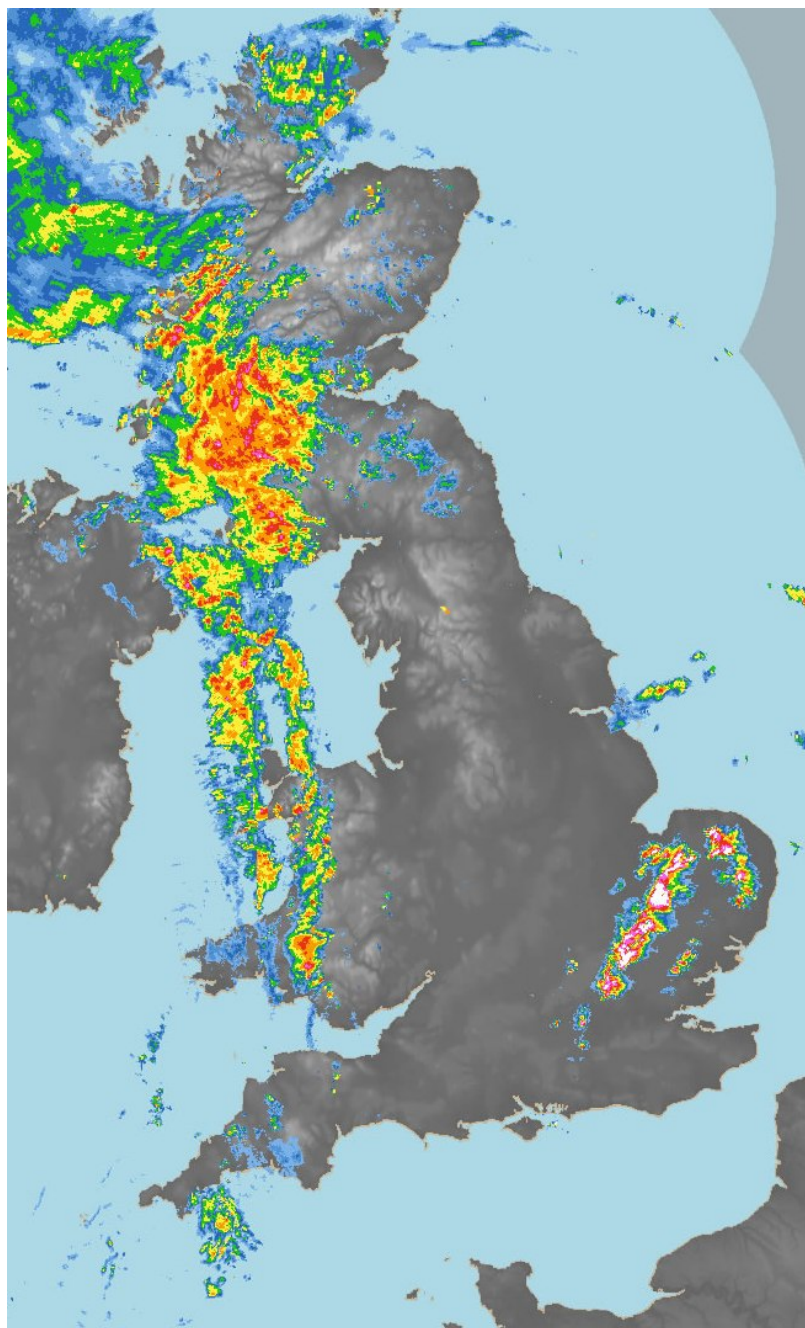


July 2015

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

The rain-radar image shows a line of intense thunderstorms stretching through Hertfordshire, Cambridgeshire and Norfolk overnight 16 to 17 July. Intense downpours resulted in some localized flash-flooding. Rothamsted, Hertfordshire recorded 38.2 mm in the hour to 0100 GMT 17 July.



UK overview

At the start of July there was very hot air over the UK, particularly England, with a humid southerly flow from the continent. This gave record-breaking July temperatures in parts of the south-east, and the highest temperature anywhere in the UK since August 2003. After this, however, the month was typified by a westerly Atlantic weather type, bringing cool and rather changeable weather generally, with rain or showers for much of the time, and only a few dry and warm days. There were some cold nights, especially in the last few days, and overall it was rather a cool month despite the hot start.

