

September 2022

The averaging period used for the following assessment was 1991-2020.

The first part of September was warm, though it soon became unsettled in most regions. After the 12th it became cooler and more autumnal, and the last few days were particularly cool, with frosts in prone locations. It was generally drier around mid-month, but more showery again later, and the last day of the month was wet for most areas.

The provisional UK mean temperature was 13.4 °C, which is 0.5 °C above the long-term average. It was warmest relative to average in northern areas, with temperatures barely above average in the south. Rainfall was broadly near average overall, rather dry in north-west Scotland and East Anglia, although some parts of south-east England, eastern Scotland and Northern Ireland had well over 150% of the month's average; the UK had 111% of average. It was a sunnier than average month in south-west Scotland, but rather dull over Wales, with an overall sunshine figure of 92% of average.

The UK monthly extremes were as follows: A maximum temperature of 27.7 °C was recorded at Felsham (Suffolk) on the 4th. A minimum temperature of -1.7 °C was recorded at Shap (Cumbria) on the 17th. In the 24 hours commencing 0900 UTC on the 30th, 100.4 mm of rain was recorded at Seathwaite (Cumbria). A wind gust of 65 knots (75 mph) was measured at Needles (Isle of Wight) on the 30th.

Weather impacts

A very unstable cyclonic southerly regime dominated between the 3rd and the 9th, with daily development of heavy thundery downpours complemented by areas of more organised frontal rainfall. The morning of the 4th saw localised flooding across Northern Ireland, especially around Drumquin in County Tyrone. A mudslide and associated flooding were responsible for the closure of the A358 near Taunton on the 5th, whilst overnight thunderstorms caused flooding on the M25 in Surrey with the area around junction 11 worst affected. On the 6th there were reports, including video footage, of a tornado at Bonnyrigg, near Edinburgh, and lightning damaged trackside equipment on the Dundee to Carnoustie rail line, while surface water flooding also occurred in Stonehaven in north-east Scotland. The 7th and 8th saw the focus of flooding primarily across central and eastern Scotland, in particular around Perth, with widespread flooding impacting roads and railways in and around the city. On the 9th a primary school in Darlington was closed as a result of flooding.

After a more settled period, heavy rain over south-east England on the 23rd caused minor surface water flooding issues along the south coast, particularly between Newhaven and Brighton. On the 30th an active frontal system spread strong winds and heavy rain eastwards across much of the UK, with reports including a significant landslide blocking the A87 in the north-west Highlands, whilst several trees were brought down by the winds across Scotland with disruption to some ferry sailings. Short-period intense rainfall across Cumbria created localised flooding issues in the Borrowdale valley, with reports of numerous sheep lost to the swollen rivers.

England diary of highlights

The first couple of days were fine and warm, but it soon became more unsettled and showery. By the middle of the month it was becoming cooler, and although it became drier for a few days, the latter part of the month was much more autumnal with lower temperatures and further rain.

Mean temperatures for the month were provisionally 0.4 °C above the long-term average, with the early warmth nearly offset by cooler weather later. Rainfall was well above average in the far north-east, the south-east and Cornwall, but below average for most of East Anglia, with 110% of average overall. It was slightly duller than average for most places, with 89% of average sunshine.

