13 - Robertsganj, Kapu,Phangota, Shahpur Kandi, Jamjodhpur, Jamwaramgarh SR, Kotputli,Gangapur and Kheri; 12 - Bhitarwar, Dabra, Pandoh, Kusmi and AlwarSR.
25 Aug	22 - Sangrur; 21 - Jakhal Mandi Hmo; 19 - Kahu; 17 - Sangrur AWS andNagaur; 16 - Barthin, Ghumarwin, Phangota, Sujangarh and Kherwara;15 - Naina Davi, Tohana and Ranjit Sagar Dam Site; 14 - Chuari, Kheriand Bilaspur Sadar; 13 - Mehre (barsar) ; 12 - Ganguwal, Jalore andMounntabu Tehsil SR.
26 Aug	22 - Gurudaspur; 19 - Barsur, Gurdaspur AMFU and Taran Taran; 18 -Tibri; 16 - Naina Davi, Bastanar and Kathua; 15 - Amritsar; 14 - Gidam,Handiaya Hmo and Burmal ARG; 13 - Chuari, Dhariwal Irr, Madhopur,Malikpur and Kheri; 12 - Darbha, Aliwal and Phangota.
27 Aug	38 - Jammu; 28 - Reasi ARG and Katra; 27 - Reasi Kvk AWS andUdhampur; 25 - Naga Reddipet, Yellareddy and Jammu AWS; 22 -Bhiknur and Bhungra SR; 21 - Nizam Sagar, Sukma and Batote; 20 -Bastanar; 19 - Jeypore, Bhuvanagiri, Lohandiguda and Kadra; 18 -Domakonda, Papannapet, Jammu AP and Badarwah; 17 - Ramayampet,Darbha and Samba AWS; 16 - Borigumma, Kotpad, Gidam and Konta;15 - Pitlam, Medak, Nangur, Bade Bacheli, Katekalyan and Gadiras; 14 -Alladurg; 13 - Quepem, Nandapur, Nandahandi, Yadagirigutta, Tokapaland Kawa AWS; 12 - Koraput, Lamataput, Lingampet, Chhotedongar andBurmal ARG.
28 Aug	41 - Kamareddy; 33 - Bhiknur, Naga Reddipet and Tadwai; 32 -Lingampet and Sadasivanagar; 26 - Chegunta; 25 - Domakonda,Machareddy and Yellareddy; 22 - Thimmapur and Laxmanchanda; 21 -Papannapet and Tadwai Mlg; 20 - Ramayampet, Govindaraopet,Doultabad and Castle Rock; 19 - Sanguem, Ponda, Sarangapurnrl andKondapak; 18 - Quepem, Medak and Dhar Palle; 17 - Mapusa,Dodamarg, Sarangapur, Sathupalle and Gersoppa; 16 - Nizam Sagar andDilawarpur; 15 - Panjim , Canacona, Atrauli, Tekmal, Bheemgal and JitiT.e.; 14 - Sawantwadi, Gandhari, Ellanthukunta, Gambhiraopet andHonavar; 13 - Gaganbawada, Nagireddypet AP, Chinthakam, Alladurg,Ankola and Talikote; 12 - Naigaon Khairgaon, Khammam Urban,Konijerla, Thollada, Khammam (ARG) , Regode, Mirdoddi, Mangaluru AP,Kadra and Karwar.
29 Aug	28 - Loha; 27 - Gandhari; 26 - Kandhar; 25 - Naigaon Khairgaon; 24 -Banswada; 22 - Ahmedpur and Mudhole; 21 - Manki; 20 - Chakur andMukhed; 19 - Mudkhed, Nighasan and Padannakkad AWS; 18 - Umari,Peringome AWS, Hosdurg, Haripur and Mulki; 17 - Bhokar, Umerpadaand Madikkai AWS; 16 - Ardhapur, Lingampet, Sadasivanagar, Varni,Chemberi AWS, Nanded and Shirali; 15 - Renapur, Dharmabad,Kakardharighat, Dhar Palle, Dich Palle, Tellichery, Muliyar AWS and TalukOffice Pandalur; 14 - Jalkot, Tadwai, Yellareddy, Kudulu, Jatton Barrage,Kapkot, Karnaprayag, Sajjangarh SR, Mangaluru AP, Idar andMangalore/P.bur; 13 - Banswada (ARG) , Bheemgal, Ayyankunnu AWS,Suryasen Mahavidyalaya, Jakholi, Ukhimath and Sulya; 12 - ShirurAnantpal, Nepanagar, Gangadhara, Medak, Taliparamba, Vadakara, Mahe, Noweranuddi Tea Garden, Worth Estate Cher, Sama, Bantwal andPadinjarathara Dam AWS.
30 Aug	17 - Halol; 16 - Buxaduar; 15 - Warla, Nagarkata, Dolvan andKhargone; 14 - Mhasla, Chengmari/Diana and Diana Tea Estate; 13 -Harnai IMD, Nawabganj, Bijnor and Shahera; 12 - Murud, Erandol andBanarhat High School.
31 Aug	16 - Banbasa; 15 - Ennore AWS; 13 - Phiringia and Tibi SR; 12 -Shardanagar, Rishikesh, Umreth, Kadana and Mahwa.
1 Sep	26 - Banbasa; 22 - R L Bbmb and Nangal; 20 - Pachhad and Jullundar;19 - Kothagudem, Naina Davi and Solan; 18 - Ropar, Khatima andNahan; 17 - Fursatganj, Jatton Barrage, Khanna, Ganguwal and Kotla;16 - Asnawar SR; 15 - Aligarh, Sambhal, Yellandu, Lohand andDungargarh; 14 - Chhotisadri and Rajgarh; 13 - Rae Bareli CWC,Sahawar, Rohru, Sangraha, Renuka/Dadhau, Kasauli, Sirsa IAF,Chakrata, Jalore, Jhalarapatan SR, Mehre (barsar) , Bareilly PBO,Dharampur and Khammam; 12 - Palawancha, Mallapur, Morni, LudhianaIrr, Purola, Ludhiana, Una and Simla.
2 Sep	23 - Sasani and Hatadihi; 20 - Naina Davi; 18 - Dausa; 17 - Nakur, BulIrr and Ludhiana Irr; 15 - Bilari and Payal REV; 14 - Gurgaon; 13 -Chandausi, Th Rampur, Ghasipura, Nangur and Balasore; 12 -Robertsganj, Budaun, Hathras, Nh5 Gobindpur, Beri, Haldwani, SagarIsland PTO and Sagar Island.
3 Sep	30 - Udhampur; 23 - Reasi ARG and Reasi Kvk AWS; 21 - Katra; 20 -Ladwa; 18 - Batote; 17 - Khedijalab REV; 15 - Babain REV; 14 - NainaDavi, Khatima, Sarangpur and Sangrur; 13 - Patnagarh and AralamAWS; 12 - Khekda, Dhuri, Sangrur AWS, Banbasa, Bhaderwah ARG,Chemberi AWS and Badarwah.
4 Sep	23 - Khammam; 21 - Laikera and Kumbhraj; 19 - Depalpur; 18 -Sukinda; 17 - Kirmira and Patharia; 16 - Danagadi, Kolabira andGautampura; 15 - Deogarh, Chandikhol, Barwala and Raghogarh; 14 -Lakhanpur and Bhikangaon; 13 - Agra (CWC) and Daitari; 12 - Jajpur,Jajpur PTO, Morni, Reasi ARG, Hatod, Indore, Bakore ARG, Bulandshahrand Katra.
5 Sep	21 - Umerpada; 20 - Bodeli; 19 - Jambughoda and Palera; 16 - Ukai; 15- Jetpur Pavi; 14 - Netrang, Tilakwada and Songadh; 13 - LakhimpurARG and Sankheda; 12 - Lakhipur ARG, N.lakhimpur/Lilabari, Bhaisma,Sallopat SR, Ankleshwer, Vyara, Vyara AWS and Piploda.
6 Sep	16 - Banera SR; 15 - Kadana and Dolvan; 14 - Naina Davi and Kaprada;13 - Ratlam-aws; 12 - Matheran, Sarwar and Kotri.