The UK mean temperature was 14.4 °C, which is 0.7 °C below the 1981-2010 long-term average. It was coldest relative to average in the west and north. Rainfall was above average over most of the country, with parts of Scotland, East Anglia and elsewhere approaching double the normal rainfall amount; near-normal totals were restricted to parts of the Midlands and south-east England. The overall UK rainfall total was 138% of average. Sunshine amounts were unremarkable generally, with a UK total amounting to 93% of average.

The UK monthly extremes were as follows: A maximum temperature of 36.7 °C was recorded at Heathrow (Greater London) on the 1st, a new UK record for July. A minimum temperature of -0.6 °C was recorded at Katesbridge (County Down) on the 15th. In the 24 hours ending at 0900 GMT on the 17th, 93.1 mm of rain fell at Blackwater Reservoir (Angus). A wind gust of 60 mph was recorded at Needles (Isle of Wight) on the 26th.

Weather impacts

July began with heat-health alerts in force for parts of England. Any impacts were relatively limited, although in East Anglia the hot weather may have contributed to a large fire which affected Thetford Forest.

The heat was followed by thunderstorms which affected parts of northern England and Scotland, and lightning strikes resulted in the loss of power to several thousand homes. Large hail-stones were reported to have damaged around 1,700 cars. On 5 July two people were killed and another two hospitalised by separate lightning strikes in the Brecon Beacons in south Wales.

A vigorous low pressure system on 16 to 18 July brought heavy rain and strong winds to much of Scotland. There was significant flooding and consequent disruption on the 17th, especially in Perthshire with the town of Alyth particularly badly affected. Thunderstorms also caused some flash flooding in Hertfordshire, Cambridgeshire and Norfolk with a major incident declared at Addenbrooke's Hospital, Cambridge due to flooding.

A low pressure system passing southern England on the 24th brought strong winds and heavy rain for south-east England with 20 to 40 mm falling quite widely. There were severe delays on the London Underground with the Circle and Hammersmith & City lines closed due to flooding. There was further rain and strong winds affecting south Wales and south-west England on the 26th to 27th, with reported road closures due to fallen trees.

The ongoing cold, wet weather in northern Scotland led to increasing concerns from the farming industry about poor growing conditions for grass for livestock.

England diary of highlights

At the start of the month, most of England was hot with thundery outbreaks and southerly winds. However, the heat was short-lived and the rest of the month was largely dominated by low pressure and mainly westerly winds, which brought cool unsettled weather and rain at frequent intervals, and it was often cloudy, especially in the west. There were occasional short-lived fine spells, mainly in the south. It was brighter with cold nights at the end of the month.

Despite record-breaking heat on the 1st, the mean temperature for the month overall was 0.5 °C below the long-term average. Rainfall was 127% of average but some locations in south-west England, East Anglia and north-east England approached double the normal amount. There were 96% of average hours of bright sunshine.

1st to 5th:

The 1st was very hot, sunny and mainly dry with temperatures reaching a new UK July maximum of 36.7 °C at Heathrow (Greater London), although some heavy showers and thunderstorms broke out in the south-west and the north-east. The 2nd was cooler, and a weakening band of cloud and rain spread northwards during the day, but it was still warm with temperatures reaching the mid-20s in most areas. It was another dry, sunny and hot day on the 3rd although thunderstorms broke out in central and western areas later in the evening. An area of heavy rain and thunderstorms moved north overnight to leave a mainly dry and hot day on the 4th with temperatures reaching 28 °C in parts of the south-east. An area of rain and sporadic thunder slowly cleared the south-east during the morning of the 5th and another band of thunderstorms spread into western and central areas later in the morning, with thunderstorms affecting northern England during the afternoon.