1st to 12th

The 1st was mostly sunny, with Willington (Derbyshire) recording 12.0 hours of sunshine, but there were isolated showers in the north-east at first, and later in some southern and central parts where cloud increased. Many areas began sunny on the 2nd, with more cloud elsewhere, most notably central counties, with showers in places, tending to drift northwards, and isolated thunderstorms over the far south. Eastern counties began bright on the 3rd, but cloud continued to increase from the west, with showers, and a more organised area of rain, heavy in places, spreading in to affect most areas at some point in the day, giving a longer spell of rain over the north-west later. The 4th began cloudy for most, the far south-west being the exception, with patchy rain in some areas, after heavy rain had cleared the far north-east; sunshine and showers developed mainly over central and south-western parts, the showers in the south-west merging into longer spells of rain by late afternoon, but it was warm with the temperature at Felsham (Suffolk) reaching 27.7 °C. Many areas saw early sunshine on the 5th, but an area of showery precipitation soon moved in from the south, travelling northwards, heavy in some southern parts at first, tending to die out over central parts, though developing further over north-eastern parts later triggering thunderstorms; meanwhile frequent thundery showers moved in from the south in the afternoon, merging into longer spells of heavy rain, this narrow band moving north-eastwards and clearing the far south-west by evening. The 6th began cloudy except in easternmost counties, with isolated showers in south-western, central and north-eastern parts, these becoming more widespread and heavier with thunderstorms in some areas. There was some sunshine on the 7th, with showers initially in some northern and southern counties, becoming more widespread and intense during the afternoon with thunderstorms, and winds were strong in exposed parts of the far south. After a wet night for many, the north continued wet on the 8th with an area of rain feeding in from the east, sometimes heavy but eventually clearing by early evening, with frequent showers in the south at first, occasionally thundery, spreading to most parts through the morning and into the afternoon, though tending to die away by dusk. The 9th started with an area of rain across the far north, and showers elsewhere becoming more widespread and intense during the morning, with thunderstorms developing. The 10th was brighter but with showers persisting over the north, through the Midlands and in eastern and south-eastern counties. Many northern, central and south-eastern areas began foggy on the 11th, the fog not clearing in some spots until early afternoon, then it was brighter for a time but with patchy rain for the south-west, spreading also into central and northern parts from late afternoon. After patchy mist and fog for south-eastern areas, the 12th was mostly cloudy, with showers or longer spells of rain in many places, but it stayed fine in the south-east.

13th to 22nd

After a mild night, with an overnight minimum at Hastings (Kent) of 18.7 °C, it was sunny in the north, Morecambe (Lancashire) recording 12.0 hours of bright sunshine, but cloudier further south, with persistent rain over southern counties. Patchy mist and fog for a few northern and central spots cleared by mid-morning on the 14th, with rain across the south clearing away by mid-afternoon, then becoming sunnier in southern areas. The 15th was mostly cloudy, but dry apart from scattered showers developing over the north-east towards evening. The 16th was brighter, but with showers down the east coast, and a few developing over central southern counties in the afternoon. The 17th started cold, with Shap (Cumbria) falling to -1.7 °C overnight, then it was fine for most, Shoeburyness (Essex) recording 12.0 hours of bright sunshine, but with one or two showers skirting East Anglian coasts. Many areas were cloudy on the 18th, with the best of any sunshine in the south, and patchy light rain or showers for the north-west and through the

Cheshire Gap, and also in eastern coastal counties. Parts of the south-west started sunny on the 19th, otherwise it was a cloudy day, with rain or showers over northern and central parts. Mist and fog patches through some central and southern counties early on the 20th cleared by mid-morning, then it remained rather cloudy, with rain for some northern and central parts during the day. After a sunny morning in the south on the 21st, cloud increased everywhere, with outbreaks of rain or showers in the north in the afternoon. Any fog patches in the south soon cleared on the 22nd, then it was fine, if rather cloudy, for central and southern areas, but cloud increased with rain over the north spreading slowly south and east, reaching the Midlands and south-west by mid-afternoon, the south-east staying dry.

23rd to 30th

Any early fog on the 23rd, this mainly near the Scottish border, soon cleared, leaving sunshine and just isolated showers, but central and south-eastern parts had more cloud, with rain in the far south-east not clearing before evening. The remainder of the month was quite chilly; some areas began bright on the 24th, but with showers near eastern and western coasts, and further showers developing in the Midlands in the afternoon. Sunshine over central and southern parts on the 25th was replaced by cloud spreading from the north, with outbreaks of patchy light rain or drizzle in places. The 26th was a windy day with widespread showers. The 27th began fine in the north but showery further south, with more persistent rain in the south-west from late morning, and showers developing across all parts through the afternoon, locally heavy and prolonged at times especially along the east coast, and generally cool, the maximum at Leek (Staffordshire) only 10.3 °C. Many places saw early sunshine on the 28th, with showers over the south-west and along parts of the east coast, cloud developing everywhere into the afternoon, and an area of occasionally heavy rain spreading into the north-east later. Cloud amounts were variable on the 29th, with showers for the south-west during the morning and some other areas by the afternoon. Some central and southern counties saw fog on the morning of the 30th, this soon clearing as strong winds and rain, occasionally heavy and persistent, spread south and east, becoming widespread by mid-afternoon, lingering over central and southern parts into the evening, but it became brighter with scattered showers in the north, Seathwaite (Cumbria) wettest with 100.4 mm and The Needles (Wight) gusting to 75 mph.

