

## July 2021

The averaging period used for the following assessment was 1981-2010.

The first twelve days of July were mostly unsettled, with spells of heavy rain and showers, especially over England, while other parts of the UK saw less rain and more warmth at times. All areas were drier and much warmer by mid-month, with temperatures exceeding 30 °C on several days in some areas, and unbroken sunshine for many. In Northern Ireland, 31.3 °C was recorded on the 21st at Castlederg, County Tyrone, setting a new record as the highest temperature for any month. The final week was much more unsettled once again, with temperatures back to near average and frequent showery rain.

The provisional UK mean temperature was 16.6 °C, which is 1.5 °C above the 1981-2010 long-term average. It was provisionally the equal fifth warmest July for the UK in a series from 1884. Mean maximum temperatures were up to 3 °C above normal in western Scotland and Northern Ireland, but close to normal in easternmost counties of England, while mean minimum temperatures were between 0.5 and 2 °C above normal generally. Many parts of England and parts of the Scottish Highlands had a wet month, with double the average rainfall amount in numerous places, but Northern Ireland, south-west Scotland and the far north of Scotland had a dry month. The UK overall had 93% of average July rainfall. Sunshine was above average for western areas, especially in Scotland, but just below average for some eastern fringes, and well below for the Northern Isles, with 111% of average overall.

The UK monthly extremes were as follows: A maximum temperature of 32.2 °C was recorded at Heathrow (Greater London) on the 20th. A minimum temperature of -0.1 °C was recorded at Braemar (Aberdeenshire) on the 2nd. In the 24 hours ending at 0900 UTC on the 26th, 87.9 mm of rain fell at Bethersden (Kent). A wind gust of 67 knots (77 mph) was recorded at Needles (Isle of Wight) on the 30th.

### Weather impacts

The first part of the month saw numerous thunderstorm and rain warnings. Some roads and railway lines were flooded in Glasgow and Edinburgh on the 3rd and 4th, and in Northern Ireland the M1 and A4 were flooded. Some roads were also flooded in Manchester, Taunton and Plymouth. On the 6th and 7th, again some roads in Northern Ireland were flooded. In eastern England a pub was struck by lightning in Holbeach, Lincolnshire, and speed restrictions were imposed on the Orwell Bridge. Trains around Hastings were disrupted due to flooded lines and fallen trees, some roads were also blocked by fallen trees, and Channel ferry crossings also suffered delays.

Grampian saw some localised flooding impacts on the 11th. The following day saw flooding in parts of England, for example around Preston with parts of the M6 closed. People were evacuated from their homes in Peterborough, and flooded roads in Norwich impacted transport. The London Fire Brigade received over 1000 calls; numerous properties were flooded, particularly basement flats. Most underground lines and several overground railways were affected by flooding, with disruption to bus services too. Fallen trees blocked roads elsewhere in the south-east, with flooded roads causing disruption as far afield as Dorset.

From mid-month there were several days where temperatures in some areas exceeded 30 °C, for which extreme heat warnings were issued. There were fatalities in water during the hot spell, and ambulance services reported extremely high demand. Northern Ireland Water witnessed extreme pressure on their network, which resulted in a burst main water pipe at their largest treatment

plant. Large numbers of people at coastal spots created extra pressure on police services. Meanwhile, some areas saw impacts from convective weather from the 20th onwards, with localised heavy rain and thunderstorms. Large hail damaged cars in Leicestershire, with flooding in Kibworth. Roads were closed in other parts of Nottinghamshire and Leicestershire. A plane was damaged by hail near Southend Airport, and a lightning strike interrupted electricity supplies in Hertford. Trains were delayed in Kent due to fallen trees and flooded lines, and a house fire due to a lightning strike was reported in Gillingham.

Thunderstorms in the last days of July brought flooding to roads, railway infrastructure and homes across many areas, as well as power outages as properties were struck by lightning. Scotland and south-east England reported the most impacts, with some rescues from stranded vehicles in London. Storm Evert brought strong winds and heavy rain on the 30th, with damaged tents at campsites, power outages, and trees blocking roads in the south. Isle of Wight hovercraft services were cancelled. Widespread flooding in Leicestershire and Derbyshire caused various stranded vehicles, transport disruption and road closures.