6th to 18th:

After a bright start on the 6th, an area of patchy rain spread from the west during the morning, becoming more fragmented as it spread east. A day of sunshine and showers followed on the 7th with thunderstorms in Lancashire, Humberside and Cleveland. A cold front swept down the country on the 8th bringing patchy rain during the morning, leaving an afternoon of sunshine and scattered showers, the showers mainly in the east. High pressure built again for the 9th and after a chilly start, a dry and bright day followed. The 10th was mainly dry and bright although it clouded over in the afternoon with rain reaching the north-west by evening. After a dry and bright start on the 11th, rain spread in to northern and eastern areas during the afternoon. An area of rain spread along the south coast on the morning on the 12th, clearing during the afternoon and leaving scattered showers for many areas. The 13th was overcast and wet but the rain slowly cleared eastwards during the afternoon. The 14th was a day of sunshine and showers, with an area of more persistent rain reaching the south-west in the afternoon. The 15th was generally dry and bright after scattered showers cleared eastern coastal areas in the morning. A ridge of high pressure on the 16th made for a dry and sunny day although isolated showers broke out in central areas later. Some thunderstorms overnight saw Rothamsted (Hertfordshire) record 38 mm in one hour. The 17th was mainly dry and bright apart from some isolated showers mainly in the west. It was mainly dry with sunny spells on the 18th although rain spread into the far north and south later in the afternoon.

19th to 25th:

Overnight rain cleared the east early on the 19th to leave a mainly dry but cloudy day with the best of any sunny spells in the south-east where temperature reached the mid-20s. Rain spread from the west during the 20th, becoming more patchy as it moved east. There was a mixture of sunshine and light scattered showers on the 21st and it was warm in the south-east where Writtle (Essex) reached 27 °C. An area of patchy rain spread into central areas during the morning of the 22nd and spread slowly south-east during the afternoon. The 23rd was mainly dry and bright apart from isolated showers in the west although heavier rain moved into the south-west during the evening. The 24th was very wet for much of the day in the southern half of the country with 40 mm of rain for some areas although the northern half was generally bright with only some scattered showers. A much drier and brighter day followed on the 25th with only isolated showers for northern and eastern areas.

26th to 31st:

A vigorous area of low pressure for the time of year swept in from the west during the 26th, bringing rain to all areas and gusts to 40 mph to exposed western and southern coastal areas. Further rain affected northern areas for much of the day on the 27th, making slow progress south during the afternoon. It was mainly dull on

the 28th with rain in the north and showers in the east, the best of any bright weather in the west and feeling cooler. A day of sunshine and scattered showers followed on the 29th, feeling cool in a northerly breeze. The 30th was mainly dry and bright in the west but scattered showers developed during the day in some eastern and central areas. A small number of stations saw record low July minima early on the 31st; after a dry and bright start it felt warmer for most, but showers edged into the north-west in the afternoon.

Wales diary of highlights

The month started quite hot, but was otherwise mostly cool, cloudy and changeable with mainly westerly winds, and only short-lived fine spells.

The mean temperature was 0.8 °C below the long-term average. It was wettest in the west with 123% of average rainfall for Wales overall. There were 94% of average hours of bright sunshine.

1st to 4th:

The 1st was the hottest day of the year so far with 29.2 °C recorded at Usk (Monmouthshire). There were showers, at times merging into longer spells of rain, particularly in the west. Rain moved into the south from mid-morning on the 2nd and spread north through the afternoon, clearing by evening. It was dry and warm on the 3rd with bright or sunny intervals, and also mainly dry on the 4th with only a few isolated showers.

5th to 11th:

After a mainly dry start on the 5th a band of rain spread from the west across the country, clearing into England later. Rain in the west spread to all areas on the 6th with some heavy downpours at times, especially in the north with 28.0 mm recorded at Capel Curig (Gwynedd). There were showers for most areas on the 7th, merging into longer spells of rain during the afternoon, especially in the north. There was some patchy rain at first on the 8th but it became dry from late morning onwards. It was a dry day for all areas on the 9th. It was mostly dry again on the 10th until rain arrived in most areas during the evening. The 11th was another generally dry day apart from some rain in the north later in the afternoon.