Wales diary of highlights

Much of the month was unsettled, after a fine start, though there were several drier days around mid-month. The first part of the month continued warm, though it steadily grew colder from mid-month onwards.

Mean temperatures for the month were provisionally 0.4 °C above the long-term average. The western side was rather wet, while eastern areas were slightly drier than average, with 102% of average rainfall overall. It was a rather dull month, with 75% of average sunshine.

1st to 13th

The 1st was mainly cloudy to start, though the cloud broke during the morning to give sunny spells over central and northern parts. After a sunny start on the 2nd, cloud increased by the afternoon, with isolated showers breaking out for a time, thundery over the far north-west. Isolated showers at first on the 3rd gave way to more organised areas of rain over far western counties, these soon spreading north-eastwards, heavy in places, but tending to fragment as they moved away, leaving isolated showers by late afternoon. The 4th started very mild, temperatures no lower than 17.5 °C at Cardiff Bute Park; a band of rain lying north to south through central parts soon moved off north-eastwards, with most parts turning warm and sunny for a time, Colwyn Bay (Clwyd) reaching 25.9 °C, but cloud and showers developed during the afternoon, merging into longer spells of rain in the south, becoming heavy at times, with strong winds in exposed parts. After a sunny start on the 5th, cloud increased from the south, with isolated showers developing by early afternoon, these

becoming more frequent and merging into longer spells of heavy rain with thunderstorms, and tracking northwards to affect most parts, clearing the south-west during the evening, Garnswllt Sewage Works (Dyfed) having measured 58.2 mm of rain by then. Early sunshine in southern areas was short-lived, while isolated showers in the north soon cleared away, then showers started to feed in from the south and south-west across most parts, coalescing into longer spells of rain for a time, heavy in places, with occasional thunderstorms, and strong winds in exposed parts of the south. Showers were fewer on the 7th, but did become more frequent and intense for a time during the afternoon with occasional thunderstorms. On the 8th there were frequent showers, turning heavy with occasional thunderstorms through the afternoon, the best of any sunshine in the north-west during the morning. Showers on the 9th were mainly in the south and south-west at first, tending to coalesce for a time in the morning, with longer spells of rain, heavy in places, and isolated thunderstorms during the afternoon. The 10th was rather cloudy, with a few showers over the north in the morning. Local mist and fog cleared by late morning on the 11th, with rain spreading across the country through the day, heaviest and most persistent over the north. The 12th was cloudy with bands of rain and showers crossing the country through the day. Rain persisted across southern fringes on the 13th.

14th to 21st

The 14th was dry, with variable cloud and some sunshine. There was more cloud on the 15th, some of it thick enough at times to produce occasional light patchy rain. Any showers were well scattered on the 16th, with all areas dry by mid-afternoon, and sunshine for many, Dale Fort (Dyfed) sunniest with 11.0 hours. After a chilly start on the 17th, Swyddffynnon (Dyfed) and Llysdinam (Powys) both recording lows of -0.3 °C, it was mostly sunny, with Dale Fort again and Tenby (both Dyfed) both recording 11.0 hours of bright sunshine. Cloud amounts were variable on the 18th, with most cloud and the odd isolated shower in the north. There were showers for the north and east, and occasional light rain or drizzle elsewhere, on the 19th. After a cloudy morning on the 20th with light rain here and there, the cloud broke to allow sunny intervals for most places during the afternoon. The 21st just about stayed dry, gradually brightening up through the afternoon.

22nd to 30th

The 22nd was cloudy, starting dry, with rain soon spreading from the north-west to reach all parts by late afternoon, persisting into the evening. Early-morning fog patches in central parts soon cleared on the 23rd, then there was sunshine, and isolated showers mainly across the north. It was mostly sunny on the 24th, but became cloudier in the afternoon with showers for the north and west. After a fine start, cloud soon increased everywhere on the 25th with occasional patchy light rain or drizzle. The 26th was windy with frequent and occasionally heavy showers. The 27th was chilly, with widespread showers, and more persistent rain affecting the south-west from late morning, Libanus (Powys) struggling to a maximum of only 11.6 °C. Showers were widespread on the 28th, some heavy and prolonged, but more isolated on the 29th. After a dry start on the 30th, wind and rain, occasionally heavy, spread quickly east, covering all areas by midday, then clearing all but the far south-east by evening, winds gusting to 64 mph at Capel Curig (Gwynedd).

