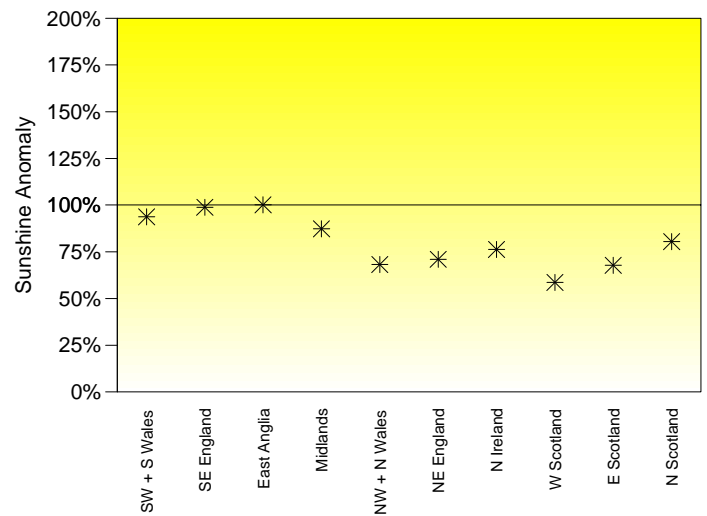
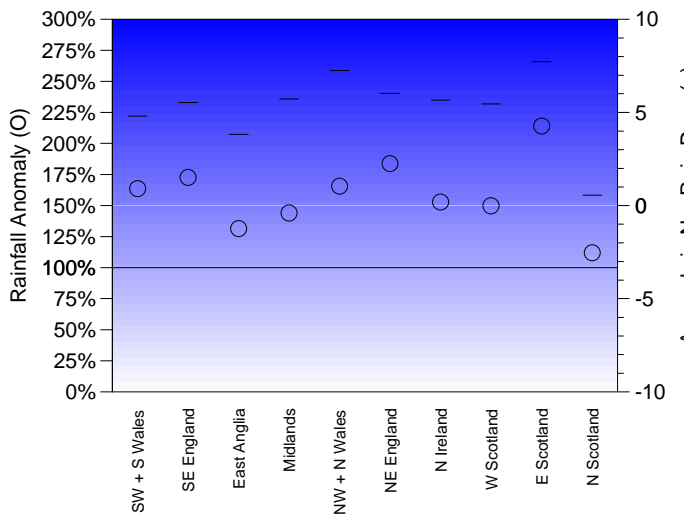


Extremes for January 2016	
Hottest:	16.2°C Achnagart, Highland, 24th
Coldest:	-10.2°C Loch Glascarnoch, Highland, 17th
Most Rain:	73.6mm Capel Curig SAWS, Gwynedd, 26th
Most Sun:	7.7hrs Yeovilton, Somerset, 20th
Windiest:	105mph Baltasound SAWS, Shetland, 29th
Warmest:	9.5°C Scilly St. Mary's SAWS, Cornwall
Coolest:	1.9°C Braemar No 2, Grampian
Wettest:	366.4mm Cluanie Inn No 3, Ross & Cromarty
Driest:	53.6mm Sutton Bonington, Nottinghamshire
Sunniest:	62.5hrs Jersey St Helier, Channel Islands
Dullest:	11.5hrs Loch Glascarnoch, Highland



January is typically both cold and unsettled. The sun remains low and can impart little warmth and polar air is rarely far away. January is most likely to be the coldest month (about 4 years in 10), and is invariably the windiest - with depressions racing along the stark temperature gradient that exists between the still relatively warm Atlantic and the frigid Arctic. Storms are most common during the first fortnight and around month end.

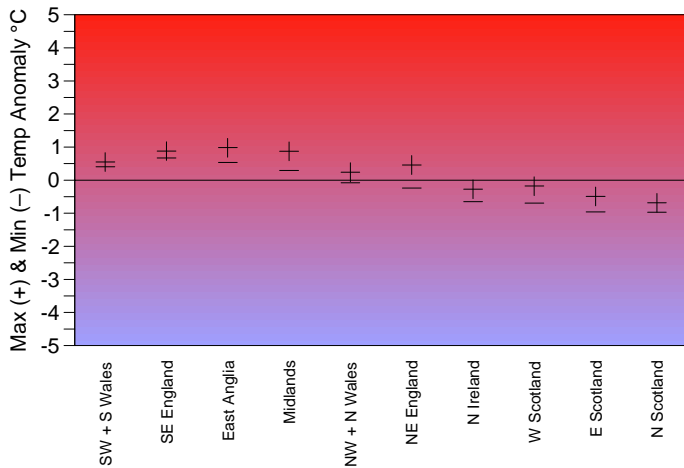
January started mild, wet and windy with frequent active depressions and fronts. The first week saw widespread rain that was persistent and heavy in north east Scotland and led to flooding across Aberdeenshire. Northern Ireland was also affected by flooding and on the 6th/7th the water of Lough Neagh reached a 30 year high. England was a little less wet, but fog stretching from the Thames Valley to Yorkshire marred the 5th and 6th. The 9th was stormy along the south coast and Needles lighthouse (Isle of Wight) recorded a gust of 85mph. It remained very unsettled until the 13th - when the air flow turned northerly and showers became more wintry over Wales, Scotland and Northern Ireland. This heralded a cold but often bright week that saw temperatures at night plummet and significant snowfall across Scotland and the higher ground of England and Wales. Noteworthy was 16cm of lying snow at Spadeadam, Cumbria on the 14th. The 15th was a cool - but glorious clear day, the 16th chillier and rather less sunny. Overnight 16th-17th snow fell across south-western Scotland, northern England - and as far south as the Home counties, but whilst many awoke to a dusting - it had mostly melted by later that day. The nights of 19th-21st saw some very sharp frosts across northern Scotland e.g. -12.4°C (9.7°F) at Kinbrace, Sutherland on the 19th and southern England e.g. -8.8°C (16.2°F) at Benson, Oxfordshire on the 20th. The final 10 days were mild - often remarkably so. 16.5°C (61.7°F) was recorded at Achnagart (Highland) on the 24th and on the 25th the temperature at Magilligan, County Londonderry, Northern Ireland did not fall below 13.1°C (55.6°F) all day and night - a new UK record for January. The remnants of Storm 'Jonas' from the USA hit the UK on the 26th and brought very wet and windy weather nationwide with counties neighbouring the Irish Sea worst affected. Capel Curig (Conwy) recorded 74.6mm of rain and gusts of 83mph. On the 28th, Storm 'Gertrude' struck Northern Ireland, Wales and Scotland. Lerwick (Shetland) recorded a gust of 105mph in the early hours of the 29th. Gales continued in the Northern Isles on the 30th and 6cm of snow fall at Aviemore (Inverness-shire).

For the UK as a whole, January 2016 was the fourth wettest on record. Parts of the north and east, received double their normal rainfall - and for eastern Scotland it was the 2nd wettest calendar month ever! (after December 2015!) Not surprisingly, these places were correspondingly dull, whilst in the south sunshine was close to normal. It was a mild month for England and Wales, but temperatures were closer to the average for Northern Ireland and Scotland.

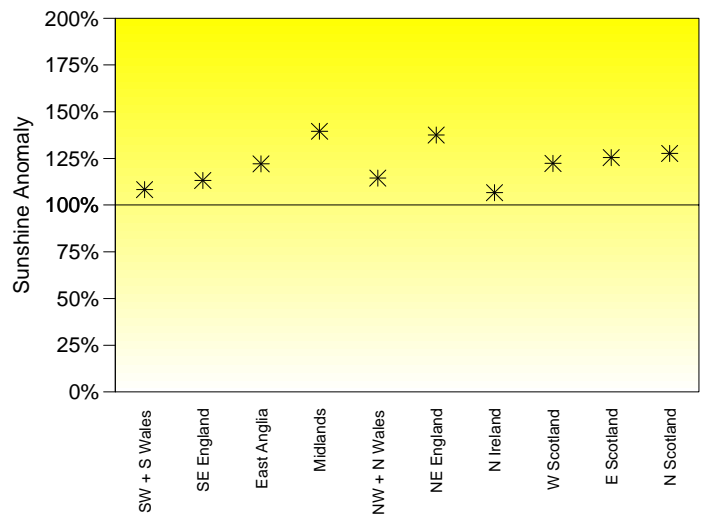
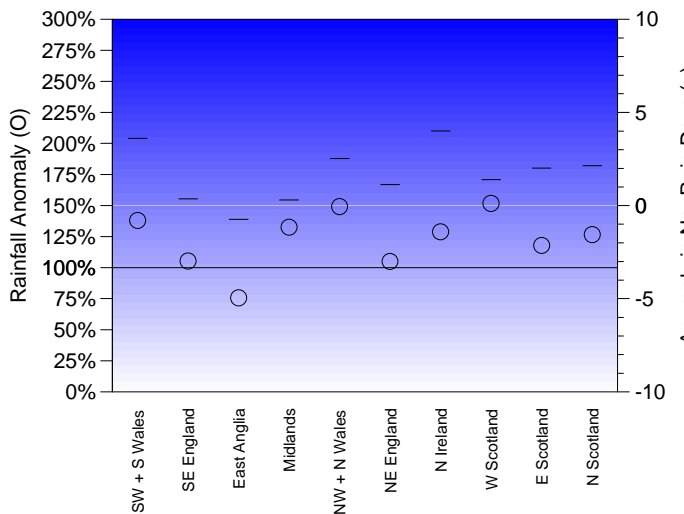
Winter finally arrived with a vengeance across Scandinavia and eastern Europe during January. Naimakka in northern Sweden recorded a numbing -43°C (-45°F) on the 7th - and in Finland, the western province of Merikarvia received 73cm of snow on the 9th - a new Finnish 24 hour record. In Poland, the capital Warsaw recorded -18°C (0°F) on the 3rd - a remarkable contrast to the 14°C (57°F) experienced barely a week before! A European 'ice storm' on the 23rd turned large parts of Germany into a no go area with extensive and deadly glaze on the roads - and hundreds of accidents ensued. Turkey also grappled with Arctic weather and heavy snowfall that led to the cancellation of flights and ferries in Istanbul, and isolated many provinces in the east of the country. On the 26th, 2500 roads were blocked by snow e.g. 76cm in Ankara and 48cm in Erzurum. Temperatures plunged to -27°C (-17°F) in Ardahan's Göle.

A massive snowstorm swept across eastern USA 22nd-23rd. The heaviest fall (108cm) occurred in Glengary, West Virginia. New York's Central Park received 69cm, the second-biggest fall since 1869. It was the fourth most powerful snowstorm to hit the Northeast in the past 66 years, affecting 103 million people across 434,000 square miles in 26 states. A blizzard swept Russia's Pacific coast around Vladivostok 19th-20th January and deposited >50cm of snow in the city with drifts several feet deep. The Khasan district received three months worth of snow in 48 hours and temperatures plunged to -18°C (0°F) with wind gusts of 60mph.

Snow fell in Kuwait on the 28th for the first time in the country's history, while on the other side of the Asian continent there was the equally unusual spectacle of sleet in Hong Kong on the 24th. The elevated Hong Kong Observatory recorded -5.7°C (22°F), amplified by a strong wind chill. Meanwhile, sweltering heat continued in the 'southern' summer. Temperatures reached 36°C (97°F) in Buenos Aires, Argentina on the 22nd and soaring electricity demand left 443,000 residents without power. In southern Africa, Botswana experienced record heat 6th-10th. In the west of the country, Tsaabong and Werda recorded highs of 43.5°C (110°F) on the 6th, while on the 7th, 44°C (111°F) at Maun represented a new national maximum temperature record.