## England diary of highlights

**The first twelve days of July were mostly rather unsettled, with temperatures suppressed by day, and frequent falls of rain, many of these heavy and thundery. It became much warmer by mid-month, with settled weather and several days of largely unbroken sunshine, before temperatures returned to near normal for an unsettled final week.**

The mean temperature for July was provisionally 1.2 °C above the 1981-2010 long-term average. Rainfall was over double the average in many localities, notably between Dorset and London and from Cheshire to Humberside; only Norfolk, Suffolk and Cumbria were drier than average, and the overall figure for England was 125% of average. Sunshine was above average in western areas, particularly the north-west, and just below average in East Anglia, with 104% overall.

### 1st to 12th

Fog for parts of the east coast on the 1st was slow to clear in places, then many parts were sunny, though showers broke out in the far south later. Patchy mist and fog in parts of the south cleared by late morning on the 2nd, with scattered showers developing across the north, turning thundery in parts of Cumbria and Teesside by the afternoon, and a few showers also breaking out across the south-west. Most areas had showers or longer spells of rain on the 3rd, turning locally heavy into the afternoon, with thunderstorms breaking out over the south-west, the Midlands and parts of East Anglia. After early fog for the Vale of York and parts of the east coast on the 4th, showers across many areas became progressively heavier and more frequent through the day, with thunderstorms over northern counties during the afternoon. Rain or showers affected northern and eastern areas early on the 5th, clearing away mid-morning, while cloud increased from the south-west by lunchtime with rain moving in and quickly spreading as far as the Midlands by evening. Widespread, locally heavy rain persisted across the north throughout the 6th, with showers for all other parts, a few turning thundery during the afternoon. Most areas started cloudy on the 7th, with showers already affecting certain areas becoming more widespread and frequent, some of them heavy and thundery in places, but the south-east became mainly dry and sunny through the afternoon. It was a fine start across the north on the 8th, with sunshine spreading to all parts during the morning but sparking off some locally heavy showers across the Midlands and the south during the afternoon. The 9th started with sunshine for most, once any early cloud had burned off, but cloudy in the far north and south-west, with patchy rain and drizzle at first, and becoming more showery during the afternoon, especially in central and eastern counties, with a few thunderstorms over East Anglia. Many areas began cloudy on the 10th, with patchy fog in a few places, and rain or drizzle over some parts, as a broader area of precipitation over southern counties moved off eastwards during the morning and early afternoon; as cloud broke up, a few

showers developed across northern parts. Apart from isolated early fog in a few places, the 11th started bright, though western areas were cloudier with patchy rain at first, turning more showery later, with more showers feeding into the south-west during the morning, spreading north and east, with occasional thunderstorms, and coalescing into longer spells of rain, heavy at times, over south-eastern and central parts by evening. Many areas began dull and wet on the 12th, the rain in parts of the south soon dying out, with further precipitation in the north spreading westwards through the day, and showers developing in many parts of the south, some heavy with thunder, and the best of any sunshine in the far south-west.

### **13th to 23rd**

Most areas began cloudy on the 13th with patchy rain or drizzle, and some far eastern counties began misty, though the south-west was brighter, with most other areas brightening up; scattered showers developed during the afternoon, especially over central and southern counties. Any mist and low cloud soon dispersed on the 14th, then it was fine and mostly sunny, and warm in places. The 15th was sunny in some southern and north-western counties, but cloudier elsewhere, with sunny spells developing in the north-east, but cloud lingered in parts of the south-east, while most areas became warm. Most areas were sunny and warm on the 16th, after early low cloud in the south-east and mist and fog patches in the far north had burned off. The 17th was again sunny, and warm or very warm, after early mist and low cloud in East Anglia. The 18th was also sunny and warm or very warm, but cloud increased late in the day with patchy rain for parts of Northumberland. Most areas were sunny on the 19th, with pockets of fog in northern parts and low cloud in the north-east at first with the odd spot of drizzle; it became very warm, locally hot, with some cloud bubbling up during the afternoon giving a few showers in southern counties and isolated thunderstorms for the far south-east. The 20th started largely sunny, but by the afternoon cloud increased with showers developing, occasionally very heavy with thunderstorms, over parts of East Anglia, the East Midlands and the south-east; it was locally hot, with a maximum temperature of 32.2 °C at Heathrow (Greater London). It was a mostly sunny start to the 21st, any mist and fog in central and north-eastern areas clearing by midday, with cloud bubbling up in the afternoon giving a few showers in the south-east and isolated heavy showers and thunderstorms in parts of the north. The 22nd started mostly sunny but with fog or low cloud at first in some eastern counties, and very isolated showers in the south-west, then cloud increased in the afternoon with isolated thundery showers, locally heavy from the north Midlands to Lancashire; it was again very warm and locally hot, but cooler on coasts. Eastern coastal counties started cloudy on the 23rd, with more sunshine elsewhere; showers soon spread into the south-west, and developed more widely along the south coast by late afternoon, with isolated thunderstorms.