Table 8 Continued

7 Sep	24 - Madhbun; 23 - Kaprada; 21 - Sanchore and Silvassa; 20 - Jalore;17 - Khanvel and Nanipalson; 15 - Gogunda SR and Poshina; 14 -Budhjongnagar ARG, Dharampur and Umergam; 13 - Peth andPindwara; 12 - Talasari, Kotda SR, Danta and Lakhani.
8 Sep	40 - Suigam; 36 - Rapar; 35 - Bhabhar; 30 - Wav; 29 - Tharad; 25 -Mounntabu Tehsil SR; 20 - Santalpur; 19 - Radhanpur; 14 - AlipurduarPTO, Chepan, Deodar and Bachau AWS; 12 - Laikera, Sanchore andMalia Miana.
9 Sep	15 - Lakhpat; 12 - Taibpur.
10 Sep	16 - Gyalsing PTO; 13 - Bettiah.
11 Sep	18 - Kamalapur; 16 - Chanpatia; 15 - Sikta; 13 - Kinwat, Madurai Southand Madurai North; 12 - Saidapur, Sholapur , Tribeni/Balmikinagar,Panchapatti and Tallakulam.
12 Sep	25 - Huzurabad; 22 - Chigurumamidy and Amfu Pundibari; 20 - Medak;19 - Medak (ARG) ; 12 - Bachhanpet and Shankarapatnam.
13 Sep	25 - Haripur; 23 - Narendranagar; 19 - Mussoorie; 18 - Bharari; 17 -Barobhisha; 16 - Purna and Chel; 14 - Buxaduar and Hilla T.e.; 13 -Chepan, Mekhliganj and Tinsukia AWS.
14 Sep	30 - Taibpur; 23 - Falakata and Dharmsala; 22 - Thakurganj; 20 -Paithan; 19 - Dharala Valley Tea Esta; 18 - Chepan, Sankos Tea Estateand Patkapara Tea Estate; 17 - Majherdabri Tea Garden; 16 - Ghish; 15- Pothia, Saurbazar and Raidak Tea Estate; 14 - Forbesganj, Neora,Washabari Tea Estate and Bhira; 13 - A P Ghat, Matijuri, Jharnapani,Venkatapuram, Tedhagach, Palampur, Alipurduar PTO, Kumargram TeaEstate, Bhatkawa Tea Estate, Denguajhar Tea Garden and Oodlabari TeaEstate; 12 - Karimganj, Sudhagad Pali, Newlands Tea Garden andJalpaiguri.
15 Sep	28 - Toorsa Tea Garden; 27 - Matheran; 20 - Digha; 19 - Deoprayag; 17- Panvel ARG and Jiti T.e.; 16 - Poladpur and Khagadia; 15 - Karjat ARG,Mahad and Zrs Dumka; 14 - Gohpur; 13 - Nautanwa, Colaba , Guntur,Chakradharpur, Lohagaon IAF and Hakimpet IAF; 12 - Jhallong.
16 Sep	21 - Cherrapunji (rkm) ; 20 - Narendranagar; 17 - Haripur; 15 - ElginBridge and Kumargram; 14 - Colonalganj and Hilla T.e.; 13 -Bhawanipur, Nagrota Surian and Haldwani; 12 - Bahraich, Mahsi,Ambabhona, Kurti T.e., Moraghat Tea Estate, Nainital and Jalna.
17 Sep	22 - Khagadia; 19 - Mansi; 18 - Sriperumbudur; 16 - Khaknar; 15 -Roshnabad; 14 - Pasighat AP and Dumraon; 13 - Hardwar; 12 -Williamnagar, Baltara, Tribeni/Balmikinagar, Ghughumari and Burhanpur.
18 Sep	19 - Williamnagar; 17 - Narendranagar; 15 - Amberpet; 14 -Williamnagar AWS and Naina Davi; 13 - Dharala Valley Tea Esta and Jaisingh Nagar; 12 - Dumra, Supaul, Cuddapah, Proddutur, Mussoorieand Bilaspur Sadar.
19 Sep	22 - Washi; 19 - Vilupuram; 17 - Chengmari/Diana and Tirupathur PTO;16 - Naina Davi, Tirupattur AWS, Vadapudupattu and Rscl-2 Kedar; 15 -Savarde-arg, Taibpur, Chel, Saraswatipur Tea Estate and Vaniyambadi;14 - Jaybirpara Tea Estate, Chalouni Tea Estate, Ghish, Washabari TeaEstate and Tirupattur; 13 - Bhagatpur Tea Estate, Denguajhar TeaGarden, Gajoldoba, Jalpaiguri, Leesh River Tea Garden, MaynaguriCollege, Panruti, Vanamadevi and Jamunamarathur; 12 - Port Blair,Dalgaon Tea Estate, Sevoke, Kumlai T.e., Noweranuddi Tea Garden, Mavliand Rscl-2 Valavanur.