Extremes for February 2016		
Hottest:	16.0°C	Exeter, Devon, 21st
Coldest:	-10.3°C	Loch Glascarnoch, Highland, 28th
Most Rain:	97.4mm	Kinlochewe, Highland, 2nd
Most Sun:	9.8hrs	Morecambe, Lancashire, 23rd
Windiest:	90mph	South Uist Range, Western Isles, 1st
Warmest:	8.4°C	Scilly St. Mary's SAWS, Cornwall
Coolest:	1.6°C	Carterhouse, Borders
Wettest:	350.2mm	Cluanie Inn No 3, Ross & Cromarty
Driest:	16.4mm	Cavendish, Suffolk
Sunniest:	109.0hrs	Wellesborne, Warwickshire
Dullest:	59.7hrs	Manston, Kent



February is typically the driest month of the year for the UK and about 4 years in 10 the coldest. Sea temperatures reach their nadir at this time of year - and the sun remains too low to impart much heat - despite the lengthening days. The weather tends to become settled from mid month, and the latter half is most typically the driest fortnight of the year for eastern and central England.

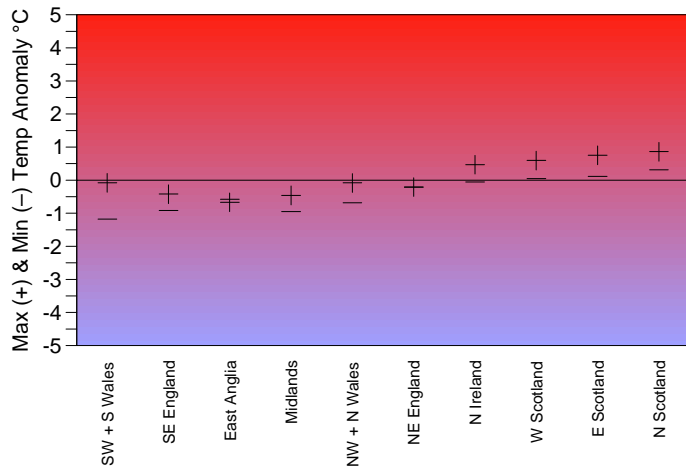
February began mild but unsettled. Storm 'Henry' on the 1st & 2nd spawned monster waves off the Western Isles and hurricane force winds across the Cairngorms. At low level, gusts peaked at 90mph over South Uist (Western Isles) where schools were closed and 13,000 homes left without power. Structural damage was reported in Glasgow, East Kilbride and Dundee, whilst further south, the Forth and Tay Road Bridges were closed to traffic. Cassley (Sutherland) recorded 83.6mm of rain in the 24 hours ending 0900 on the 2nd. The 6th was a very wet day across the south west and South Wales and flooding affected the fishing village of Portreath, Cornwall, the following day. On the 7th and 8th coasts of South West England and Wales bore the brunt of 'Imogen' - the most severe storm to affect southern England since February 2014. Sea conditions in the south west approaches reached 'phenomenal' (the highest classification), many ferries were cancelled and a wave 19.1m high was recorded off the coast of St Ives. In Wales, 5000 homes lost power, the Severn Bridge was closed for a time, and a sports centre in Blaenau Gwent was evacuated after heavy rain led its roof to collapse. Needles Old Battery (Isle of Wight) recorded a highest gust of 96mph on the 7th and Pembrey Sands (Carmarthenshire) 83mph on the 8th. It stayed unsettled, although less windy, throughout the second week, before turning colder around the 14th, Valentines Day. -14.1°C just before dawn at Braemar (Aberdeenshire) made it the chilliest night of the winter - and indeed of any night in the UK since 11th February 2012. It heralded a period of notably colder weather with snow in the north and in the east e.g. 10cm at Aviemore (Inverness-shire) on the 15th - and flurries as far south as Kent and Sussex. After some further rain, there was a brief mild interlude 20th-21st before the weather once more turned dry, sunny and cold with some sharp overnight frosts up to month end.

For England and Wales, February was a little warmer than normal, but Scotland a little cooler. Except for along the east coast, it was another wet month nationwide - especially so in already sodden Cumbria and North Lancashire - which received twice their usual rainfall. It was a sunny month for the entire UK with central England measuring >100 hours, ~50% more than usual, making it the fourth sunniest February here since at least 1929. Whilst the weather of February 2016 was unremarkable, record warmth and rainfall during December and early January have, for many places, left Winter 2015-16 without precedent. For Central England it has been the second warmest since 1659 and for Scotland, Wales and Northern Ireland no winter has been wetter in over 100 years. Capel Curig (Gwynned) recorded >2m rain throughout the winter, and 2.8m in the 4 months from November to February - 106% of the annual average!

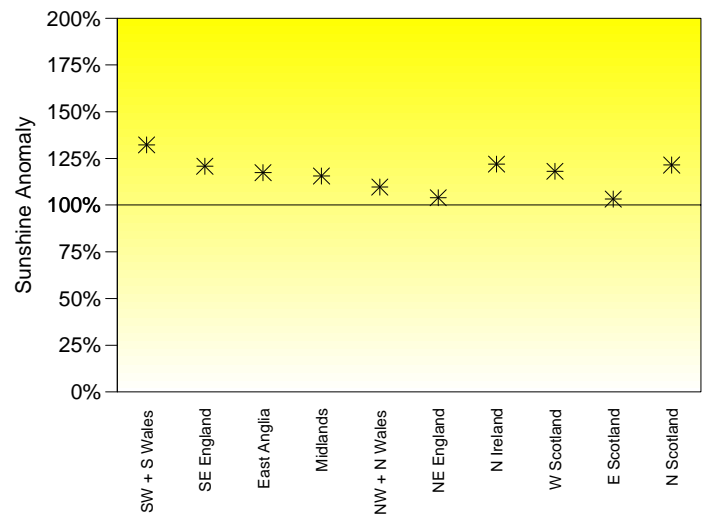
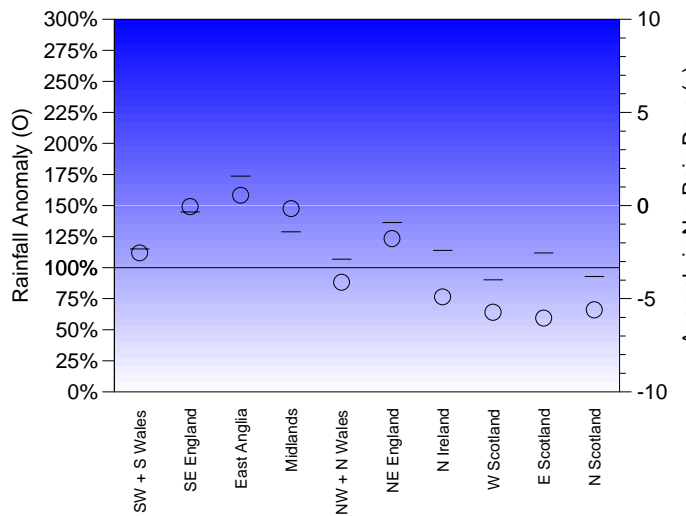
Rain turned increasingly to snow across Iberia 14th-15th as cold polar air surged southwards over western Europe. Spain's northern coast saw the heaviest snowfalls with Galicia in the northwest being buried in up to 40cm. There were numerous road closures and hundreds of drivers were left trapped in their cars near Ourense. The same weather system brought torrential rain and widespread flooding to northern and central Portugal. 64mm fell in 24 hours at Coimbra.

In North America, several tornadoes ripped across eastern Mississippi and western Alabama on the 2nd, felling trees and power lines - and leaving 14,000 homes without power. Meanwhile a brutal winter storm paralysed parts of the Midwest. Much of Colorado was blasted with more than a foot of snow, with 105cm in Coal Bank Pass. Snow also pounded New England on the 8th causing hundreds of flights to be cancelled at Boston International Airport. By Valentine's Day, extreme cold had gripped the eastern USA. New York's Central Park, shivered in -18.3°C - its coldest February night since 1963, and its coldest night since 1993. In Boston, -23°C was the lowest temperature in 60 years. Watertown, New York state recorded an even more numbing -38.5°C. On the 15th, an ice storm swept states from Georgia to Maine. Airports were forced to shut, rime build up on overhead cables caused the collapse of power lines, there was a spate of road accidents and numerous route closures. Further north, in Canada, on the 16th, Ottawa recorded its highest ever daily snowfall. 51cm fell within 24 hours, smashing the previous record (41cm), set in 1947.

In Asia, Karachi (Pakistan), reached 36°C on the 27th - a new record high for February. In contrast, heavy snow on the 1st disrupted public transport in southern China, leaving thousands of travellers marooned. A massive category five cyclone 'Winston' swept through Fiji, levelling entire villages, causing at least 40 fatalities and rendering over 60,000 people homeless. It was the strongest storm ever to hit the islands - and at the peak of its intensity on the 20th, and shortly before landfall, had a central pressure of just 915mb and packed sustained winds of 143mph.



Extremes for March 2016	
Hottest:	16.1°C Tulloch Bridge SAWS, Highland, 16th
Coldest:	-7.6°C Altnaharra SAWS, Highland, 31st
Most Rain:	55.3mm Capel Curig SAWS, Gwynedd, 1st
Most Sun:	12.3hrs Bude, Cornwall, 31st
Windiest:	91mph Berry Head, Devon, 9th
Warmest:	8.4°C Scilly St. Mary's SAWS, Cornwall
Coolest:	3.6°C Carterhouse, Borders
Wettest:	234.7mm Capel Curig SAWS, Gwynedd
Driest:	28.8mm Edinburgh Royal Botanic Garden No 2, Lothia
Sunniest:	173.9hrs Jersey St Helier, Channel Islands
Dullest:	78.5hrs Eskdalemuir, Dumfries and Galloway



March marks the beginning of meteorological spring. It reputedly starts, and ends, cold and stormy - with a quiet anti-cyclonic spell in between. Undeniably, warmer days become more common after the vernal equinox when (for the northern hemisphere), the net heat that the sun imparts each day steadily, and cumulatively, increases. March is often showery and north westerly winds - and hail - are both more common than in any other month.

March started wet, cold and unsettled. Storm 'Jake' brought heavy rain to North Wales and north western England on the 1st and gales to the western approaches (e.g. 81mph at Abedaron) on the 2nd. On the 4th, significant snow fell over northern England - with Yorkshire, Lancashire and Derbyshire worst affected. 17cm was recorded in Buxton, Derbyshire and 6cm at Leeds Bradford Airport caused all morning flights to be suspended. There were numerous road closures across the Pennines and a spate of road accidents. The 7th started frosty but was a glorious sunny day nationwide, although it became very cold after dark - e.g. -7.1 °C at Benson (Oxfordshire) The 9th was a very wet day for central and southern England. Totals widely exceeded 20mm and minor flooding was reported from the Midlands, Northamptonshire and Cambridgeshire. It was also very windy in the southwest (e.g. 91 mph at Berry Head (Devon), and 6,000 properties were left without power across Cornwall. High pressure became established 13th- 23rd, and brought dry, settled weather - and plenty of clear sky. The 14th and 17th saw uninterrupted sunshine although it remained stubbornly cool for England and Wales with temperatures struggling to 10°C (50°F). Northern Scotland was rather milder and a maximum temperature of 18.7°C (66°F) at Braemar (Aberdeenshire) on the 17th was the highest anywhere in the UK so far this year. The 20th marked the earliest vernal equinox in 120 years, but for most places any early spring warmth remained elusive. Good Friday, the 25th sunny, but the weather for the remainder of the Bank Holiday weekend was disappointing at best - and lethal at worst. Strong winds in the south on the 26th caused travel disruption and a young girl was killed when a bouncy castle broke its mooring and was blown across a park in Harlow, Essex. The 27th was very wet in the south and on the 28th, Easter Monday, Storm 'Katie' brought torrential rain to northern England and damaging gusts to Channel coasts (Needles Lighthouse, Isle of Wight recorded 106mph at 0500) and to the south east. The M25 QE2 Bridge, the M48 Severn Bridge and the A38 Tamar Bridge were all closed for a time, flights to and from Gatwick and Heathrow were suspended and the Port of Dover was closed. 200,000 properties were left without power and a kayaker was missing, feared dead, after he capsized in the River Wey, Surrey. Typically, the return to work coincided with sunshine and it became a little warmer.

