

# MONTHLY WEATHER REPORT

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## Heavy, thundery rain alternating with bright, dry spells

July began with a cold front moving slowly southwards across Scotland and Northern Ireland, with a ridge building behind. A shallow depression over south-east England was drifting slowly eastwards. On the 2nd, Atlantic fronts moved across western areas, with the leading front lying from Galloway to the Solent by midnight. During the 3rd the fronts crossed all areas, leaving the depression over the Midlands. On the 4th, as the depression cleared, a ridge became the main feature. A weak warm front moved slowly across western Scotland on the 6th, reaching the Borders by late evening. During the 7th the front moved eastwards, leaving a ridge over all areas. During the 8th, two cold fronts crossed Ulster and Scotland, merging as they continued slowly eastwards. Late on the 9th, a system moved from the Western Approaches to be over the Bristol Channel on the 10th, before filling. Further fronts associated with a depression off western Scotland crossed all areas during the 11th, clearing the south-east by midnight. However, the depression remained to the north of Scotland for the next two days.

On the 13th, a system crossed south-west England, becoming virtually stationary across central areas. On the 14th and 15th, the front moved only slightly, as pressure remained high. On the 16th, Atlantic systems moved rapidly northwards across all areas, clearing eastern parts by noon on the 17th. A warm front crossed all parts on the 18th, and by late on the 19th the cold front became slow moving along the south coast. During the 20th, a shallow low moved from France towards Scandinavia, pushing a warm front northwards and eastwards. Pressure rose behind the front giving a ridge over all areas on the 22nd, but as a depression deepened off north-west Scotland, its fronts moved south-eastwards, becoming slow-moving by the 26th, and finally crossing the Channel on the 27th. Pressure rose behind the fronts, and on the 28th an anticyclone was established over Great Britain. This maintained its influence until the 31st, but pressure fell to the west and south.

### Weather

At first, the weather was unsettled, with outbreaks of rain, heavy in some eastern areas. On the 4th there was thunder over south-east England, and on the 10th over central southern England. After early fog in East Anglia on the 11th a band of rain crossed all areas, clearing from the west later. Thunderstorms developed over the Midlands and south-east later, moving to eastern England before midnight. It remained unsettled with showers and outbreaks of rain or drizzle until the 14th, but some places remained dry. The 15th was showery, and thunder occurred over central and eastern England overnight on the 15th/16th. On the 16th there were bright intervals, but during the next few days there was further rain and bright intervals in many parts. The 20th began with rain in the south-west, but by late afternoon thunderstorms from Brittany were affecting many south-eastern parts of England. Flooding occurred in places, including Southampton, Portsmouth and the Isle of Wight, with water 2 feet deep in Sandown. Other places affected were Windsor, and Ashford and Egham,

Surrey. The thunderstorms also activated many fire alarms in these areas. Rain occurred over many areas on the 21st, with thunderstorms in East Anglia and south-east England later. The weather was changeable over the next few days, remaining unsettled until the 27th, with thundery rain over Norfolk and Lincolnshire around noon that day. A short settled period followed, but rain spread to western parts on the 30th and 31st.

### Wind

July was another fairly quiet month. The highest gust recorded at a low-level station was 49 kn at Langdon Bay, Kent on the 13th, and at Greenock Port, Strathclyde on the 23rd. Wind directions were mainly southerly or westerly.

### Temperature

Mean monthly temperatures were generally above normal, although below in a few places. The lowest value was  $-0.7^{\circ}\text{C}$  below normal at Cheltenham, whilst the highest was  $1.5^{\circ}\text{C}$  above normal at Lowestoft, Suffolk. The Central England Temperature of  $16.8^{\circ}\text{C}$  was  $0.7^{\circ}\text{C}$  above the 1961–1990 average, making it the 6th successive month with temperatures above normal. The highest temperature was  $28.9^{\circ}\text{C}$  at Northolt, Greater London on the 31st, whilst the lowest was  $-0.5^{\circ}\text{C}$  at Kindrogan, Tayside Region on the 2nd.