20 Sep	15 - Royachoti.
21 Sep	12 - Umarga, Parbatta and Nandod.
22 Sep	20 - Paithan; 17 - Bhum; 16 - Atmakur M; 15 - Patoda; 14 - Pachora;12 - Devaruppal, Alladurg, Madha and Rscl-2 Nemoor.
23 Sep	25 - Alipore; 23 - Mo Saltlake; 17 - Dangs (ahwa) ; 16 - Shevgaon; 14 -Bhadgaon and Pachora; 13 - Gundala, Pathardi and Amta; 12 -Machareddy and Ozharkheda - Fmo.
24 Sep	23 - Burla; 18 - Ambabhona, Hatadihi, Dhankauda, Sambalpur andSonakhan; 16 - Hirakud and Gidhori Tundra; 15 - Sarsiva; 14 - Mandar;13 - Tiring, Umarkote and Seovrinarayan; 12 - Kanchanpur, Atabira,Basana, Bilaigarh and Sarangarh.
25 Sep	14 - Rajim and Gobra Nawapara; 13 - Arang.
26 Sep	18 - Thirparappu and Oothu; 17 - Sethiathope, Nalumukku andNeyyattinkara; 16 - Suralacode; 15 - Chittar and Trivandrum AP; 14 -Adayamadai, Kuzhithurai, Peermade To, Lower Sholayar AWS and LowerKothaiyar ARG; 13 - Puthan Dam, Perunchani Dam, Kakkachi andThiruvananthapuram; 12 - Pechiparai.
27 Sep	17 - Ahmedpur; 15 - Palam; 14 - Loha; 13 - Aspari; 12 -Chauldhowaghat, Salebhatta, Kataram, Ghattu, Nawabpet and Sonua.
28 Sep	18 - Palghar ARG, Shevgaon and Khultabad; 17 - Surgana; 16 - Harsul -Fmo; 15 - Nandgaon, Nanipalson and Bhira; 13 - Dahanu , Kopargaon,Rahuri, Kannad and Loha; 12 - Colaba , Murbad, Thane, Yeola, Kapradaand Vaijapur.
29 Sep	26 - Diu; 24 - Talasari and Khanvel; 23 - Madhbun; 22 - Sutrapada; 19 -Ozharkheda - Fmo and Silvassa; 18 - Jawhar, Palghar ARG and Mangrol(j) ; 17 - Vikramgad and Wada; 14 - Bandhugaon, Murbad, Harsul - Fmoand Una; 13 - Honavar, Mokheda - Fmo, Matheran, Nanipalson andKodinar; 12 - Gersoppa, Manki, Dahanu , Vasai, Nandgaon, Talala,Veraval, Keshod AP and Shirali.
30 Sep	Nil.

September. On 16th September withdrew from some more parts of Rajasthan; some parts of Gujarat, Punjab and Haryana; on 22nd September it withdrew from some more parts of Gujarat, Rajasthan, Haryana and Punjab; on 26th September some more parts of Gujarat, entire Rajasthan, some more parts of Madhya Pradesh & Uttar Pradesh and entire Western Himalayan Region (Jammu – Kashmir - Ladakh – Gilgit – Baltistan - Muzaffarabad, Himachal Pradesh, Uttarakhand). There was no further withdrawal till 10th October, when the monsoon withdrew from major part of North India and and it withdrew from entire country on 16th Oct. 2025.

3. Chief synoptic features of southwest Monsoon 2025

The details of synoptic disturbances which affected the Indian monsoon region during June, July, August and September are given in Tables 4 to 7 respectively.

Total nineteen low-pressure systems formed during the monsoon season of 2025, out of which one intensified Severe cyclonic storm "Shakhti", two deep depression and five depression. Other than these systems eleven low pressure areas formed out of which two intensified to Well Marked Low Pressure areas. The off-shore trough along different parts of the west coast appeared on 19 June, persisted from 3-7 July, 24-27 July & 17-21 August.