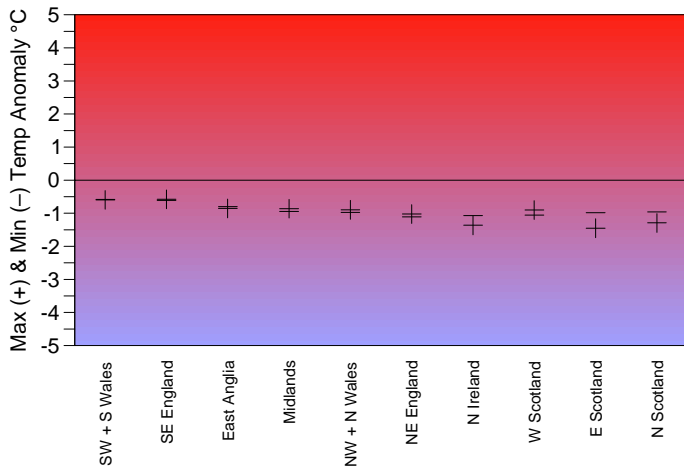
For the month as a whole, England and Wales were rather cooler than average, but Scotland a little milder. It was a sunny month nationwide - especially so in the south and the west, but a wet one too for England and Wales. This was a product of the episodes of heavy rain that occurred at the start of the second week and the end of the fourth. In Scotland, by contrast, some places received just half their normal rainfall.

In Europe, devastating flooding and landslides hit central and eastern Serbia 8th -9th leaving hundreds of homes under water and roads ruined. At Preljine near Cacak, 80mm of rain fell in 12 hours - and caused the River Cernica to burst its banks. There was tragedy high in the Italian Alps on the 12th as an avalanche struck and consumed six skiers.

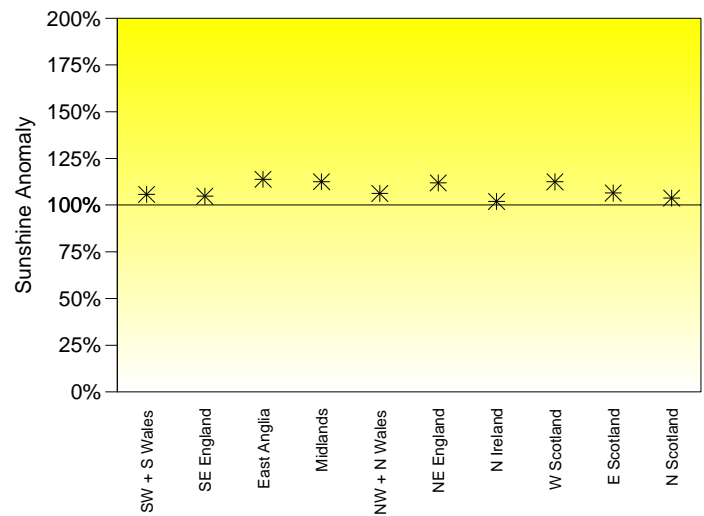
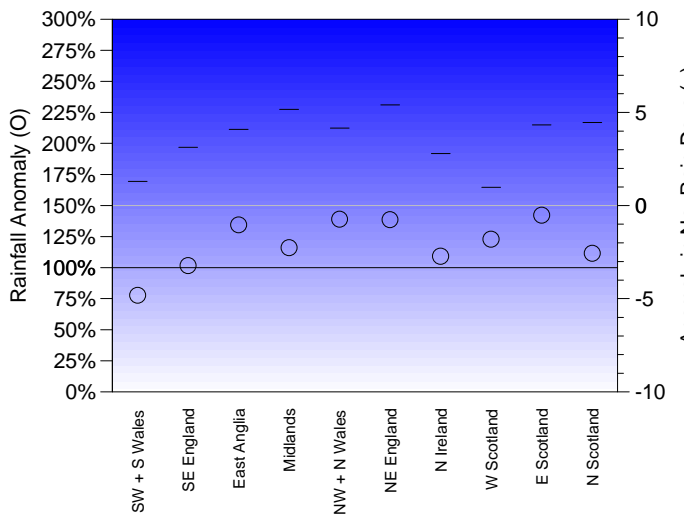
In Asia, spring remained on hold. Moscow received 20cm of snow overnight 1st-2nd - the heaviest March fall there in 50 years. There were dozens of flight cancellations and chaos on the roads - with 1,000 traffic incidents reported. Further south, a violent storm 9th /10th struck the south-eastern Arabian Peninsula. All flights out of Abu Dhabi International Airport (UAE) were suspended, and in neighbouring Oman, thunderstorms and torrential rain led to widespread flooding. Islamabad, Pakistan, was also struck 11th-15th receiving 135mm of rain in 5 days and Murree, on the mountain slopes just above the city, 300mm. Hundreds of homes were washed away by the resulting floodwaters and a coal mine collapsed leaving 12 dead.

In the USA, Louisiana and Mississippi were clearing up after a deluge of rain 10th-12th left roads submerged, bridges washed out and forced 3,500 people to evacuate their homes. At Shreveport, Louisiana, 275mm of rain (equivalent to treble the monthly average) was reported in less than 72 hours. On the 13th some southern states were battered by severe winds of up to 110mph, giant hail and tornadoes. In the south-western county of Montgomery, Arkansas, hailstones the size of baseballs caused damage to roofs, skylights and cars.

Australia, well into its Autumn, experienced some remarkable warmth. On the 9th, Melbourne recorded a maximum of 38.6°C (101.5°F) about 5pm, and subsequently its hottest ever March night - with the temperature falling no lower than 27.7°C (82°F)



Extremes for April 2016	
Hottest:	19.4°C Levens Hall, Cumbria, 21st
Coldest:	-5.5°C Tain Range SAWS, Highland, 28th
Most Rain:	54.1mm Scilly St. Mary's SAWS, Cornwall, 10th
Most Sun:	14.0hrs Tiree, Strathclyde, 20th
Windiest:	63mph Scilly St. Mary's SAWS, Cornwall, 10th
Warmest:	9.8°C Jersey St Helier, Channel Islands
Coolest:	3.4°C Dalwhinnie No 2, Tayside
Wettest:	207.7mm Capel Curig SAWS, Gwynedd
Driest:	26.9mm Guernsey Airport, Channel Islands
Sunniest:	234.3hrs Jersey St Helier, Channel Islands
Dullest:	109.3hrs Loch Glascarnoch, Highland



Despite its reputation for showers, April is typically the driest month of the year. Our surrounding seas are near their coldest and can not usually generate the amount of moisture necessary for heavy downpours. Droughts in April are not uncommon - and interestingly are well correlated with summers that subsequently prove very wet. Cool stormy periods supposedly recur 10th-15th and 23rd-26th. Snow in April is not unusual and statistically, rather more likely to occur than during November.

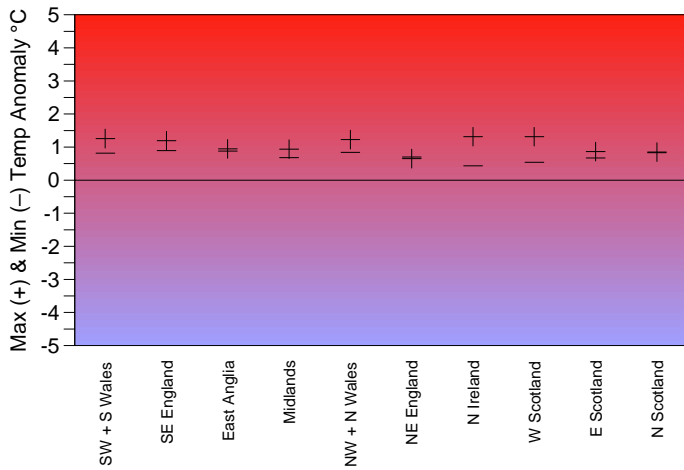
April began unsettled and dominated by low pressure, showers and rain. Sligachan, Isle of Skye recorded 104.6 mm of rain to 0900 on the 2nd. Thunderstorms affected East Anglia and Kent on the 3rd and North Yorkshire on the 4th. It continued unsettled into the second week when low pressure to the south west of the UK drew in cool easterly winds. Most days were wet, but there was sunshine between the showers. There were some notable thunderstorms across the south east on the 12th and 13th - and torrential rain in London on the afternoon of the 15th caused surface flooding and long delays to the evening rush hour traffic. The second half of the month was cold, bright and showery in a northerly airstream. There was a brief warm, bright and dry interlude 19th-22nd but cool and unsettled conditions soon returned. The last week was quite sunny nationwide, but showery - and often quite cold. Temperatures rarely exceeded 10°C (50°F) - even in the south, and sleet and snow 26th-29th caused travel disruption on the higher routes in Scotland, Cumbria, the Pennines and North Wales. At Copley, County Durham, the temperature reached just 5.3°C (41.5°F) on the 27th. A countrywide air frost on the early morning of the 28th was particularly severe in Scotland - where the grass minimum dropped to below -10°C (14°F). Crombie Country Park, Angus recorded 9cm of lying snow at 0900 on the 29th. Temperatures at last began to rise on the 30th - causing a rapid thaw and offering the promise of a rather warmer May.

Frequent winds of Arctic origin made April a chilly month overall - especially for the north. The UK as a whole was a degree cooler than normal - and in the last 25 years, only April 2013 has experienced more frost. An abundance of showers, made it a wet month nationwide, especially along eastern coasts which accrued rainfall totals 50% above normal. Entirely dry days were notably rare but despite this, sunshine was a little above average everywhere.

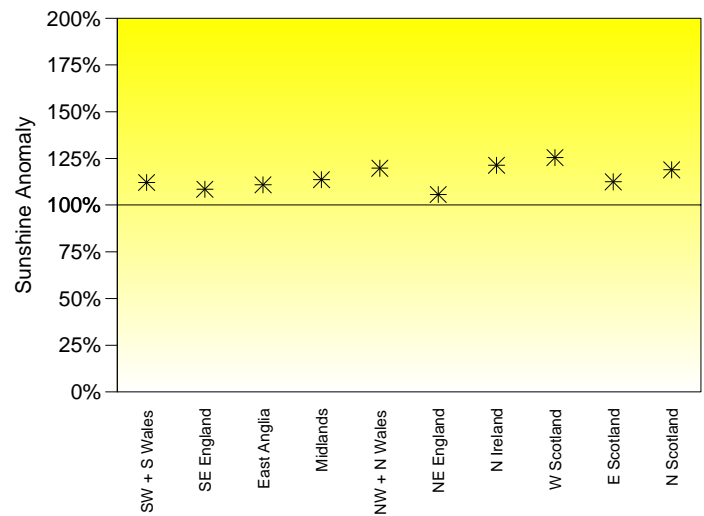
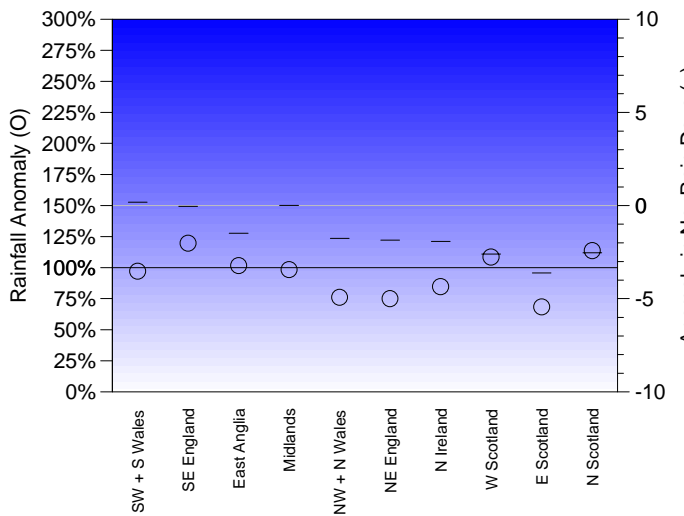
Europe also experienced an Arctic blast during the final week of April. Snowstorms in Austria on the 27th left tens of thousands of homes without electricity and caused serious disruption to rail and road traffic. In the USA, a 100 mile wide dust storm swept over the Texas Panhandle on the 5th and severe thunderstorms battered the southern and central States on the 12th. Baseball sized hail wrecked hundreds of vehicles in San Antonio, and Cole Camp, Missouri. Houston, Texas recorded 252mm of rain on 18th - making it easily its wettest ever day - and triggering catastrophic flooding that left seven people dead, hundreds displaced and thousands without power. Little Mound Creek in neighbouring Harris County was even wetter - recording a colossal 447mm. A powerful April snowstorm buried parts of Colorado 16th-17th. Falls of 50-75cm were widespread and 116cm accumulated near Conifer, just west of Denver.