### **24th to 31st**

Much of the country was cloudy on the 24th, and cooler, with showers and thunderstorms over the southern third of England. The 25th was still warm, but mostly cloudy, with rain or showers to start in parts of the south, locally heavy; increasing sunny spells into the afternoon led to thunderstorms in the south-east with localised flooding in some areas. Most areas started sunny on the 26th, with mist or low cloud in a few places; it became very warm, but cloud increased by the afternoon with some heavy showers or thunderstorms forming, mainly across parts of the south-west and the West Midlands. The 27th brought some sunny spells but also showers, heavy and thundery in places. The 28th again saw a mixture of sunny spells and showers, with scattered thunderstorms forming by late morning, but with longer spells of sunshine in the afternoon away from the showers. Early sunshine on the 29th in central and southern areas did not last, with rain pushing in from the south-west by noon, while the north-west was cloudy throughout with patchy rain, and the north-east had isolated showers with sunny spells. The 30th was wet and windy, due to the passage of Storm Evert, with showers or longer spells of rain for all, some heavy and thundery, and windiest in the south with a gust to 77 mph at Needles (Isle of Wight). The 31st was generally cloudy with some showers, and thunderstorms developed across the south-east in the afternoon and evening.

## Wales diary of highlights

**The first part of the month was mainly unsettled, and wet and windy at times. Thereafter it became quite hot, with several sunny days but also isolated thunderstorms. The month ended with a return to cool, unsettled weather.**

Mean temperatures for the month were provisionally 1.4 °C above average, making it the ninth warmest July in a series from 1884. It was a rather dry month, especially towards the west, with 86% of average rainfall. Sunshine totals amounted to 114% of the long-term average, with just the north coast having less sunshine than average.

### 1st to 12th

The 1st was generally cloudy, but it brightened up during the afternoon. Much of the 2nd was sunny, with isolated showers in the afternoon, locally heavy over the north. Showers were more widespread during the morning on the 3rd, then more scattered during the afternoon but turning thundery and heavier in places too. The 4th was cloudy with isolated showers, mainly in the south at first but spreading north and getting heavier and more frequent into the afternoon, with scattered thunderstorms towards the north-east. The 5th began fine but with well-scattered showers, with cloud increasing into the afternoon and rain spreading from the south to reach all but the far north by evening. Central and northern areas started wet on the 6th, the rain clearing away during the morning but soon replaced by showers, widespread and locally heavy by the afternoon. The 7th brought some sunshine and showers, with further bright spells and scattered showers on the 8th. The 9th was mainly cloudy, with patchy drizzle at times, becoming generally wetter from the south-west by evening. The 10th started cloudy except in the far west, with isolated showers in the north and patchy rain at first in the south, this moving off eastwards, then a few showers developing over remaining parts during the afternoon. The 11th was overcast, with isolated pockets of rain and drizzle giving way to showers feeding into the south-west, these spreading north and east and coalescing into longer spells of rain, some heavy. The 12th started cloudy with patchy rain, though it was more showery by the afternoon, especially inland, with sunny intervals in the west and south-west, while a more organised area of precipitation moved into the north and north-east from mid-afternoon onwards.