4. Extra Indian Features

4.1. *Cross Equatorial Flow during June – September 2025*

(a) Over the Arabian Sea

	5° N – 5° S					North of 5° N				
		Weeks					Weeks			
Month	Normal (in kts)	1	2	3	4	Normal (in kts)	1	2	3	4
June	10-12	+7	+1	+1	+7	15-20	-1	0	+3	+7
July	12-14	0	-1	0	0	20-25	-1	-2	0	0
Aug	12-14	-3	0	-1	0	20-25	-2	-7	-7	-5
Sept.	08-10	+1	+1	+1	+2	05-10	+5	+3	+1	+3

The Cross-Equatorial flow along the equatorial belt (equator to 5 °N/5 °S) over Arabian Sea was:

(*i*). In June 2025, it was above normal in 1st week, 2nd week, 3rd and 4th week.

(*ii*). In July 2025, it was below normal in 2nd week, and it was normal 1st week 3rd and 4th week.

(*iii*) In August 2025, it was below normal in 1st week and 3rd week while it was normal in 2nd and 3rd week.

(*iv*) In September 2025, it was above normal in 1st week, 2nd week, 3rd and 4th week.

The surface winds over Arabian Sea to the north of 5 °N were:

(*i*) In June 2025, it was below normal in 1st and normal 2nd week and it was above normal in 3rd week and 4th week.

(*ii*) In July 2025, it was below normal in 1st and 2nd week and normal in 3rd and 4th week.

(iii) In August 2025, it was below normal in all week.

(iv) In September 2025, it was above normal in all week.

(b) Over the Bay of Bengal

	5° N – 5° S					North of 5° N				
		Weeks					Weeks			
Month	Normal (in kts)	1	2	3	4	Normal (in kts)	1	2	3	4
June	08-10	0	+2	+3	0	10-15	+1	0	0	+1
July	08-10	-1	-1	+3	0	10-15	0	0	0	0
Aug	08-10	+4	0	0	+1	10-15	0	0	0	0
Sept.	08-10	0	+2	+3	0	10-15	+1	0	0	+1

The Cross Equatorial flow along the equatorial belt (equator to 5 °N/ 5 °S) overBay of Bengal was:

(*i*) In June 2025, it was normal in1st and 4th week and was above normal in 2nd and 3rd week.

(*ii*) In July 2025, it was below normal in 1st week, 2nd week and it was above normal in 3rd week while it was normal in 4th week.

(*iii*) In August 2025, it was above normal in 1st week, 4th week and it was normal 2nd week, 3rd week.

(*iv*) In September 2025, it was normal in 1st week and it was above normal all week.

The surface winds over the Bay of Bengal to the north of 5 °N were: -

(*i*) In June 2025, it was normal in 2nd and 3rd week and above normal in1st and 4th week.

(*ii*) In July 2025, it was normal in all week.

(iii) In August 2025, it was normal in all week.

(iv) In September 2025, it was above normal in 1st week and normal in 2nd, 3rd and 4th week.

4.2. *Position of Equatorial Trough was*

June 2025 :- South of its normal position by 2°-3°, from 40° E to 85°E, 1°-4° from 85° E to 110°E in the first week . North of its normal position by 1°-2° from 40° E to 62°E and by 1° - 5° from 62° E to 110° E in the second week. North of its normal position by 1° from 40° E to 90° E, South of its normal position by 1° from 90° E to 110° E in the Third week. North of its normal position by 1° from 40° E to 82° E and south of its normal position by 1°-2°, from 82° E to 110° E in the 4th week. North of its normal position by 1°-2°from 40° E to 70°E and south of its normal position by 1°-4°, to the from 70° E to 103° E and north of its normal position by 1° from 103° E to 110° E in the 5th week.

July 2025: South of its normal position by 1°-2°, from 40° E to 75° E, actual is in its normal position from 75° E to 83° E, South of its normal position by 1°-8°, from 83° E to 110° E in the first week. South of its normal position by 1°-2°, from 40° E to 77° E and South of its normal position by 1°-4°, from 77° E to 110° E in the 2nd week. South of its normal position by 1°, from 40° E to 73° E and South of its normal position by 1°-3° from 73° E to 96° E and South of its normal position by 3°-9° from 96° E to 110° E in the 3rd week. South of its normal position by 1°-3° from 40° E to 90° E and South of its normal position by 3°-9 ° from 90° E to 110° E in the 4th week.

August 2025: It was South of its normal position by 2°-4° from 40° E to 95° E and South of its normal position by 3°-8° from 95° E to 110° E in the first week. South of its normal position by 2°-4° from 40° E to 90° E and South of its normal position by 2°-8° from 90° E to 110° E in the 2nd week. South of its normal position by 1°-2° from 40° E to 93° E and South of its normal position by 1°-3° from 97° E to 110° E in the 3rd week. South of its normal position by 1°-3° from 40° E to 106° E and North of its normal position by 1° from 106° E to 110° E by 4th week. South of its normal position by 1° - 2° from 40° E to 83° E and actual is in its normal position from 83° E to 110° E.

September 2025:South of its normal position by 1°-3° from 40° E to 82° E and South of its normal position by 2°- 3° from 82° E to 110° E in the first week. South of its normal position by 1°-4° from 40° E to 75° E and South of its normal position by 1°-3° from 75° E to 110° E in the 2nd week. South of its normal position by 3°-8° from 40° E to 71° E and South of its normal position by 3°-4° from 71° E - 110° E in the 3rd week. South of its normal position by 1°-2° from 40° E to 50° E, North of its normal position by 1°-2° from 50° E to 110° E in the 4th week.