12th to 22nd:

Patchy rain and scattered showers affected the south at first on the 12th, gradually clearing southwards later. It was wet on the morning of the 13th but mostly dry by the afternoon. Rain spread to most areas during the morning on the 14th but by late afternoon this was mainly confined to the south. There was some patchy rain early in the morning of the 15th in the south-east but then it was dry for the rest of the day with bright or sunny intervals. Most areas had a dry day on the 16th apart from some rain in the western fringes during the afternoon. The 17th was mainly dry with sunshine apart from some showers through the early morning. Mainly sunny and dry weather continued on the 18th, but with cloud increasing in the evening. The 19th started with rain moving in from the west in the early hours which cleared east by mid-morning leaving a generally dry day. The 20th saw periods of rain or showers at times and then drier, sunnier spells. There were some showers or patchy light rain at times on the 21st with mainly cloudy skies. Frequent showers in the early hours and morning of the 22nd became more isolated through the day with some sunny spells developing.

23rd to 31st:

It was mainly cloudy on the 23rd with some showers, particularly in the south, and rain moved into the south coast by late evening. It was dull and cool on the 24th with rain at times for most of the day. The 25th was generally dry with long spells of sunshine. Another band of rain moved through in the morning of the 26th. Showers followed in behind accompanied by moderate to strong winds. The 27th was cloudy with showers or longer spells of rain in the south, and heavier showers developed in the evening further north. There was a mix of sunshine and showers on the 28th with some heavier bursts in the late afternoon and evening. The 29th had showers continuing with sunny spells. Early isolated showers on the 30th died out, with sunny spells appearing

by late morning and through the afternoon. It was dry with some sunshine on the 31st apart from the odd isolated shower in the north-west.

Scotland diary of highlights

The month began hot and thundery with southerly winds. However, after the first week, low pressure dominated with frequent westerly winds bringing rain at regular intervals and there were only brief fine spells. In contrast to the hot start, it was generally cool, particularly in the west, and cloudy except in parts of the north-east.

The mean temperature was 1.0 °C below the long-term average and for western Scotland it was the coolest July since 1993. Scotland received 152% of average rainfall; western and eastern Scotland recorded their equal fifth- and sixth- wettest Julys respectively in series from 1910 and some central and eastern locations received over 200% of average. There were 88% of average hours of bright sunshine.

1st to 7th:

After a dry start on the 1st, scattered showers developed through the day with heavy downpours and thunder for some areas, but it was also the warmest day of the year so far with 29.4 °C recorded at Kinloss (Moray). The 2nd started dry for most but thundery rain moved into the south later before spreading north. It was dry and warm on the 3rd with bright or sunny intervals. Thunderstorms developed in the south overnight and during the morning on the 4th with rain, heavy at times. The rain moved north and cleared during the afternoon and became more showery, with 35.8 mm recorded at Inverbervie (Aberdeenshire). The 5th started dry, but a band of thundery showers moved north across the country through the day. After a generally dry start on the 6th, rain spread from the south-west across most areas during the morning and afternoon. There were heavy showers or rain for most areas on the 7th, especially the north with thunderstorms causing flash floods in the Aberdeen area (38.0 mm recorded at Dyce).

8th to 14th:

The 8th started wet in the south; the rain cleared during the morning but the rest of the day was unsettled with frequent showers, with only some western areas staying mostly dry. It was dry in the south on the 9th with some showers in the north but an area of rain moved into the west later in the afternoon. Rain in the north and east at first on the 10th cleared during the morning, and it became dry for a time before more rain pushed into the west by early evening. It was dry in the south on the 11th with scattered showers further north, but a weather system brought more rain to the west later. The 12th was cloudy with some scattered showers but some areas stayed mainly dry. Most areas were wet on the 13th but the rain was lighter and patchy in the far north and Northern Isles. Patchy rain in the north and west on the 14th became mainly confined to the north-east by the afternoon.