Asia, sweltered under intense heat during April. In India, on the 4th, 17 towns and cities reported temperatures above 40°C (104°F) - unprecedented for so early in the year. Bangalore recorded its highest ever April temperature, 39.2°C (103°F) and on the 24th, Titlagarh measured 48.5°C (119°F) - setting a new national temperature record for April. Further south and east, national temperature records for April were also set at Seno, Laos - which reached 42.3°C (108°F) on the 13th, and Preah Vihea, Cambodia - which reached 42.6°C (109°F) on the 15th. The exceptional heat triggered devastating hailstorms in Vietnam on the 10th. At Tuyen Quang, hailstones the size of grapefruits peppered roofs, smashed solar panels and injured farmers on their way to work. 1,000 houses were damaged and 100 hectares of vegetable crops destroyed. In the South Indian Ocean, tropical Cyclone "Fantala" meandered off Madagascar, peaking in intensity on the 17th-18th, when it reached Category five level with maximum sustained winds of 177mph. In the Pacific, Fiji was deluged by 300mm of rain, 3rd-4th then a further 150mm on the 7th as Tropical Cyclone Zena struck. Meanwhile, in Australia temperatures in New South Wales hit 38.6°C (102°F) on the 5th - making it the hottest April day there in 30 years.





Extremes for May 2016		
Hottest:	27.1°C	Northolt, Greater London, 8th
Coldest:	-5.7°C	Tulloch Bridge SAWS, Highland, 14th
Most Rain:	54.7mm	Wattisham, Suffolk, 31st
Most Sun:	16.0hrs	Leuchars, Fife, 31st
Windiest:	61mph	South Uist Range, Western Isles, 2nd
Warmest:	14.7°C	St James Park, Greater London
Coolest:	8.1°C	Baltasound SAWS, Shetland
Wettest:	174.2mm	Achnagart, Highland
Driest:	15.0mm	Newton Rigg, Cumbria
Sunniest:	266.8hrs	Tiree, Strathclyde
Dullest:	153.1hrs	Eskdalemuir, Dumfries and Galloway



During May, the rain bearing Westerlies are at their weakest, and are most likely to be displaced by high pressure. This fact, and the long days, makes May the sunniest month in many years. It is also typically amongst the driest - although, seasonal warming and moist easterly air from the continent can trigger spectacular thunderstorms. The hottest day of the year falls in May about 1 year in 50 - but frosts and even snow are not uncommon - especially in the north, where they seem to gravitate around the festival of the "Ice Saints" 9-14th.

May began unsettled and windy. 81.2mm of rain fell at Sligachan, Isle of Skye in the 24 hours ending 0900 on the 2nd, and a wind gust of 61mph was recorded at South Uist, Western Isles, the same day. By the 5th high pressure had become established close to the UK - initiating a mild easterly flow that persisted, with the exception of a brief unsettled spell 17th-22nd, until month end. It meant that frosts were rare - and confined to Scotland and to a brief cool interlude mid-month. Tulloch Bridge, Inverness-shire recorded the month's coldest temperature, -5.7°C (22°F) just before dawn on the 14th (St. Mamertus's Day). For the most part, days were fine and balmy, and away from North Sea coasts, bright and sunny. The second week was particularly warm - and the 8th was glorious - with temperatures across England and Wales widely exceeding 24°C (75°F) The heat moved north the following day, when Plockton, Ross & Cromarty recorded 27.7 °C, 82°F - the month's highest.

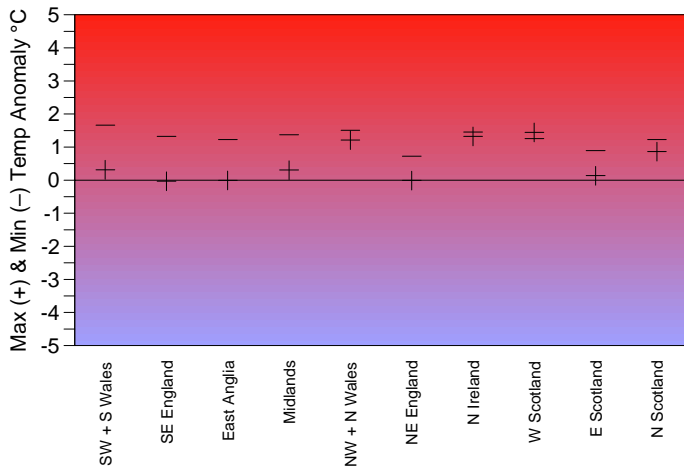
Frontal rain was conspicuously absent all month - fended off by the easterly flow, but for the south especially, it was rarely dry for long. The heat and humidity triggered torrential showers and some fierce thunderstorms. On the 7th, these caused flooding around London - e.g. Harrow, (where 35mm of rain fell within a single hour), Mitcham, Wallington and Croydon - where lightning started several small fires. Dunstable town centre, Bedfordshire, Great Barr in Birmingham and Penicuik, Midlothian, were also inundated - and three people were injured by a lightning strike in Lisburn, County Antrim. On the 11th roads in Lewisham, London, Woking, Surrey and the Welsh capital, Cardiff, were flooded - and the opening day of the Royal Windsor Horse Show in Berkshire was cancelled due to weather for the first time in its history. Southern and western Wales bore the brunt of further severe thunderstorms on the 27th - and these drifted south the following day causing widespread power cuts and flooding numerous roads. A final episode over Essex on the 31st left Southend and Canvey town centres flooded.

It was the warmest May since 2008 with average temperatures nationwide typically 1°C above normal. It was also a bright month everywhere except along those North Sea coasts that were blighted by sea fog. Western Scotland and North Wales were exceptionally sunny, the former receiving 50% more sunshine than usual, making it the sunniest month there in 16 years. Rainfall was a little below average for the UK as a whole thanks to a relative dearth of frontal rain and a near drought over northern England 2nd-18th. Eastern Scotland, received one third less rainfall than normal, although in south east England frequent thunderstorms meant there was 20% more.

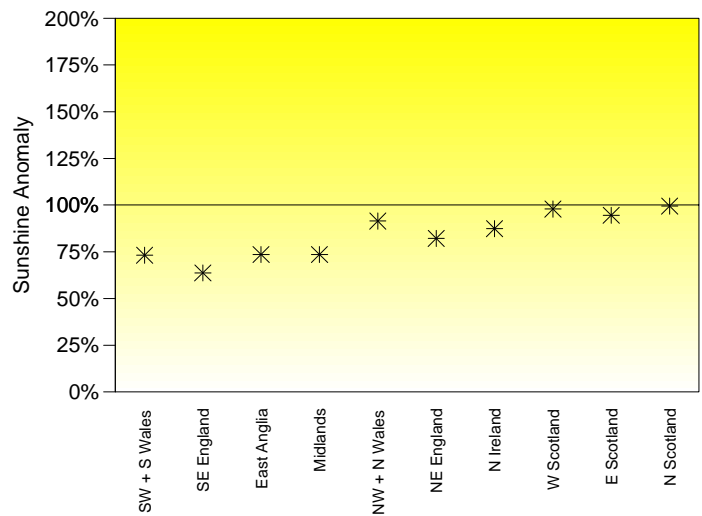
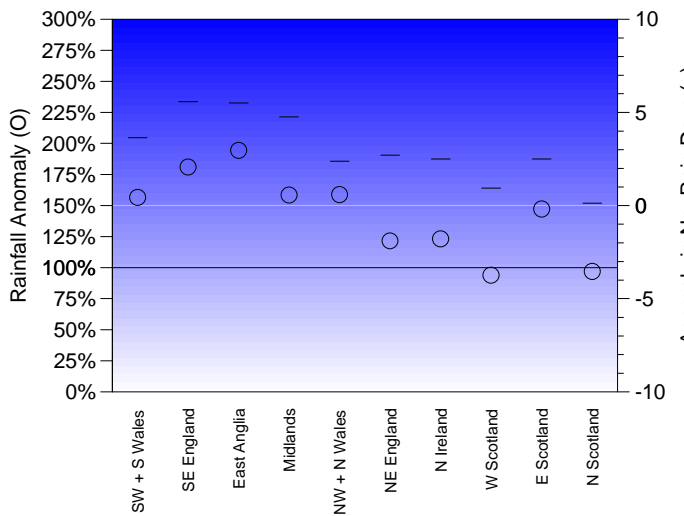
In France, ten children were injured after being struck by lightning during a birthday party at Parc Monceau in central Paris on the 27th. The group had been taking shelter beneath a tree when the electrical storm broke. Accompanying downpours caused the river Seine to burst its banks. On the same day, Poland was also hit by violent storms - and a man was struck by lightning and killed while walking on the Babia Gora mountain. Severe storms battered south west Germany on 30th. In the town of Braunsbach, torrential rain led to flooding that swirled cars and debris through the narrow streets and left 3 people dead.

Across the Atlantic, a destructive tornado tore through Elmore City in Oklahoma on the 9th. Numerous houses were destroyed, barns were flattened, mobile homes were overturned and trees uprooted. In the same storm wave, baseball-sized hail hit Omaha, Nebraska, peppering cars and roofs. Perham in Maine, New England, saw 19cm of snow on the 16th, as cities across the north east saw temperatures plummet to 9°C (15°F) below normal. On the 31st south-eastern Texas experienced major flooding following 500mm of rain over the Memorial Day weekend (28th-30th) Several rivers, including the Brazos at Richmond, rose to record levels, leaving roadways and homes inundated.

In Asia, India experienced its hottest ever day when Phalodi, in Rajasthan state, reached a blistering 51°C (124°F) on the 19th. The new record came amid a remorseless heat wave across the sub-continent which has melted highways and caused hundreds of deaths. Israel also experienced exceptional heat during May. On the 16th the popular resort of Eilat reached 46°C (115°F) and Kibbutz 47°C (117°F). In the southern hemisphere, on the 3rd, Victoria state, Australia, was battered by 75mph winds which damaged homes, uprooted trees, and caused - to the delight of surfers - a huge swell with waves up to 7m high!