4.3. *Low Pressure Systems*

Low Pressure Systems during June to September 2025 in Bay of Bengal

Low Pressure Systems	June	July	August	September	Total
Low Pressure Area	02	01	02	02	07
Well Marked Low Pressure (WML)	01	00	01	01	03
Depression	00	02	01	00	03
Deep Depression	00	00	00	01	01
Tropical Storm (T.S.)	00	00	00	00	00
TOTAL	03	03	04	04	14

Low Pressure Systems during June to September 2025 in Arabian Sea

Low Pressure Systems	June	July	August	September	Total
Low Pressure Area	02	00	00	00	02
Well Marked Low Pressure (WML)	00	00	00	00	00
Depression	00	00	00	00	00
Deep Depression	00	00	00	00	00
Tropical Storm (T.S.)	00	00	00	00	00
TOTAL	02	00	00	00	02

Besides this, two depressions and one deep depression formed over land during July 2005.

Low Pressure Systems over the West Pacific Ocean/ South China Sea

There were in all, 24 low pressure systems (reaching the intensity of Tropical depression and above) in the northwest Pacific Ocean / South China Sea during June – September 2025. The month wise break-up is given below:

Low Pressure Systems	June	July	August	September	Total
Tropical Depression (T.D.)	01	01	01	00	03
Tropical Storm (T.S.)	01	04	03	02	10
Typhoon (Ty)	01	04	02	03	10
Super Typhoon (S Ty)	00	00	00	01	01
TOTAL	03	09	06	06	24

Low Pressure Systems in South Indian Ocean:

Three tropical cyclone formed in Southern Hemisphere during June-Sept 2025 *viz.*

(*i*) 01 S (One) during 17 to 19 July 2025

(*ii*) 02 S (AWO) during 07 to 08 August 2025

(*iii*) 03 S (BLOSSOM) during 09 to 12 September 2025

4.4. *Troughs in Westerlies affecting the Indian region: to the south of 30º N and to the north of 30°S during June to September 2025.*

The Upper air troughs in mid and upper tropospheric Westerly over Indian region:

The month wise details of the number of troughs in westerlies which moved across Indian region from west to east and penetrated to the south of 30°N are given below:

Atmospheric Level	June	July	August	September	Total
500 hPa	04	04	03	06	17
300 hPa	04	04	04	07	19

Upper Air Troughs in westerlies over South Indian Ocean, which penetrate to the north of latitude 30°S. *(Source: INOSHAC/CONSTANT PRESSURE MAPS, USA)*

The month wise details of the number of troughs in westerlies which moved across South Indian Ocean from west to east, penetrated to the north of Lat.30°S, in the Southern Hemisphere are given below:

Atmospheric Level	June	July	August	September	Total
500 hPa	04	06	05	06	21
300 hPa	05	06	06	05	22

4.5. *Normal position of Mascarene HIGH is centered at 30° S / 50° E and Australian HIGH is centered at 30° S / 140° E during June to September 2025.* (*Source: Climatic Atlas of The Indian Ocean)

The monthwise intensity of Mascarene HIGH which was centered at its mean position of Lat. 32.8° S and Long 53.3° E during June to September 2025 is as follows:

Month	*Normal Pressure (hPa) (approx.)	Actual Pressure (hPa)	Departure from normalhPa (approx)
June	1023.0	1028.7	+5.7
July	1025.5	1033.6	+8.1
August	1026.0	1030.3	+4.3
September	1023.5	1027.7	+4.2

(**Source:CMAD, NOAA*)

The Mascarene HIGH with its mean position at 32.8° S / 53.3° E was strengthened by 8.1 HPa in the month of July 2025. It was above normal by 5.7, 8.1, 4.3 & 4.2 hpa during the months of June, July, August and September 2025.

The monthwise intensity of Australian HIGH which was centred with its Mean position at Lat. 32.7° S and Long 135.5° E. during June to September 2025 is as follows:

Month	*Normal Pressure(hPa) (Approx.)	Actual Pressure(hPa)	Departure from normal hPa (Approx)
June	1022.0	1031.2	+9.0
July	1022.0	1026.5	+4.5
August	1020.5	1031.3	+10.8
September	1018.0	1028.3	+10.3

The Australian HIGH centred at 32.7° S / 135.5° E was strengthened by an average of about 10.8 hPa during the month of August 2025. It was above normal by 9.0, 4.5, 10.8 & 10.3 hPa in the month of June, July, August and September 2025 respectively.

5. Semi–permanent systems

5.1. *Heat Low*

The monthwise lowest and the second lowest values at the centre of Heat Low were:

June: 992.2 hPa (on 24) and 992.5 hPa (on 19)

July: 992.8 hPa (on 5) and 993.4 hPa (on 6)

August: 977.7 hPa (on 4), 984.0 hPa (on13)

September: 995.3 hPa (2) and 997.7 (on 8).

5.2. *Monsoon Trough*

During the southwest monsoon season, the expansion of the heat low positioned over the Indo-Pakistan region gives rise to a trough that extends south eastward, reaching all the way to Gangetic West Bengal. On surface weather charts, this trough line can be traced from Ganganagar to Kolkata, passing through Prayagraj. It carries with it westerly to south-westerly winds on its southern side, while the northern side experiences easterlies or south-easterly winds. The constantly shifting position of this monsoon trough (MT) line plays a pivotal role in determining the patterns of monsoon-related activities and the distribution of rainfall. When the MT line is situated near the foothills of the Himalayas, it marks a period referred to as the 'break-in monsoon.' During this phase, there is a decline in the amount of rainfall over most regions of the country. However, the Himalayan mountain range receives significant precipitation, often resulting in sporadic river flooding due to the rivers originating in that area. After the establishment of the monsoonal circulation and the advancement of the monsoon over the Indian region, monitoring of the monsoon trough began on 30 June 2025. During July, the MT was observed near its normal or south of its normal position throughout, leading to enhanced rainfall activity over the monsoon core zone. In the first half of August, the trough remained close to its normal position. By the second week, while the western end of the monsoon trough was near its normal position, the eastern end was located south of its normal position. In the first half of September, the trough again lay south of its normal position, but in the second half, the western end shifted north of its normal position, while the eastern end remained south of its normal position due to the formation of synoptic systems in the Bay of Bengal.