15th to 21st:

There was rain or showers for the north and north-east on the 15th, but it stayed mainly dry in the south. Generally dry on the 16th, but heavy rain pushed in from the west during the evening and spread across the country overnight, becoming heavy with thunder into the 17th and causing disruption with serious flooding in some areas especially Perthshire. 34.2 mm was recorded overnight at Strathallan (Perthshire) but the rain cleared and the rest of the day was showery with fresh to strong winds. Strong winds continued on the 18th with some rain in the Western Highlands and showers in the north but otherwise there were sunny spells. Rain on the 19th moved east through the morning leaving some showers. There were frequent showers on the 20th, particularly in the north and west, with little sunshine in between. It remained unsettled on the 21st with a narrow band of rain in the south and scattered showers in the north.

22nd to 31st:

There were scattered blustery showers on the 22nd for most areas, especially during the afternoon. Most areas had blustery showers on the 23rd, merging into longer spells of rain in the north-west, but the north-east was mainly dry. Scattered showers in the west on the morning of the 24th spread to the east during the afternoon, and there were scattered blustery showers for most areas again on the 25th. It was generally dry at first on the 26th, but rain spread into the west and then across the rest of the country later in the day with the exception of the far north. Most areas had rain on the 27th except the north-east, Caithness and the Northern Isles. The rain was heavy at times with 42.6 mm recorded at Cassley (Sutherland). There was rain again for most areas on the 28th but it was lighter and patchier in the far north. After a dry start for most areas on the 29th, showers became more widespread and heavier through the day. Most areas were dry on the 30th with only a few light showers in the north and some rain in the north-west later. Rain in the west on the morning of the 31st spread across the rest of the country through the afternoon and evening.

Northern Ireland diary of highlights

After a warm start, the month was generally dull, cool and wet with westerly winds, particularly in the west, though there were brief drier spells.

Overall it was a cool, dull, wet month. The mean temperature was 1.3 °C below the long-term average, with 148% of average rainfall and only 80% of average hours of bright sunshine.

1st to 4th:

The 1st and 2nd were mainly fine and very warm with some well scattered showers, and the temperature reached 24.8 °C at Aldergrove (County Antrim) on the 1st. The 3rd was largely dry and sunny. Heavy overnight rain cleared early on the 4th to leave a day of sunshine and showers.

5th to 15th:

The 5th started dry and bright but scattered heavy showers, accompanied by hail and thunder, developed mainly in northern areas in the afternoon; 30.6 mm was recorded at Ballypatrick Forest (County Antrim). On the 6th, there were showers or longer spells of rain for most areas, heavy at times. Most places had further rain or showers on the 7th, heavy in the afternoon. It was cooler in northerly winds with just a few scattered showers on the 8th. It was cold overnight with a minimum temperature of 0.3 °C recorded at Katesbridge (County Down) early on the 9th, with a mainly dry day before rain arrived in the evening. After a bright start on the 10th, rain spread into western areas during the afternoon and slowly moved east. There were some light, scattered showers during the morning of the 11th with more general rain spreading from the west during the afternoon. The 12th was a day of sunshine and showers. Overnight rain cleared during the morning of the 13th to leave a day of sunshine and scattered showers. It was mainly dry and bright on the 14th and 15th, but cold overnight with Katesbridge recording a minimum temperature of -0.6 °C.

16th to 31st:

The 16th was fine until showers arrived in late afternoon, followed by more persistent and heavy rain moving north-east through the evening with 26.4 mm recorded at Helens Bay (County Down). After a dry morning on the 17th, rain, heavy in places, accompanied by gale-force westerly winds, moved in later. There were scattered blustery showers on the 18th with rain later, becoming heavy and prolonged through the evening. Rain cleared overnight, leaving a day of sunshine and scattered showers for the 19th. Overnight rain became patchy by morning on the 20th, but showers followed later. The 21st was cloudy with showers and outbreaks of rain although the north escaped these. The 22nd to 25th continued to provide a mix of rather cloudy, showery weather with sunshine at times. The 26th was dull and wet, with 26.6 mm of rainfall recorded at Killowen (County Down). After patchy light rain at first on the 27th, more general rain spread in from the south-west during the afternoon. Rain continued at first on the 28th, heavy in the north, but gave way to showers by the afternoon. There were further showers on the 29th, some heavy, but these died out during the afternoon.

The 30th was mainly dry with some sunny intervals. It was mainly dry at first on the 31st but rain spread north-eastwards during the afternoon.

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