Extremes for June 2016		
Hottest:	27.8°C	Porthmadog, Gwynedd, 5th
Coldest:	0.0°C	Kirkwall, Orkney, 2nd
Most Rain:	55.2mm	Winterbourne No 2, West Midlands, 16th
Most Sun:	16.7hrs	Lerwick, Shetland, 5th
Windiest:	58mph	Pembrey Sands, Dyfed, 28th
Warmest:	16.8°C	St James Park, Greater London
Coollest:	10.4°C	Fair Isle, Shetland
Wettest:	182.0mm	Porthmadog, Gwynedd
Driest:	34.0mm	Scilly St. Mary's SAWS, Cornwall
Sunniest:	205.3hrs	Valley, Gwynedd
Dullest:	91.4hrs	Thomastown, County Fermanagh



Despite the long days and abundant sunshine, June only contains the hottest day about 1 year in 4. Much rarer still is for June to be the hottest month. This has occurred just a handful of times in the last 100 years. The reality is that June is rarely very warm and normally experiences temperatures similar to September. Even during the exceptional heat of 1976, June was only as warm as a typical July or August. Characteristic of month end is a wetter regime as winds revert once more from the Atlantic - a phenomena termed 'the Return of the Westerlies or the 'June monsoon'.

June began dry and settled although sunshine (and temperatures) followed a marked west / east divide - as cool north easterly winds brought low cloud in from the North Sea. Just before sunrise on the 2nd, beneath clear skies in Sutherland, Ressaalach recorded an air frost (-0.1°C), the months lowest. The 5th was a glorious day nationwide and Porthmadog (Gwynedd) reached 27.8°C (82°F) - the months highest. Whilst the next few days were warm and often sunny, it became increasingly unsettled and thunderstorms broke out somewhere in the UK virtually every day through to the 17th. On the 7th there was flash flooding and lightning damage across the Home Counties, Lothian and Perthshire. In the far north, a storm over Scardroy Lodge, Ross and Cromarty dumped 87.8mm of rainfall in just a few hours. On the 8th torrential rain across the Midlands caused the fire and rescue service to be called to over 400 separate weather related incidents, and on the 12th, heavy rain inundated Gatwick Airport causing damage to the main runway and numerous flight delays. East Anglia bore the brunt the following day and waterlogged tracks stopped train services to Norwich. On the 14th thunderstorms over Manchester led to flight disruption at the airport, 100 homes in Cheltenham were flooded, and part of the roof of the Bullring Shopping Centre in Birmingham collapsed beneath the weight of rainwater. Leicester was badly affected on the 15th and Folkestone on the 17th.

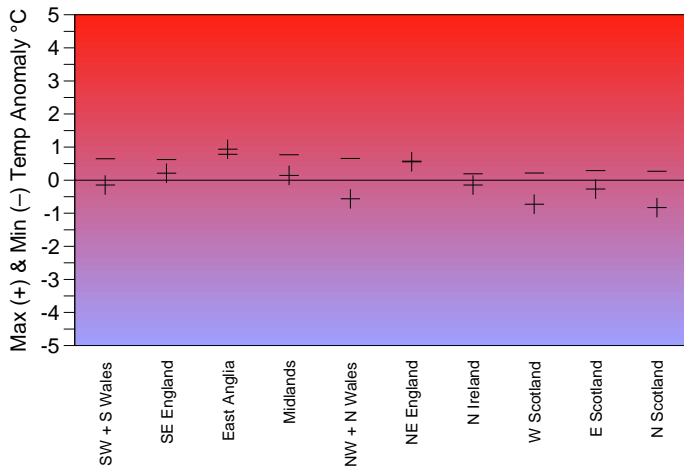
After a brief quieter spell, EU Referendum Day, June 23rd was marked by some violent storms - principally affecting London and the south east. London St James Park recorded 44mm - nearly a months typical rainfall in just 6 hours. Road, rail and underground were all seriously affected. Polling stations in Kingston and Barking were flooded and forced to close, and the London Fire brigade attended more than 400 weather related incidents. The Environment Agency issued 45 flood alerts and 16 red flood warnings. Storms on the 24th were confined to northern Scotland, but returned to Norfolk, Essex and Kent for one final blitz on the 25th. The worst of the months weather was now over, but it remained unsettled - and the 28th was a notably windy day for exposed coasts - with Pembrey Sands (Dyfed) and Needles (Isle of Wight) both recording wind gusts of 58 mph. The same day a tornado also caused damage to properties in Mawdesley, Lancashire.

Whilst daytime temperatures during June were close to normal for most places, it was consistently and exceptionally mild by night. Night time temperatures for Wales averaged 2°C above normal, and for the UK as a whole, no June since at least 1910 has experienced warmer nights. Rainfall was well above average widely, but its predominantly thundery origin produced significant regional - and local variation. London, Manchester, the Midlands and Aberdeenshire all received double their normal June totals - and at various stations, notably St James park, London (133.8mm) it was the wettest June ever - although nowhere did this extend to a region. June was a dull month everywhere except the extreme north of Scotland and north Wales. Many places received a quarter less sunshine than normal. For south east England and for various stations like Heathrow (132.5 hours) and Brize Norton (120.9 hours), it was the dullest June in 100 years.

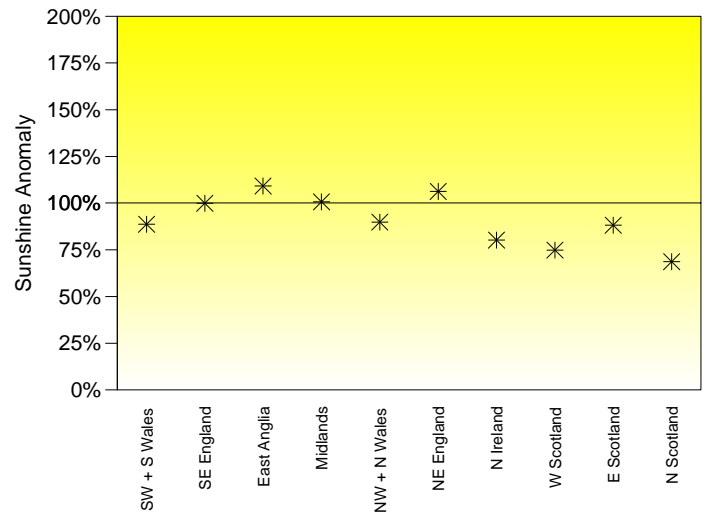
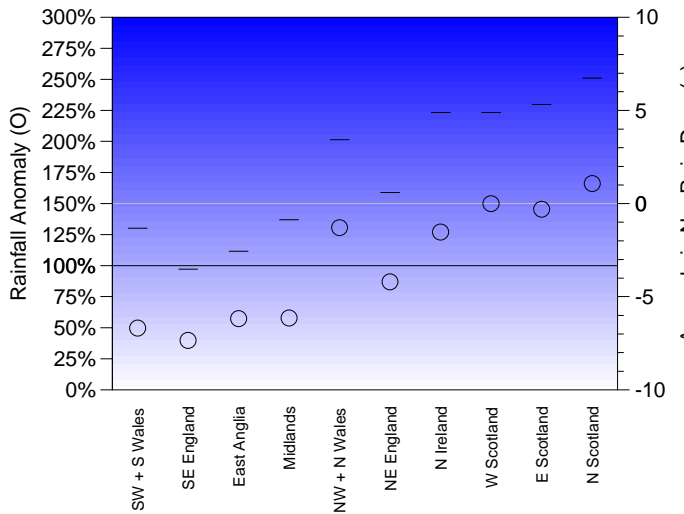
Heavy rainfall affected Europe at the start of the month. In southern Germany on the 1st, 35mm fell within six hours at Pfarrkirchen. Nearby Passau was flooded to a depth of several metres, and rivers burst their banks at Triftern. In France, the high level of the Seine in Paris forced closure of many promenades, and the town of Nemours, was inundated and had to be evacuated. Holland experienced its wettest June ever - Limburg recording a total of 277mm. In Belgium following stifling heat, and temperatures exceeding 32°C, (90°F) a massive thunderstorm hit the province of Brabant on the evening of the 23rd. There were spectacular lightning displays, violent squalls and golf ball sized hail that cracked car windscreens and peppered roofs.

In the eastern USA, on 23rd-24th, up to 250mm of rain fell in 24 hours across West Virginia triggering catastrophic flooding that caused rivers to overflow, left 32,000 homes without power and 24 dead. Meanwhile, record heat affected the southwest. Phoenix, Arizona, reached 48°C (118°F) on the 23rd, its fifth highest temperature ever, Needles, California 51.5°C (125°F) on the 20th, its hottest June day ever, and Blythe, California, 52°C (126°F) on the 22nd - its hottest ever day.

In India, violent electrical storms across the states of Bihar, Jharkhand, Uttar Pradesh and Madhya Pradesh on the 21st, were responsible for at least 93 deaths. Most of the fatalities were to agricultural field workers struck by lightning. A powerful tornado struck the eastern Chinese city of Yancheng on the 23rd. The storm hit a densely populated area of farms and factories - and flying debris and giant hail left 78 people dead and 500 injured.



Extremes for July 2016	
Hottest:	33.9°C Jersey St Helier, Channel Islands, 19th
Coldest:	0.5°C Altnaharra SAWS, Highland, 2nd
Most Rain:	67.6mm Capel Curig SAWS, Gwynedd, 9th
Most Sun:	15.5hrs Wattisham, Suffolk, 18th
Windiest:	55mph Capel Curig SAWS, Gwynedd, 9th
Warmest:	19.4°C St James Park, Greater London
Coolest:	11.9°C Dalwhinnie No 2, Tayside
Wettest:	262.2mm Capel Curig SAWS, Gwynedd
Driest:	2.2mm St Catherines Point, Isle of Wight
Sunniest:	231.8hrs Jersey Airport, Channel Islands
Dullest:	49.5hrs Loch Glascarnoch, Highland



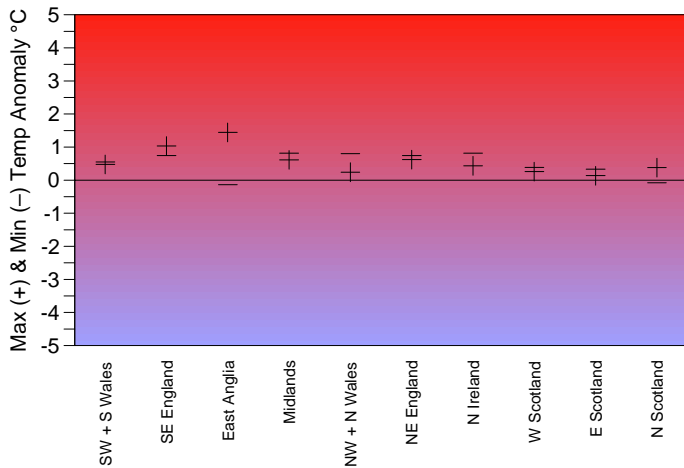
July marks high summer and is typically the warmest month of the year. It contains the hottest day about 44% of the time and this most usually occurs 10th-20th. In the north, July is notably duller and wetter than May or June - and for Eastern Scotland is the wettest month of the entire year. Further south, July is normally amongst the drier months - although thunderstorms can give rise to considerable local variation.

July began unsettled with a mixture of sunshine and showers. It was also cool, and the 2nd saw a ground frost in the north Scottish Highlands. More persistent, frontal rain affected north and west Britain 4th-7th (e.g. 20-30mm over the Highlands) and 9th-10th e.g. >100mm at Capel Curig, Snowdonia (half of which fell in just 12 hours on the 9th) Further south, rainfall was of thundery origin - and rather more sporadic, leaving a few places inundated (e.g. Lingwood, Norfolk 47mm on the 12th was almost its entire July average), but many others entirely dry. Daytime temperatures struggled to break 20°C (68°F) and were often accompanied by a cool westerly breeze. Summer finally arrived on the 16th with a plume of warm Iberian air. The heat spread northward and westward over following days and it became progressively warmer - often feeling oppressive at night. London hit 30°C (86°F) on the 18th and the next day Brize Norton, Oxfordshire reached 33.5°C (92.3°F) A soldier died as a result of heat exhaustion whilst training for SAS selection in the Brecon Beacons. Even Scotland basked, albeit briefly, with temperatures in the far north reaching 27°C (80.6°F) Violent thunderstorms abruptly ended the heat wave for northern Britain on the 20th. There were some torrential downpours (e.g. 98mm at Nunraw Abbey, East Lothian), and roads around Glasgow were closed due to surface flooding. Marble sized hail damaged caravans near Annan, Dumfries and Galloway - and lightning caused power failures in Blackpool, Carlisle, Penrith and Keswick. The heat hung on a few days more in the south and east, but by the 25th all places were cooler and unsettled one more - and this persisted through to month end.