5.3. *Tibetan Anticyclone/HIGH*

During the 2025 monsoon season, the Tibetan anticyclone primarily centered over the southeastern Tibetan Plateau, exhibited marked variability in both its position and intensity, with clear implications for the distribution of monsoon rainfall over India. The anticyclone was not well established until 12 June, after which it developed rapidly and settled close to its climatological position (near 25° N, 92° E) by the final week of June. In July, its core oscillated between a southeastward or near-normal position during the first half and a near-normal to westward displacement during the second half. Throughout August, the anticyclone was predominantly located east of its climatological position in the first half, shifting to a near-normal or northwestward position in the latter half. In September, it remained largely west or northwest of its normal location, and its structure became indistinct during the second half of the month, indicating a weakening consistent with the season‘s withdrawal phase

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5.4. *Tropical Easterly Jet (TEJ):*

The TEJ got established over the southern peninsular India by 30 May over Cochin withreporting easterlies of 102 knots at 92 hPa level. The highest wind speed of 129 knots was recorded over Kaveli on 11th August at 117 hPa. prolonged phase of strong easterly flow, with wind speeds consistently exceeding 60 knots from mid-June through July and again during mid-August. Pronounced short-term fluctuations were evident during the latter half of August. During the first half of September, the TEJ exhibited a brief intensification, followed by increased variability toward the latter part of the month. The monthly evolution of the TEJ also highlights notable meridional shifts in its core position. In June, the jet axis was primarily confined near 15° N. During July and August, it displayed significant north–south oscillations, extending as far north as 18°-20° N and remaining north of its climatological mean position on most days. By September, the TEJ gradually retreated southward and realigned close to 15°N, closely corresponding to its normal latitudinal position.

5.5. *Sub-Tropical Westerly Jet (STWJ)*

The STWJ shifted northwards from mid of June, Srinagar reported 71 knots wind (at 250 hPa) at 00 UTC of 15 June. Subsequently, the core of STWJ shifted to the north of the Himalayas. It once again shifted southwards as evident by the 89 knots westerly wind reported over Srinagar at 195 hPa on 3 October at 00 UTC.

6. Other features

6.1. *Monthly wind anomalies during Southwest Monsoon 2025*

The circulation anomaly features at lower, middle and upper tropospheric levels 850, 700, 500 and 200 hPa during the southwest monsoon season are discussed below:

6.1.1. *June wind anomaly features*

In the monthly wind pattern, two anomalous cyclonic circulations were seen, one at 850 hPa over west Madhya Pradesh & neighbourhood and other at 850 hPa over north

Bay of Bengal extending upto 500 hpa. An anomalous ridge was seen at 200 hPa along 30°N.

During the week ending 4 June, an anomalous cyclonic circulations was seen at 850 hPa over Gangetic west Bengal and neighbourhood extending upto 700 hPa. An anomalous ridge was seen at 200 hPa along 27° N.

During the week ending 11 June, an anomalous cyclonic circulation at 700 hpa over coastal Andhra Pradesh & neighbourhood which extended upto 500 hpa. An anomalous ridge was seen at 200 hPa along 33° N.

During the week ending 18 June, two anomalous cyclonic circulations were seen, one over coastal Karnataka and neighbourhood extending upto 500hPa and other over north Bay of Bengal and neighbourhood at 850 hpa.

During the week ending 25 June, an anomalous cyclonic circulation was seen at 850 hPa over Madhya Pradesh and neighbourhood extended upto 500 hpa. An anomalous ridge was seen at 200 hPa along 33°N.

6.1.2. *July wind anomaly features*

In the monthly wind pattern, two anomalous cyclonic circulations were seen at 850 hPa, one over west Madhya Pradesh & adjoining east Rajasthan and the other over Jharkhand and neighbourhood extending upto 500 hPa. An anomalous cyclonic circulation was seen at 700 hpa over north Bay of Bengal and neighbourhood extending upto 300 hPa. An anomalous ridge was seen at 200 hPa extended along 33° N.

During the week ending 2 July, anomalous cyclonic circulation was seen over north Odisha & and neighbourhood extending upto at 850 hPa. A ridge was seen at 300 hPa extended along 34°N.

During the week ending 9 July, two anomalous cyclonic circulations were seen at 850 hPa, one over north Bay of Bengal and neighbourhood extending upto at 500 hPa & other over west Madhya Pradesh & neighbourhood extending upto at 300 hPa. An anomalous ridge was seen at 200 hPa extended along 32° N.

During the week ending 16 July, three anomalous cyclonic circulations were seen at 850 hPa, one over north Bay of Bengal and neighbourhood extending upto at 300 hPa, second over west Madhya & neighbourhood extending upto 300hPa and third over Vidarbha & neighbourhood.

During the week ending 23 July, an anomalous cyclonic circulation was seen at 850 hpa over Haryana & neighbourhood extending upto at 500 hPa. An anomalous cyclonic circulation was seen at 700 hpa over Tamil Nadu and neighbourhood which extended upto 300 hpa.

During the week ending 30 July, an anomalous cyclonic circulation was seen at 850 hpa, one over north Bay of Bengal and neighbourhood which extended upto 200 hpa. An anomalous ridge was seen at 200 hPa extended along 34°N.

6.1.3. *August wind anomaly features*

In the monthly wind pattern, an anomalous cyclonic circulation was seen at 850 hpa over Tamil Nadu and Neighbourhood. An anomalous ridge was seen at 200 hPa extended along 32°N.