### 13th to 26th

The 13th started mostly sunny, with cloud bubbling up during the afternoon and scattered showers developing in central and south-eastern counties. The 14th was fine and bright, after early mist and fog patches with low cloud along some western coasts, and warm in places, particularly the south-east. The 15th was sunny after any early low cloud had burned off. The 16th was similar, and increasingly warm, with 15.0 hours of sunshine at Aberdaron (Gwynedd). The 17th continued sunny and very warm, again with 15.0 hours of sunshine at Aberdaron. It was sunny and warm on the 18th too, and again on the 19th, with a further 15.0 hours of sunshine at Aberdaron, but some cloud developed in the afternoon, giving an isolated shower in the far south-east. The 20th was sunny and became locally hot, but with cloud building in some inland northern and central parts, and isolated thundery showers mid-afternoon. The 21st continued sunny, and locally hot. It stayed warm overnight, temperatures not dropping below 19.5 °C at Mumbles (West Glamorgan), then the 22nd began sunny, before some cloud appeared in the afternoon, with thundery showers in northern and south-western areas; some places were hot, with a maximum temperature of 31.2 °C at Gogerddan (Dyfed). The 23rd was mostly fine again, but cloudier, with just an isolated heavy shower and thunderstorm over Pembrokeshire. It was rather cloudy on the 24th, with showers for many places, heaviest and most frequent across the south with a few isolated thunderstorms. Most places started cloudy on the 25th, with patchy drizzle in some southern and central areas, but the west was sunnier, this sunshine spreading to other areas on what became a warm afternoon. Some places had a cool start on the 26th, with a minimum of 5.4 °C at St

Harmon (Powys), then a mostly sunny morning; clouds grew readily, giving heavy showers or thunderstorms, mainly across the south, with 52.2 mm of rainfall at Caio (Carmarthenshire).

## **27th to 31st**

The 27th was mostly cloudy with showers, some heavy and thundery. The 28th was cooler with a mixture of sunny spells and showers, and isolated thunderstorms forming by mid-morning, but longer spells of sunshine in the afternoon. The 29th started fine and bright, apart from isolated showers in central areas, with some sunny spells ahead of rain pushing in from the south-west. The 30th was cloudy and breezy, indeed windy in the south, with widespread showers or longer spells of rain, heavy at times, and a maximum gust of 48 mph at Mumbles (West Glamorgan); it was also cool with temperatures not exceeding 14.5 °C at Lake Vyrnwy (Powys). The 31st was generally cloudy with patchy light rain or scattered showers.

## **Scotland diary of highlights**

**The first part of the month was showery and unsettled, though with some warm days to start with. Towards mid-month the weather settled down and became much warmer, though during the last week it became gradually cooler and more unsettled once more.**

The provisional mean temperature for the month was 1.8 °C above the long-term average, and this was the third warmest July in a series from 1884. Maximum temperatures were 2 to 3 °C above average across most central and western parts. It was a dry month over south-western, western and northern areas, but wet in some other areas, Scotland as a whole having 67% of average rainfall. Sunshine was above average except on the east coast and in the Northern Isles, with an overall figure of 125% of average.

## **1st to 12th**

The 1st started chilly and became mainly sunny, after early fog around the Firth of Tay. It was a cold start on the 2nd in northern areas, with an overnight minimum of -0.1 °C at Braemar (Aberdeenshire); an area of rain over the Borders soon moved away eastwards, with showers developing around the Central Belt, and further rain and showers spreading into the north-east during the afternoon. A few scattered showers affected the north first thing on the 3rd, with other areas mainly dry but cloudy, then showers or longer spells of rain moved north into the Borders before midday and continued to spread northwards, turning locally heavy in places during the afternoon. The 4th was showery throughout, the showers getting progressively heavier and more frequent by the afternoon with thunderstorms in many places. The east coast had mist and fog on the 5th, with showers or longer spells of rain elsewhere throughout the day, but it became brighter in the south from late afternoon. Eastern counties were wet all day on the 6th, with other areas cloudy and showery. The 7th started cloudy except in the south-west, with showers already in the north-west spreading south-eastwards, but some sunny spells developed and triggered showers in the south, heavy and thundery in places. Fog in parts of the south on the 8th cleared by mid-morning, then it remained generally cloudy with patchy light rain for many places at times. The 9th was mainly cloudy too, with patchy rain and drizzle in places at first, though turning more showery, especially over central and south-eastern counties. The 10th began fine and bright in the south-east, but otherwise overcast with isolated pockets of rain and drizzle for a time, then scattered showers developed by late morning, coalescing into longer spells in the north and north-east for a time. There was mist and fog along some eastern coasts to start the 11th, with rain in central parts moving northwards and turning more showery; showers elsewhere became more widespread and intense during the afternoon with thunderstorms in north-eastern areas, but western parts brightened up later. The 12th again started cloudy, with patchy rain, and showers soon began to develop over many parts, some heavy with thunderstorms over western counties and the Highlands, but also some warm sunshine later.