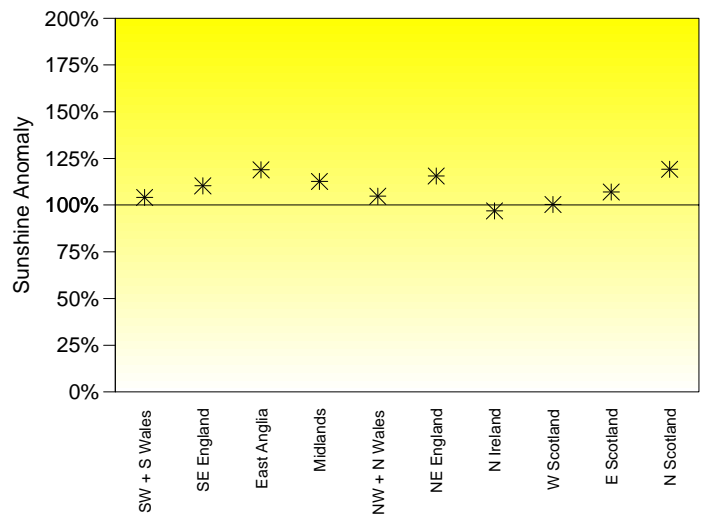
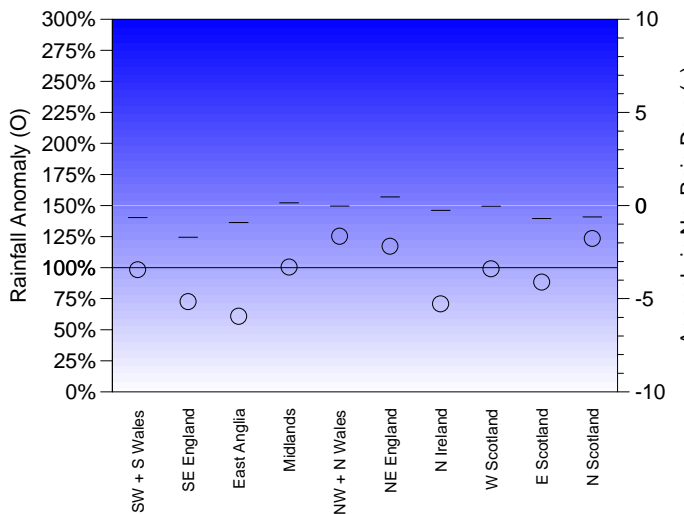
During July the main track of rain bearing low pressure systems was to the south east of Iceland. North and western Britain bore the brunt of moist south westerly winds, and it made for a dull and wet month here. Stornoway, Western Isles, had it's 3rd wettest July ever, with rainfall totals nearly double normal - and sunshine barely one half. In contrast, southern and eastern England was markedly dry (although rarely especially sunny) Rainfall totals here were typically 50% of average, making it the driest July so far this century. Some places, which dodged the showers, recorded <5mm all month - and St Catherine's Point, on the Isle of Wight, just 1.4mm - its driest July ever. Temperatures for July were unremarkable, especially by day - and close to average nationwide.

Some 20,000 homes were left without power after high winds, hail, tornadoes and torrential rain struck central and north-east Poland on the 12th. The town of Sulejow recorded 111mm of rain in just four hours. In the capital, Warsaw, flooded streets, metro stations and tunnels rendered many routes impassable and caused transport chaos. In America, hail as large as tennis balls bombarded the city of Colorado Springs during a prolonged thunderstorm on the 28th. Cars and homes were wrecked, and ice lay on the ground for hours afterwards. Further north, a heat wave in Alaska brought record temperatures. Deadhorse on the shores of the Arctic Ocean reached 28.8°C (84°F) on the 13th and Fairbanks, 30.5°C (87°F) the same day. Unprecedented heat also seared the Middle East. Mitribah, Kuwait, hit 54.0°C (129.2°F) on the 21st, making it the hottest day ever recorded for the eastern hemisphere and possibly the world - with the figure from Death Valley, California, 56.7°C, (134°F), 10th July 1913, disputed. In Asia, Hong Kong had its hottest day since 1968 with temperatures reaching 37°C (99°F) on the 10th. It was followed by the territories most violent electrical storm ever, with >10,000 lightning strikes recorded during a spectacular 12-hour show that lasted all night.

In the Southern Hemisphere, it is mid winter. Durban, South Africa recorded 150mm of rain in just 12 hours on the 25th - five times the entire July average. The resulting flooding was responsible for widespread disruption - and at least two deaths. Meanwhile in the south-eastern interior, heavy snowfall shut the Sani Pass and roads to Lesotho. The ski resort of Drakensburg was inundated by 100cm and left snowed in!



Extremes for August 2016	
Hottest:	34.1°C Faversham, Kent, 24th
Coldest:	-1.0°C Tulloch Bridge SAWS, Highland, 10th
Most Rain:	62.2mm Shap SAWS, Cumbria, 20th
Most Sun:	14.3hrs Kirkwall, Orkney, 16th
Windiest:	68mph Loch Glascarnoch, Highland, 7th
Warmest:	19.7°C Heathrow, Greater London
Coolest:	12.2°C Dalwhinnie No 2, Tayside
Wettest:	248.8mm Blencathra, Cumbria
Driest:	11.8mm Writtle, Essex
Sunniest:	304.6hrs Jersey St Helier, Channel Islands
Dullest:	85.5hrs Thomastown, County Fermanagh



August is generally a little cooler than July - and contains the hottest day around 1 year in 4. For many places, August is the most thundery month, and consequently, frequently amongst the wettest. Daylight hours begin to wane noticeably towards month end - and in northern Scotland nights once more become truly dark. There is tenuous evidence for recurrent storminess around the 28th.

The weather during August was rarely settled for long. It was marked by bouts of rain which (with the noticeable exception of the 1st), affected mostly the north and west, leaving the south and east parched for a second consecutive month. It was also frequently and unseasonably windy. On the 7th gales across the north led to the cancellation of various outdoor events, caused numerous power outages and disrupted road and rail. A 17,000 tonne oil rig ran aground on the Isle of Lewis after breaking its tow in high seas. Early morning on the 10th saw a widespread ground frost across Scotland and local air frost in the Highlands. Rain then arrived for Scotland and in the north and west persisted the next three days. There were some prodigious totals e.g. Achnagart, Ross & Cromarty recorded 101mm for the 72 hours ending midnight on the 12th, and a campsite was flooded on Mull. England and Wales meanwhile were increasingly dry and days quite warm. 15th-17th were glorious, fine and sunny nationwide, but as high pressure slipped east a vigorous low brought widespread strong winds and gales around coasts on the 20th. Gusts reached 76mph at Great Dun Fell on Pennines, 69mph at Needles, Isle of Wight, 68mph at Capel Curig, Gwynedd and 63mph at Mumbles, Swansea. Fallen trees disrupted travel in South Wales, there were numerous accidents - and 6 people were drowned in high seas in separate incidents around the UK coast. The 20th was also very wet for north west England and further torrential downpours on the 22nd triggered flooding in Cumbria and Lancashire that closed some rail and road routes (including the M6) - and forced a few evacuations. Hot air blowing northward from the continent then resulted in a brief heat wave across south and east England. Temperatures culminated in 34.1°C (93.4°F) at Faversham, Kent on the 24th - the hottest day of the year so far. Thunderstorms on the 27th and 28th and running in a wide belt from Dorset, across the Midlands to the Wash marked the end of the very warm temperatures and left some places inundated. In Lincolnshire, a Tesco at Boston was struck by lightning and the village of Kirton was cut off for a time by surface flooding. The following day, thunderstorms moved north and west and localised flooding was reported from North Wales, Redcar and Cleveland.

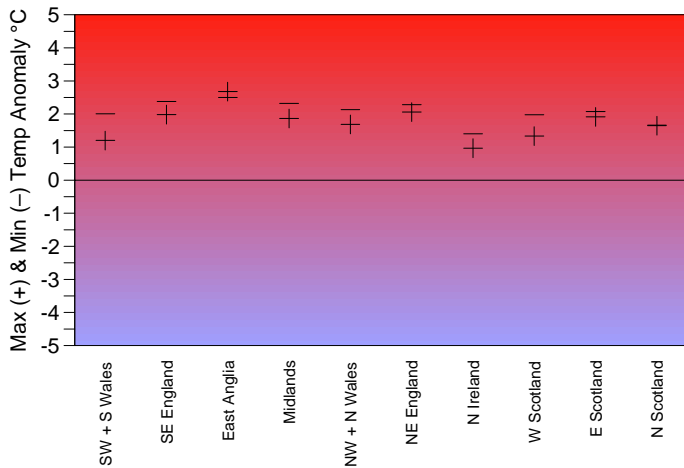
For England and Wales, August was the warmest since 2004, and the sunniest since 2005. In East Anglia, no August since 2003 has been warmer or drier, and none since 1995 sunnier. For the UK as a whole, rainfall was close to average, but this disguises considerable regional variability. Swathes of the south and east received half their normal August rainfall but parts of north west England and the Western isles double.

In Europe, a severe rainstorm over Macedonia's capital, Skopje, triggered flash flooding that killed 21 people 6th-7th. On the 11th, the temperature at Ljungskile in Sweden peaked at just 8.6°C (47°F) - its coldest August day in more than a century. In contrast, France experienced a record-breaking late summer heat wave. High readings included 36.9°C (98.4°F) at Saintes on the 23rd, 37.7°C (99.9°F) at Blois on the 24th, 36.6°C (97.9°F) in Paris on the 25th and 38°C (100.4°F) at Dax on the 27th. A tornado ripped through the suburbs of Syktyvkar, a provincial capital in Komi, northwest Russia on the 24th wrecking several buildings, felling trees and power lines.

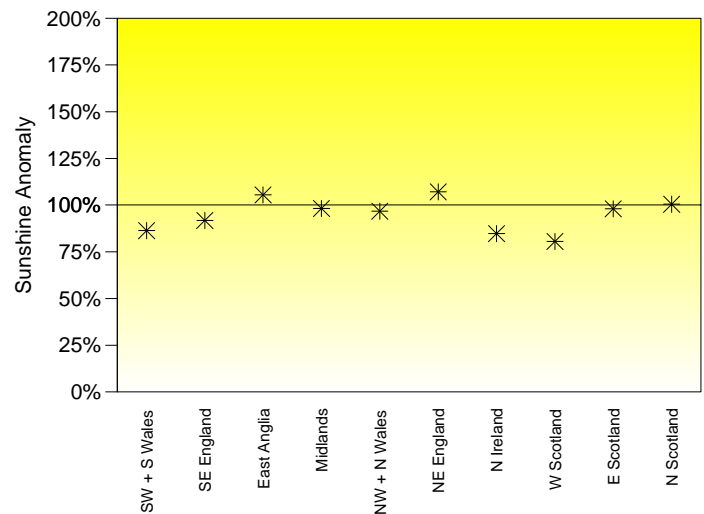
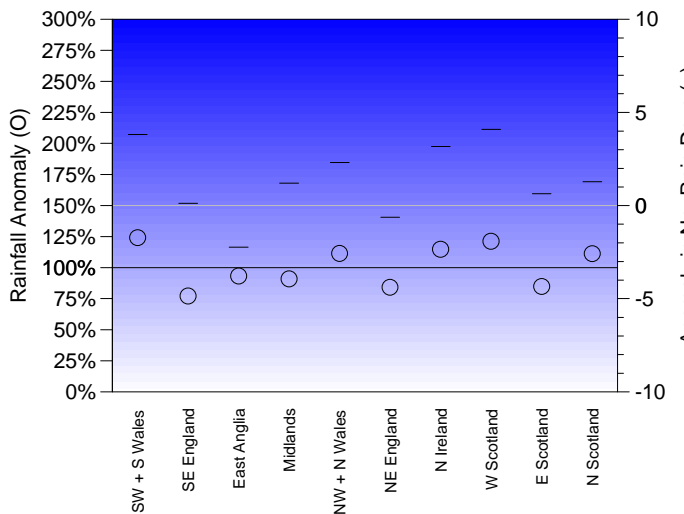
In the USA, record rainfall hit Louisiana. 800mm fell at Watson, 10th-17th causing the Amite River to swell to record levels and triggering catastrophic flooding. In the state capital, Baton Rouge, 8000 people were forced to evacuate and elsewhere, soldiers and emergency teams took to boats to rescue a further 20,000 from their half submerged homes or cars. In Central America, tropical storm Earl battered Belize on the 4th and flooded part of the coast before moving into Mexico, where torrential rain triggered mudslides that left 38 dead.