Scotland diary of highlights

The first third of the month remained warm, although it soon became unsettled. Any drier spells were quite brief, and from around the 12th onwards temperatures were mostly on the low side for the time of year.

Provisional monthly mean temperatures were 0.6 °C above average, due to the warm start to the month. Rainfall was well above average in parts of the east, slightly lower than average in the north-west, amounting to 109% of average for Scotland as a whole. Sunshine was above average in the south-west, and exactly equal to the long-term average overall.

1st to 9th

After a chilly start the 1st was mostly fine and bright, though Shetland remained largely cloudy, and cloud tended to increase during the afternoon, Strathy East (Sutherland) sunniest with 12.4 hours. Some areas started sunny on the 2nd, but with isolated showers feeding off the North Sea into north-eastern parts at first, then there was rain, heavy at times, in the far north-west, also spreading into parts of the south-west by evening. Sunshine on the 3rd was restricted to the Northern Isles, with showers in some central and southern counties feeding north-westwards, and more persistent precipitation over some western areas, giving longer spells of rain over central and south-western parts for a time, some heavy during the afternoon, with strong winds in exposed places. After a fine start to the 4th for Fair Isle and Shetland, rain, some of it heavy, moved north-eastwards, clearing the mainland by the end of the afternoon, and spreading into the Northern Isles, with brighter weather and the odd shower in some southern and western parts. After another mild night the 5th began sunny for many, though cloudier in the north with a band of rain, heavy at times, moving northwards and clearing the mainland during the afternoon, though rain remained over Shetland, and cloud lingered over parts of the Central Highlands with isolated showers; it was a breezy day, but warm with Urquhart Northwood (Ross & Cromarty) reaching 24.1 °C. On the 6th, showers already over north-western, far northern and north-eastern counties quickly became more widespread, turning heavy and thundery, Balmoral (Aberdeenshire) wettest with 75.6 mm, but some southern parts were brighter later. North-eastern areas started wet on the 7th as an area of rain, heavy at times with isolated thunderstorms, moved north-eastwards and cleared by mid-afternoon; after a fine start in some central areas, showers over the south-west became more widespread and intense with isolated thunderstorms in places. The Western Isles and Shetland had sunshine at first on the 8th, but showers fell in central and north-eastern parts, occasionally heavy with isolated thunderstorms, while an area of rain, heavy at times with isolated thunderstorms, moved into the south and spread north and west through the day, reaching central parts by early evening. After a cloudy and mild start to the 9th, with a minimum at Achnagart (Ross & Cromarty) of 16.5 °C, and scattered showers over the mainland during the morning, it became brighter for a while before a broad area of rain, some heavy, spread into southern and south-eastern counties, this tending to fragment and die away during the afternoon.

10th to 21st

The 10th was fine for many, after local fog cleared from the north, but cloudier in the south with a few showers, Tiree (Argyll) sunniest with 12.4 hours. Fog for parts of the north and east on the 11th cleared to leave fine conditions, but rain reached the south-west around lunchtime, spreading north and east to all but the far north by evening, with another area of rain over the Western Isles by that time. The 12th brought showers, mostly light and scattered, but heavier showers and isolated thunderstorms affected the far north and Western Isles later in the morning. Many areas saw the sun on the 13th, with more cloud and light showers for the west and north. The 14th was mostly cloudy, any patchy mist and fog in the south clearing during the morning, with scattered showers over the north. Showers were more frequent over northern, central and south-eastern parts on the 15th, other areas staying fine. The 16th and 17th saw some further showers in the north and east, with other areas brighter and drier. The 18th was more generally cloudy across the country, with scattered showers affecting many places. Some eastern spots had a cold night, with a minimum of -1.6 °C at Lyth (Caithness), then the 19th was generally cloudy with outbreaks of light rain in many areas. The 20th was cloudy too, with rain or showers affecting some parts through the day. Sunshine in the east on the 21st didn't last, with rain over the west and north in the morning, rain or showers in many areas by the afternoon, and a further area of rain spreading into the west by the evening.

22nd to 30th

Most areas started wet on the 22nd, the rain clearing slowly south and east through the afternoon, turning drier and brighter from the north with a few showers developing over the north and west.