During the week ending 6 August, an anomalous anticyclonic circulation was seen at 850hpa over north Bay of Bengal and neighbourhood extended upto 500 hPa. an anomalous ancyclonic circulation was seen at 500 hpa over Assam and neighbourhood extended upto 300 hPa.

During the week ending 13 August, an anomalous anticyclonic circulation was seen at 850 hPa over Madhya Pradesh and neighbourhood extended upto 700 hPa.

During the week ending 20 August, an anomalous cyclonic circulation was seen at 850 hpa over westcentral Bay of Bengal off Andhra Pradesh coast extended upto 300 hPa.

During the week ending 27 August, two anomalous cyclonic circulations were seen at 850 hPa, one over Gangetic west Bengal and neighbourhood extended upto 300 hPa and other over west Madhya Pradesh and neighbourhood which extended upto 300 hPa. An anomalous ridge was seen at 200 hPa extended along 34° N.

6.1.4. *September wind anomaly features*

In the monthly wind pattern, an anomalous cyclonic circulation was seen at 850 hPa level over Telangana & neighbourhood which extended upto 500 hpa An anomalous ridge was seen at 200 hPa extended along 35° N.

During the week ending 3 September, an anomalous cyclonic circulation was seen at 850 hpa over Telangana & neighbourhood extended upto 300hpa. An anomalous ridge was seen at 200 hPa extended along 30° N.

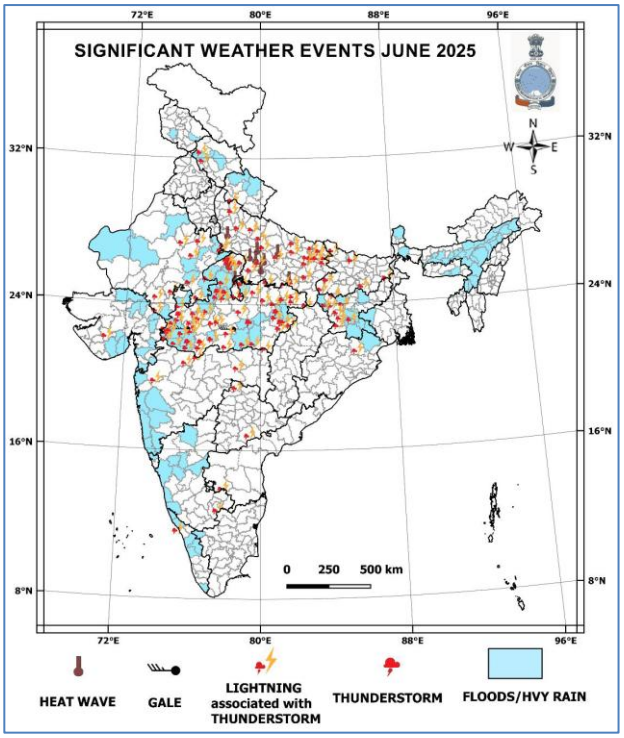

Fig. 9.

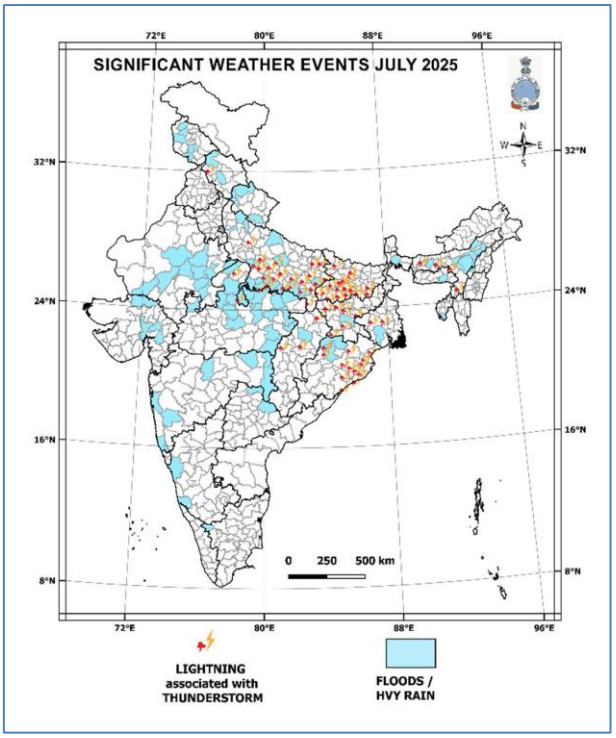

Fig. 10

During the week ending 10 September, an anomalous cyclonic circulation was seen at 850 hPa over Gujarat and neighbourhood extended upto 500 hpa. An anomalous ridge was seen at 200 hPa extended along 32°N.

During the week ending 17 September, an anomalous cyclonic circulation was seen at 850 hPa over Telangana and neighbourhood extended upto 500 hpa. An anomalous ridge was seen at 200 hPa extended along 30° N.

During the week ending 24 September, two anomalous cyclonic circulations were seen at 850 hPa, one over Marathwada & neighbourhood & other over Rajasthan & neighbourhood. An anomalous ridge was seen at 300 hPa extended along 37° N.

During the week ending 1 October, an anomalous cyclonic circulation were seen at 850 hPa, over west-central Bay of Bengal & neighbourhood. An anomalous ridge was seen at 200 hPa extended along 35° N.

7. Disastrous weather events and damage during Monsoon months

7.1. *June*

During June, a total of 330 persons reportedly died, more than 260 persons were injured, more than 10 persons were missing, and more than 10,000 livestock perished. Lightning, associated with thunderstorm, thunderstorm, heavy rains & landslide, heat wave and gale claimed 201, 6, 101, 21 and 1 persons death respectively.