### Rainfall

The general rainfall value for England and Wales of 83 mm represents 113% of average. It was the wettest July for five years in many parts, and a large area of East Anglia and the south-east had totals well in excess of 40 mm on the 20th. The highest average rainfall was at Caldecott, Leicestershire, whose monthly total of 106.8 mm represented 227% of average, whilst the lowest (both 25% of average) were at Fortrose, Highland region, and at Inverness. Among heavy falls were 59 mm at Driby, Humberside on the 1st, 50 mm at Grizedale, Cumbria on the 3rd, and three events

associated with the thunderstorms of the 20th — 54 mm at Herne Bay, Kent, 53 mm at Edenbridge, Kent and 50 mm at Writtle, Essex.

### Sunshine

Daily mean sunshine for England and Wales was 5.32 hours, 91% of average, making it the duller July since 1981. Monthly totals were disappointingly low over much of the country, ranging from 114% of average at Sheffield to just 62% of average at Fort Augustus, Highland Region. The most in a day was 15.2 hours at Folkestone, Kent on the 22nd, and the most in the month was 231 hours, also at Folkestone.

### Fog

Patches formed around Welsh coasts, Humberside, and in parts of the south-east early on the 1st, and over some south-western hills on the 3rd. Further patches affected the west Wales coast on the 4th and 6th, whilst the Western and Northern Isles together with South Wales experienced fog on the 7th and 8th. Patches formed over south-western hills, along the south coast and in parts of Lincolnshire on the 9th, and a few patches occurred over East Anglia and the Midlands on the 11th. Extensive fog affected western and southern hills and coasts throughout the 14th, spreading to a large area of the south-west and the east Midlands that night. Eastern coasts suffered widespread fog on the morning of the 16th, and further patches formed around south-western coasts later. Fog affected much of the Channel coast on the 19th, and at first on the 20th. A few local patches formed over Salisbury Plain early on the 28th.

### Miscellaneous phenomena

A tornado was reported in the vicinity of Minster Lovell, between Burford and Witney, Oxfordshire on the 11th causing damage to buildings and trees. An earthquake centred near Pwllheli, Gwynedd, caused widespread damage to property in north-west Wales on the 29th.

**Table 1 District values**

District	Air temperature °C					Mean 30 cm soil temp °C	Rain- days	Rainfall	Sun- shine
	Highest Max*	Lowest Min*	Max.	Min.	Mean				
			Difference from average					% of average	
0 Scotland N	22.6	2.8	+0.1	+0.4	+0.3	+0.3	+4	83	81
1 Scotland E	24.5	2.0	0.0	+0.2	+0.1	+0.6	0	68	88
2 England E & NE	26.2	3.1	+0.3	+0.8	+0.6	+0.9	0	130	100
3 East Anglia	27.6	6.7	+0.8	+1.4	+1.1	+1.0	+1	157	88
4 Midland Counties	27.8	6.6	0.0	+0.7	+0.3	+0.7	+3	147	91
5 England SE & Central S	28.6	6.7	+0.2	+1.2	+0.7	+0.7	+3	136	86
6 Scotland W	25.6	-0.2	-0.3	+0.2	-0.1	+0.6	+2	102	78
7 England NW & Wales N	25.6	4.8	+0.2	+0.5	+0.4	+0.7	+1	83	97
8 England SW & Wales S	27.5	5.5	+0.1	+1.2	+0.7	+0.8	+5	108	83
N Ireland	22.4	5.0	+0.3	+0.5	+0.4	+0.6	+3	108	94
Scotland	25.6	-0.2	-0.1	+0.3	+0.1	+0.5	+2	87	82
England & Wales	28.6	3.1	+0.3	+1.0	+0.6	+0.8	+2	113	91

\* Highest maximum and lowest minimum of District Value Stations