In Asia, Typhoon Nida packing hurricane force winds and torrential rain made landfall on Hong Kong on the 2nd. The observatory recorded 90mph winds and 121mm of rain. Hundreds of flights were cancelled from the main airport and thousands of workers were evacuated from offshore oil rigs and construction sites. In New Zealand, Hawkes Bay awoke on the 8th to find the local road network paralysed by deep snow. Up to half a metre fell leaving drifts a metre deep, vehicles stranded and thousands of homes without power. Mt Ruapehu, Chateau had its coldest morning since 1991 with a minimum of -9.8°C (14°F) on the 8th.





Extremes for September 2016		
Hottest:	34.4°C	Gravesend Broadness SAMOS, Kent, 13th
Coldest:	0.0°C	Sennybridge, Powys, 4th
Most Rain:	92.4mm	Skye, Inverness-shire, 11th
Most Sun:	12.3hrs	East Malling, Kent, 11th
Windiest:	71mph	Loch Glascarnoch, Highland, 27th
Warmest:	18.5°C	St James Park, Greater London
Coolest:	11.8°C	Dalwhinnie No 2, Tayside
Wettest:	303.2mm	Achnagart, Highland
Driest:	11.0mm	Frittenden, Kent
Sunniest:	188.2hrs	Jersey St Helier, Channel Islands
Dullest:	60.5hrs	Eskdalemuir, Dumfries and Galloway



September can see a late resurgence of summer. High pressure over Scandinavia is often well placed to stave off Atlantic lows that have yet to build much vigour. Here probably lies the origin of the "old-wives summer" - three supposed fine dry periods 7th-10th, 16th-21st, 30th (which in turn are reputedly followed by wet stormy days)

September began unsettled and the 3rd was very wet - especially for south west England and Wales, with flash flooding reported in Devon, Rhondda, Neath, Swansea Bay and Camarthenshire. It became milder from the 5th - and the 7th was warm and sunny nationwide with temperatures reaching 25°C (77°F) as far north as Aberdeenshire. Atlantic influences re-asserted over following days, bringing spells of rain especially to the north and west. Skye recorded 92.4mm on the 11th and a Red Bull cliff diving event was cancelled due to high winds at the Blue Lagoon, Pembrokeshire. To the east, high pressure over Scandinavia kept the westerly's at bay and a plume of very hot and humid southerly air, heralded a brief but spectacular heat wave. Temperatures culminated in 34.4°C (93.9°F) at Gravesend, Kent on the 13th - the warmest September day since 1911 and the hottest day this year (the first time this has fallen in September since 1991) Temperatures at night were no less remarkable - and a lowest of 20.7°C (69.3°F) at Manston on the 14th was within 1°C of the September record. The heat and humidity triggered spectacular thunderstorms which ranged across the entire western half of England. These caused significant disruption and damage, notably across West Cornwall (Penzance, Redruth & Truro) - and in Manchester - where 'City's Champions League fixture had to be postponed, the Town Hall and Arndale shopping centre were flooded and the M56 closed for a time. It remained very warm in the south and east through the 14th and 15th, before more thunderstorms ended the heat wave here. Flooding caused major delays on the M25, M4 and M40 and rail transport was thrown into chaos by power and signal failures, inundated stations and blocked tracks. The second half of September, was rather less dramatic. Brief fine interludes were interspersed with frequent rain bearing frontal systems - but temperatures remained above the seasonal average - especially in the east. The first gale of the autumn occurred on the 27th - as a deep depression passed just north of Scotland. Gusts reached 70mph in the Northern Isles and exceeded 100mph on Scottish mountain tops. Ferry and rail transport was disrupted and 500 properties lost power.

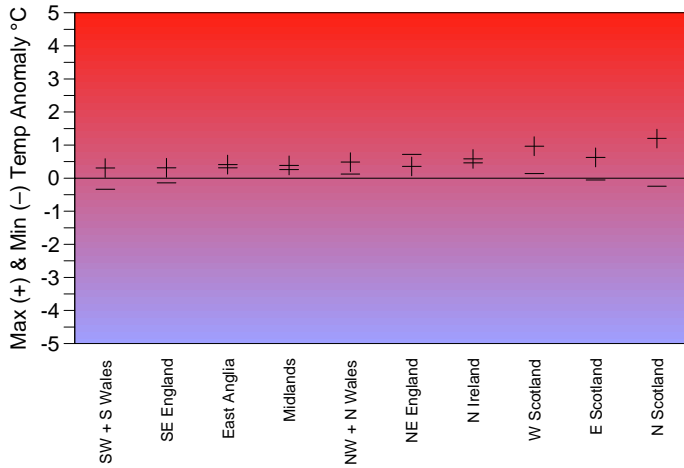
The notable heat wave, an abundance of sultry nights, and an entire absence of frosts, made September exceptionally mild. Mean UK temperatures were 2°C above normal, ranking it the (equal) 2nd warmest in a century, and for Central England the 5th warmest since 1659. Despite this, most places away from North Sea coasts were a little duller than average - south western England and south western Scotland markedly so. September was relatively dry in the east - and especially the south east - but wet along Atlantic coasts, and for the UK as a whole rainfall was close to normal. Thunderstorms however produced a good degree of local contrast.

The heat wave experienced by the UK during September also extended into Europe. Aicirits, Aquitaine reached 38.1°C (101°F) on the 12th and Montgivy in central France 37.1°C (99°F) on the 13th. Greece experienced torrential rain and flash flooding on the 7th. 140mm of rain fell in a single hour around the Peloponnese city of Kalamata forming a torrent that destroyed homes and swept cars out to sea.

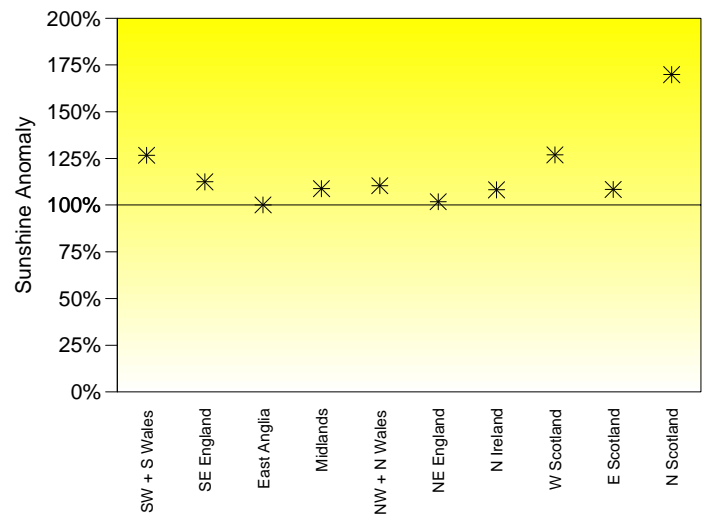
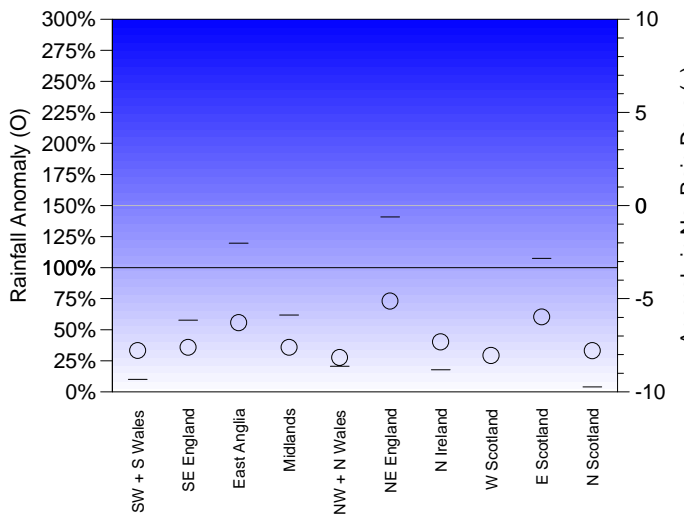
In the USA, Kempsville, Virginia received 342mm of rain in 72 hours 20th-21st causing flooding that inundated homes and swamped roads. In the Gulf of Mexico, a disturbance that had originated from a tropical wave off Africa on the 22nd developed into a tropical storm as it approached the Windward islands on the 28th. It was named Matthew...

The Eastern Pacific was battered by a series of typhoons during September. Meranti reached peak intensity on the 13th with sustained wind speeds of 140mph and gusts to 190mph. It caused damage to over 18,000 homes, at least 30 fatalities and damage estimated at \$2.63B across the Philippines, Taiwan, China and the Korean peninsula. Hot on the heels and only slightly less intense (but with a more easterly track resulting in less landfall) was Malakas on the 15th. Finally, Megi brought 100mph winds and up to 1m of rain to Taiwan on the 27th before making a second landfall across southeast China, close to Putian. Almost three million homes and businesses lost power, there were 24 confirmed fatalities and \$945M of damage.

In the mid Pacific, Samoa witnessed a hail storm so rare that it was believed to be a hoax by many of the island's inhabitants! The unprecedented storm struck on the 16th on the eastern side of Savai'i, peppering the island with hail stones the size of cherries. One of the most extreme weather systems in decades cut power to the entire state of South Australia 28th-29th. Torrential rain, thunder and lightning were followed by intense low pressure and winds of up to 87mph, which felled trees and blew down houses. There was widespread flooding, and in the Barossa valley, a dam burst. Storm surges and huge waves also inundated communities along the Spencer and St Vincent gulf coasts with Port Pirie, Port Broughton and Moonta worst affected.



Extremes for October 2016	
Hottest:	22.2°C Trawscoed SAWS, Dyfed, 31st
Coldest:	-5.0°C Tulloch Bridge SAWS, Highland, 25th
Most Rain:	74.4mm KillyLane, County Antrim, 14th
Most Sun:	11.0hrs East Malling, Kent, 3rd
Windiest:	62mph Sule Skerry MAWS, Orkney, 28th
Warmest:	13.5°C Scilly St. Mary's SAWS, Cornwall
Coolest:	6.9°C Braemar No 2, Grampian
Wettest:	121.8mm Aboyne, Grampian
Driest:	15.8mm Nantwich Reaseheath Hall, Cheshire
Sunniest:	142.9hrs Bude, Cornwall
Dullest:	74.9hrs Thomastown, County Fermanagh



October marks the beginning of Autumn and is usually one of the wettest and windiest months. It typically heralds the first gales - and these are especially common in the final week. October 2016 was unusually settled - and the 3rd least cyclonic since 1871. There is a school of thought that suggests severe winters are preceded by anticyclonic October's - so remember that you read it here first!