Fig. 9 shows deaths and damage due to significant weather events during June 2025. (Based on real-time media reports)

7.1. *July*

During July 2025, a total 264 persons reportedly died, more than 100 were injured, more than 25 persons missing and more than 200 livestock perished. Lightning associated with thunderstorms and heavy Rains, floods & Landslide claimed 153, 111 persons death respectively.

7.3. *August*

In August 2025, a total of more than 280 people reportedly died, more than 200 were injured, 290 were reportedly missing, and more than 700 livestock perished. Heavy Rains, Floods, Cloudbursts and Landslides and Lightning associated with Thunderstorm claimed 227 & 54 persons death respectively.

Fig. 11 shows deaths and damage due to significant weather events during August 2025. (Based on real-time media reports)

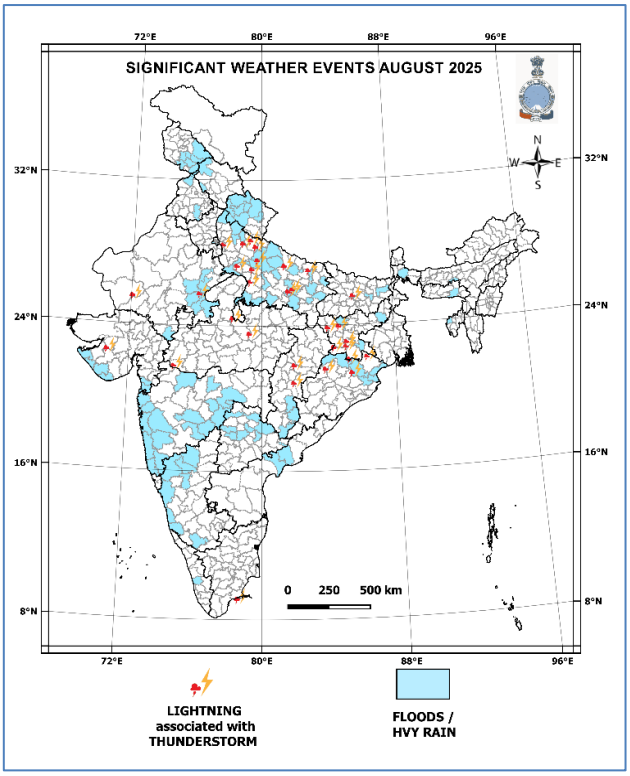

Fig. 11

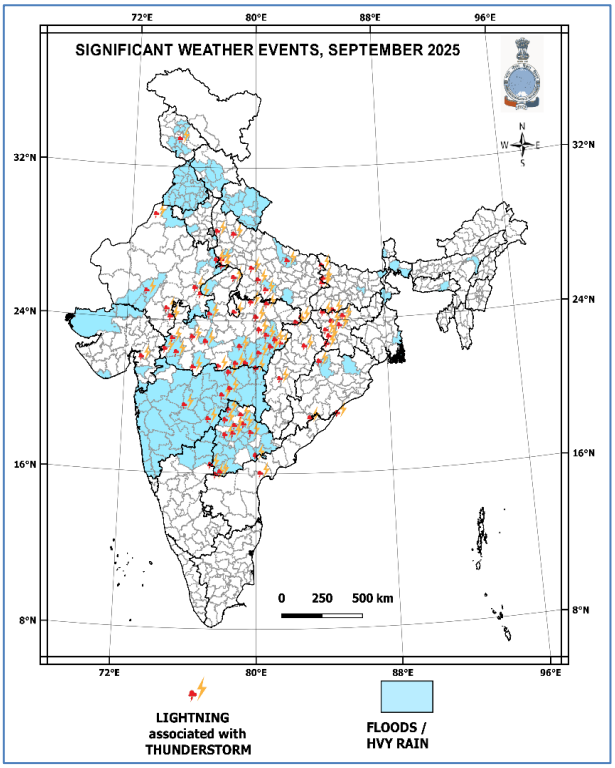

Fig. 12

7.4. September

In September 2025, a total 330 people reportedly died, more than 55 were injured, more than 35 reportedly missing and more than 1950 livestock perished. Heavy Rains, Floods, Cloudbursts and Landslides and Lightning associated with Thunderstorm l claimed 231 and 99 persons death respectively.

Acknowledgment

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Appendix

Definitions of the terms given in *'Italics'*

Rainfall	
Very light	*0.1 to 2.4 mm*
Light	*2.5 to 15.5 mm*
Moderate	*15.6 to 64.4 mm*
Heavy	*64.5 to 115.5 mm*
Very heavy	*115.6 to 204.4 mm*
Extremely Heavy	*≥204.5 mm*
Monthly/Seasonal Rainfall Distribution on sub division scale	
Large Excess	*percentage departure from normal rainfall is + 60% or more.*
Excess	*percentage departure from normal rainfall is + 20% to +59%*
Normal	*percentage departure from normal rainfall is from + 19 % to – 19 %.*
Deficient	*percentage departure from normal rainfall is from – 20 % to – 59%.*
Large Deficient	*percentage departure from normal rainfall is from – 60 % or less.*
No rain	*-100%*
Rainfall distribution on All India scale	

Below Normal	*percentage departure from normal rainfall is from <10 %*
Normal	*percentage departure from normal rainfall is from + 10 % to – 10 %.*
Above Normal	*percentage departure from normal rainfall is from > 10 %*
Monsoon activity	
Active	Average rainfall of a sub–division is more than 1½ to 4 times the normal with minimum 5 cms along the west coast and 3cms elsewhere in at least two stations in the sub–division.
Vigorous	Average rainfall of a sub – division is more than 4 times or more than the normal with minimum 7 cms along the west coast and 5 cms elsewhere in at least two stations in the sub – division.