Fog for some places around the Borders soon cleared on the 23rd, then it remained rather cloudy with showers. The 24th was cloudy in the north with scattered showers, sunny in the south for a while, and dry for all parts by evening. The 25th was overcast, any mist and fog for the Borders clearing mid-morning, with occasional outbreaks of rain or drizzle mainly in the west, and more significant rain reaching the north around midday, this spreading steadily south to reach the Borders by evening. The south started sunny on the 26th, but there were frequent and locally heavy showers further north, these becoming widespread through the afternoon, rather cold too with the maximum at Loch Glascarnoch (Ross & Cromarty) only 8.6 °C. Showers on the 27th were few in the south, but frequent, widespread and occasionally heavy and prolonged for the north and east. After a bright start in the south on the 28th, an area of rain spread from the east to affect the east and south later, while the north had a day of scattered showers. The 29th was mainly cloudy, with a few showers across the east and south. The 30th was wet and very windy with widespread, sometimes heavy rain moving quickly east, clearing by mid-afternoon, followed from the west by locally heavy and prolonged showers, Fair Isle (Shetland) windiest with gusts reaching 72 mph.

Northern Ireland diary of highlights

The month began with warm weather, although it quickly became predominantly unsettled. There was a drier spell around mid-month, but with temperatures trending lower, and the last week or so was both chilly and unsettled.

The mean temperature for the month was 0.6 °C above average. Rainfall was above average across the whole of the Province, amounting to 158% of the average monthly total. Sunshine totals amounted to 104% of average.

1st to 11th

Cloud on the 1st tended to break up to allow some warm sunshine, with Ballywatticock (Down) reaching 23.5 °C. The 2nd was overcast, with rain at times through the day, occasionally heavy. It continued dull on the 3rd, with persistent rain throughout, some of it heavy, Trassey (Down) recording a fall of 56.7 mm. Rain soon moved away from the north-east on the 4th, then it became mainly sunny, if breezy, with cloud increasing from the south by the evening. The sun shone again on the 5th, but cloud increased from the south during the afternoon with isolated pockets of rain developing later. After a mild night, temperatures at Killowen (Down) not falling below 15.9 °C, the 6th started with isolated showers, these becoming more widespread and heavier for a time as they spread northwards, with isolated thunderstorms. There was some sunshine on the 7th, but with showers, these becoming more frequent and intense by the afternoon with occasional thunderstorms but dying away towards evening. After early brightness on the 8th, a few showers developed by late morning, turning heavy and thundery in south-western parts for a time, while cloud increased from the east during the afternoon with rain arriving by early evening. The 9th was a day with isolated showers, these mostly dying out later with cloud breaking by late afternoon. Any local mist or fog cleared on the 10th to allow some sunshine, Magilligan (Londonderry) sunniest with 11.6 hours. Rain spread from the south-west during the morning of the 11th, becoming widespread and occasionally heavy by lunchtime, persisting in places until evening but tending to become lighter and patchier by then.

12th to 21st

Rain over central and southern parts cleared away southwards by the afternoon of the 12th, with skies turning brighter. The 13th was cloudy in the morning but brighter by the afternoon. After coastal mist and fog, the 14th was rather cloudy with scattered showers. The 15th was also cloudy with light showers. There was sunshine at times on the 16th, and scattered showers in the morning, Aldergrove (Antrim) sunniest with 11.6 hours. Early mist and fog patches in the west

soon cleared on the 17th, then it was a fine but rather cloudy day. The 18th was cloudy too, with patchy rain or scattered showers, followed by cloud and local outbreaks of light rain or drizzle again on the 19th. Cloud across the country on the 20th was thick enough at times to produce occasional light rain or drizzle. The 21st was similar, with occasional rain or showers, especially later in the north-west.

22nd to 30th

Widespread rain on the 22nd cleared eastwards by early afternoon, followed by sunshine and isolated showers. The 23rd brought some sunshine, but with showers developing. There was more sunshine on the 24th, with just isolated showers for the north and west. After a cold night, Katesbridge (Down) falling to 0.5 °C, the 25th was generally overcast, the cloud thick enough at times to produce patchy light rain or drizzle. The 26th was windy and showery, gusts peaking at 59 mph at Orlock Head (Down). The 27th was generally cloudy and chilly with some showers, Trassey (Down) struggling to only 10.6 °C. Further showers fell during the 28th. After morning sunshine, cloud increased through the afternoon of the 29th with the odd light shower. The 30th was windy, with widespread and occasionally heavy rain during the morning, replaced by brighter conditions with scattered and locally heavy showers in the afternoon.