## 13th to 26th

A much more settled spell arrived, with the 13th beginning sunny for many places, though mist and low cloud affecting some coasts for a time, and scattered showers developed during the afternoon, especially inland. The 14th was largely fine, after any early mist and low cloud dispersed, but cloud over the north-west spread south and east through the afternoon. The 15th was mostly sunny for the mainland, but cloudier at first in the Northern Isles and for most of the day in the far west, with a few spots of rain in the north-west later. The 16th was fine and warm after any early mist and fog patches burned off, sunniest in the east with 15.5 hours of sunshine at Dunbar (East Lothian), but cloudier and breezy in the far west, north and Northern Isles, with a little drizzle in the Shetland Islands. The 17th was sunny and warm except in the far north, after early fog in parts of the Inner Hebrides, with drizzle or rain in Fair Isle and the Shetland Islands, and windy in some northern parts, with a maximum gust of 47 mph at Kirkwall (Orkney). The 18th was much cloudier, with patchy rain in central and southern parts during the day. Central areas were mainly sunny and warm on the 19th, with more cloud elsewhere, especially the Northern Isles with patchy drizzle at times, but it became sunnier in southern and western parts later. The 20th began sunny in the south, cloudy elsewhere, but sunshine spread to the west and the Highlands; central and southern areas were very warm but some coasts and the Western and Northern Isles were cooler, temperatures not exceeding 12.3 °C at Baltasound (Shetland). After a mild night, temperatures no lower than 16.7 °C at Grangemouth (Stirling), some areas started foggy on the 21st, but it became generally sunny and very warm, though low cloud and mist lingered along some north-east coasts and parts of the Northern Isles, keeping it cooler here. After another mild night, temperatures not dropping below 16.7 °C at Dundrennan (Kirkcudbrightshire), the 22nd saw early fog in central and eastern areas, with low cloud persisting in parts of the east; it was mostly sunny and very warm elsewhere, maximum temperature 29.6 °C at Forrest Lodge (Kirkcudbrightshire), but cooler on eastern coasts, and isolated thunderstorms hit the south-west in the afternoon. Central and eastern areas began cloudy on the 23rd, but the cloud burned back to the coast to leave all areas fine and bright, apart from isolated heavy showers and thunderstorms over the west of Dumfries & Galloway in the afternoon. The 24th started rather cloudy, with patchy fog for central and northern parts, the cloud burning back to the coasts during the morning to leave a sunny warm day. The 25th was mainly sunny and warm, after any patchy fog or low cloud had cleared. The 26th began with more cloud, and localised mist and patchy rain in the far north-east, but central areas had sunshine, this spreading to other areas by afternoon but with heavy thundery showers developing in places, and it was warm again.

## 27th to 31st

The 27th started mostly cloudy, with rain in parts of the west, and showers elsewhere, soon turning heavier with thunderstorms developing in many central and northern areas and persisting into the night, giving 57.9 mm of rainfall at Cawdor Castle (Nairnshire). Heavy rain continued across parts of the north on the 28th, with sunshine and showers elsewhere, and it was cooler. The 29th was mostly cloudy with intermittent rain and sunny spells, but brighter and drier in the south with only a few showers. The 30th was mostly cloudy, with showers for central parts and more persistent rain over the Borders. It remained cloudy with patchy light rain or scattered showers on the 31st.

## Northern Ireland diary of highlights

**The first half of July was rather unsettled, but warm at times. There was then a settled and very warm spell, with record-breaking temperatures, before a chillier and showery end to the month.**

The mean temperature for July was 1.9 °C above the 1981-2010 average, and it was provisionally the third warmest July in a series from 1884. It was a rather dry month, particularly towards the east, with 53% of average rainfall. Most areas were sunnier than average, with an overall figure of 125% of average.

## **1st to 12th**

It was generally cloudy on the 1st, with patchy light rain and drizzle at times, but brightened up late in the afternoon. Cloudy again on the 2nd and 3rd with scattered showers. On the 4th, showers were isolated at first, but progressively heavier and more frequent by the afternoon, with thunderstorms breaking out in many places, and only the far south-east avoiding the worst. After a showery morning on the 5th, the afternoon was drier and brighter. After a cold night in prone spots, with a minimum temperature of 4.0 °C at Katesbridge (County Down), the 6th began fine but cloud soon increased with showers or longer spells of rain reaching the west later in the morning and spreading to all parts during the afternoon. The 7th started bright except in the north-west, with isolated showers developing mid-afternoon and spreading south-eastwards later. The 8th was overcast with patchy light rain and drizzle, and fog along the north-east coast persisting until early afternoon. Eastern parts started sunny on the 9th, with more cloud over central and western parts giving patchy rain and drizzle for a time, and cloud increased in most remaining counties by evening. The 10th started fine but cloudy, with sunny interludes developing over eastern counties, and isolated showers appearing mainly in western parts. The 11th was cloudy, with rain or drizzle mainly moving off northwards, before more showery precipitation moved into some southern and central parts mid-afternoon onwards. The 12th started with isolated showers, and with cloud tending to break up by the afternoon, more showers were triggered in southern parts, with thunder at times, dying away later with further sunny spells.

## **13th to 25th**

The 13th was mostly cloudy, with sunny intervals early on in the far east, and odd spots of rain or drizzle in western parts. Cloudy again to start on the 14th, with a few spots of drizzle, with sunnier skies spreading eastwards making it feel warmer, but cloud increased again from the north-west later. The 15th started cloudy, but became sunny for many, and very warm in places. Mainly sunny and very warm on the 16th after any early low cloud or mist and fog patches had burned off. The 17th was sunny, with 14.8 hours of sunshine at Aldergrove (County Antrim), and very warm or even hot. After fog patches in the east burned off on the 18th, it was largely sunny and warm. It was dry and mostly sunny on the 19th, with low cloud in the north burning off during the morning, and very warm except on northern coasts. The 20th was sunny too, after any patchy fog dissipated first thing, but with very isolated afternoon showers in the far south-west, and again it was very warm except on the north coast. The 21st began sunny but cloud bubbled up in the afternoon with heavy showers and some thunderstorms developing in northern, western and central areas, and it was locally hot with a temperature of 31.3 °C recorded at Castlederg (County Tyrone), a new Northern Ireland record. After a mostly sunny start on the 22nd, cloud increased by the afternoon, but it was locally hot again, followed by a warm night, temperatures not dropping below 18.1 °C at Banagher Caugh Hill (County Londonderry). The 23rd and 24th were largely sunny, but it was less hot on the 24th. After a sunny start on the 25th, it was warm but cloud increased in the afternoon with very isolated showers in the south.

## **26th to 31st**

The last few days were cooler and unsettled. Isolated showers at first on the 26th gave way to a band of rain which slowly pushed in from the south-west from mid-afternoon. A band of heavy and persistent rain pushed westwards during the 27th, with a few isolated thunderstorms by the afternoon, and 42.0 mm of rainfall at Belfast Newforge. The 28th brought showers, heavy and thundery in places, and sunny spells. The 29th was cloudy and cool, with light rain at times, but became brighter in the afternoon with sunny spells, and winds increased with a maximum gust of 39 mph at Orlock Head (County Down). The 30th was cloudy and showery. It stayed broadly cloudy and cool on the 31st, temperatures not exceeding 13.1 °C at Ballypatrick Forest (County Antrim), with light rain or scattered showers.