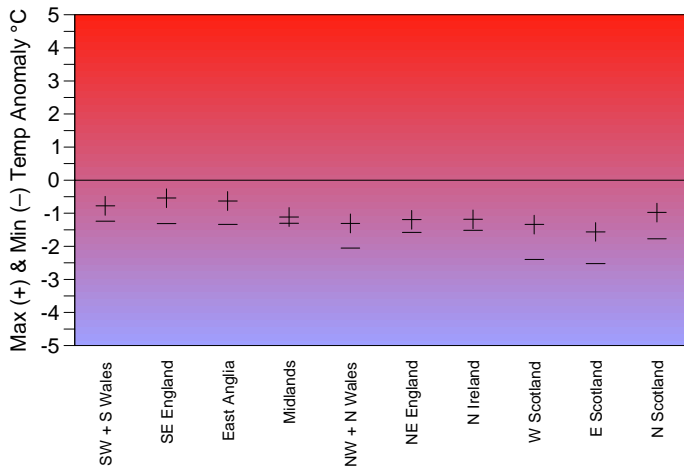
A shallow low pressure system tracked east across Wales and the Midlands on the 1st and brought heavy showers and thunderstorms to much of England and Wales. There was localised flooding in Cambridgeshire and in Kent. Pressure then built rapidly and the next couple of days were fine with East Malling, Kent receiving 11 hours sunshine on the 3rd. The high pressure gradually transferred north eastwards intensifying as it did so, and reaching 1051 hPa by the 5th - when it was centred over Norway. This left all of the UK in cool, light, easterly winds which persisted to the end of the first fortnight. There were showers down the east coast, but further north and west it was increasingly dry and sunny. It became briefly unsettled in the west from the 14th as a depression tracked north - and heavy showers dumped 74.4mm rain on Killylane, County Antrim, Northern Ireland - with 24.8mm falling within a single hour! On the 15th more heavy rain resulted in difficult driving conditions across eastern Scotland and flooding caused the cancellation of a number of events in Tayside. Easterlies once more dominated 20th-24th, as high pressure re-established itself, before it slipped south into central Europe - ushering in milder Mediterranean air from the south east. As well as being warmer, the air was also unstable and thunderstorms on the 24th affected Cornwall, Devon and Somerset, and caused some local flash flooding. Southern England saw the first real serious fog of the Autumn on the 25th and 26th and this was responsible for a spate of road accidents and delays at both of London's Airports. Sule Skerry, Northern Isles, recorded a gust of 62mph on the 28th, but everywhere further south it remained settled and very mild for the time of year. Halloween (31st) was remarkably warm. Temperatures reached 22.2°C (72°F) at Trawscoed in Ceredigion, Wales - the highest anywhere in the UK for the entire month.

October was an exceptionally fine and dry month - thanks mainly to lingering high pressure over Scandinavia which held at bay the cloud and rain bearing westerly's more typical of this time of year. The easterly wind regime most favoured the north and west for fine and dry weather - reversing the trend of recent months. Northern Scotland had its sunniest October since at least 1929. All of the west of the UK enjoyed a sunny month - but sunshine was close to normal along cloudier east coasts. Even here, where the comparatively warm North Sea triggered showers, rainfall remained below average and elsewhere it was very dry - with much of the UK recording less than half its usual rainfall. Some places in the west recorded <20mm (remarkable for what is typically amongst the wettest of months) and for the UK as a whole it was the 6th driest October in over 100 years. Temperatures were a little above average nationwide - thanks mainly to the warm final week.

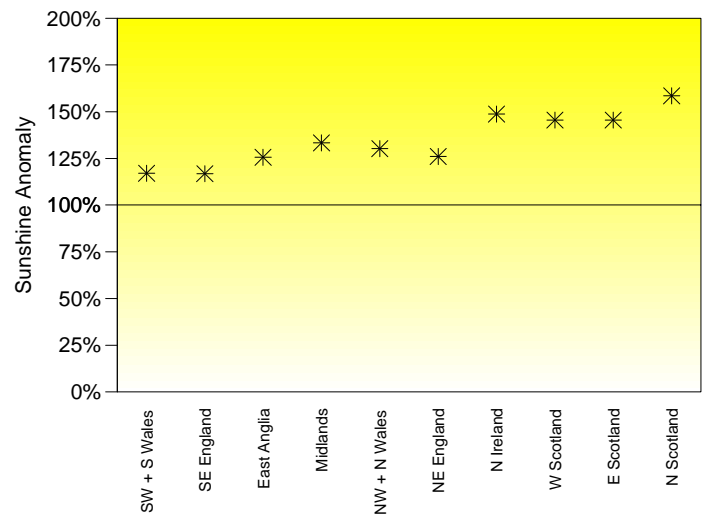
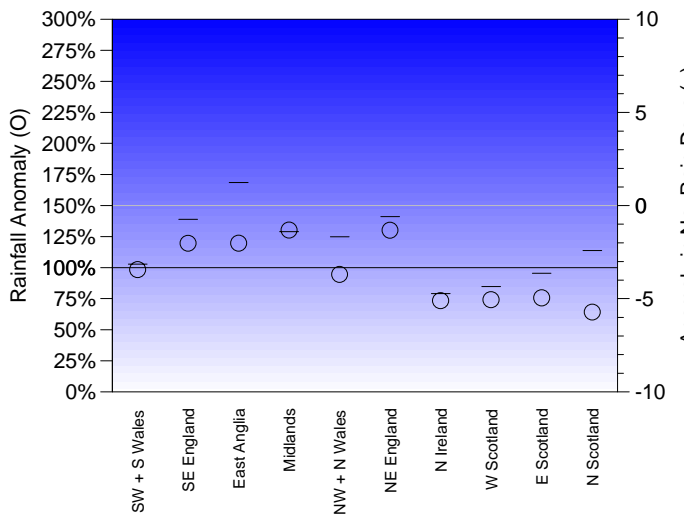
Parts of northern eastern Spain experienced torrential rain and flash flooding on the 12th. At Cabriils 220mm of rain fell in four hours - with an amazing 85mm in just half an hour. A man died after his car was swept away by torrents of raging flood water in nearby Vilassar de Mar. South eastern France was also deluged and Saint-Gervais-sur-Mare recorded a colossal 300mm.

On the other side of the Atlantic, Hurricane "Matthew" - the fiercest in almost a decade - ripped through Haiti and the Dominican Republic on the 5th. The Category 4 storm made landfall on the western tip of the island, bringing 145mph winds and storm surges that pounded coastal villages - and left 1000 people dead. By the 11th floodwaters from "Matthew" had caused at least 33 further deaths in the US - in Florida, South Carolina, Georgia and Virginia. Hot on its heels, on the 12th-13th, Hurricane "Nicole" - another Category 4 storm - lashed Bermuda. Destructive winds and torrential rain left thousands without power. This was the first time that two hurricanes of such intensity have ever occurred in the Atlantic basin during October. Meanwhile unseasonal heat baked central and eastern USA. Dodge City, Kansas, reached 39°C (101°F), on the 17th obliterating the previous record of 34°C (94°F) set in 1926.

In the western Pacific, super-typhoon "Chaba" passed just east of Korea at the start of the month. 275mm of rain triggered flooding and at least 5 deaths in the streets of Busan and 80mph winds caused power outages which affected 200,000 homes. "Chaba" then tracked to be southwest of Okinawa 3rd-6th, where heavy rain and gusts of 140mph wrought more destruction. On the 19th, torrential downpours and severe flash floods ahead of category 4 Typhoon "Sarik" destroyed 100,000 homes across Vietnam. The following day, the Philippines experienced one of its most powerful ever typhoons. "Haima" hit coastal towns facing the Pacific and packed sustained winds of 140mph and gusts of up to 200mph.



Extremes for November 2016	
Hottest:	19.0°C Cardinham (Bodmin) SAWS, Cornwall, 1st
Coldest:	-11.6°C Braemar No 2, Grampian, 21st
Most Rain:	63.0mm Dunkeswell, Devon, 21st
Most Sun:	8.5hrs Charterhall SAWS, Borders, 1st
Windiest:	84mph Shawbury, Shropshire, 17th
Warmest:	10.2°C Scilly St. Mary's SAWS, Cornwall
Coolest:	1.7°C Braemar No 2, Grampian
Wettest:	218.4mm Blencathra, Cumbria
Driest:	15.6mm Santon Downham, Norfolk
Sunniest:	97.1hrs Hurn, Dorset
Dullest:	38.0hrs Bala, Clwyd



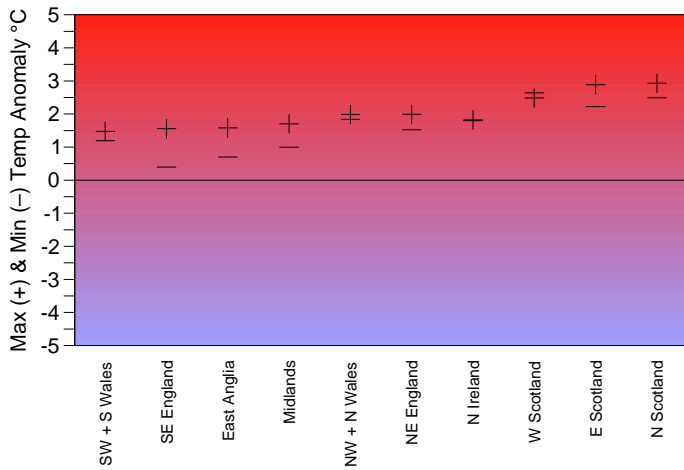
The stereotypical November day is grey, dank and rather gloomy - with mist and fog that never seems to lift. However, one of the most notable climate change traits evident in recent decades, is that November is becoming rather less dull. The month enjoys >10 hours more sunshine on average than it did just a century ago - and this year confirmed that trend.

November began quiet and mild with Cardinham (Cornwall) recording a maximum of 19°C (66.2°F) on the 1st. After that - and for the first week - it steadily turned colder from the north, as northerly winds brought some early snow to parts of Scotland and Northern England. Bingley (West Yorkshire) reported 7cm snow on the 9th leading to the closure of Leeds Bradford Airport for a time and a spate of road accidents on surrounding high roads. A milder, changeable westerly regime followed and persisted for the next week or so, with a succession of frontal systems crossing the country. On the 17th, a particularly active cold front tracking from West Wales across the Midlands to Lincolnshire produced some very strong and localised winds - which rather took forecasters by surprise. There were reports of a tornado near Aberystwyth (Ceredigion) and Shawbury (Shropshire) recorded a gust of 84mph - remarkable for so far inland. Numerous trees were felled and these caused significant disruption to roads, rail and power. Late on the 19th, the first named storm of the season 'Angus' developed in the southwest approaches and tracked northeast across southern England the following day. There were towering seas in the Channel, gales on exposed coasts (although these failed to penetrate far inland or cause much damage), and widespread heavy rain with a little flooding in South Wales and Devon (Exeter Airport recorded 27.2mm rain in one hour to 0100 on the 20th!) In contrast, northern Britain enjoyed a period calm, dry and sunny weather - although it was distinctly chilly - and cars were left stranded by snowfall across parts of northern England. On the 21st the temperature at Strathallan near Perth never rose above -1.8°C (28.8°F) Another depression crossed southern Britain 21st-23rd deluging ground already sodden from 'Angus' and triggering flooding that blocked road and rail routes across the south. Pressure steadily built during the final week and the month ended dry and sunny but with some hard night time frosts e.g. -9.0°C (15.8°F) at Benson (Oxfordshire) on the early morning of the 30th.

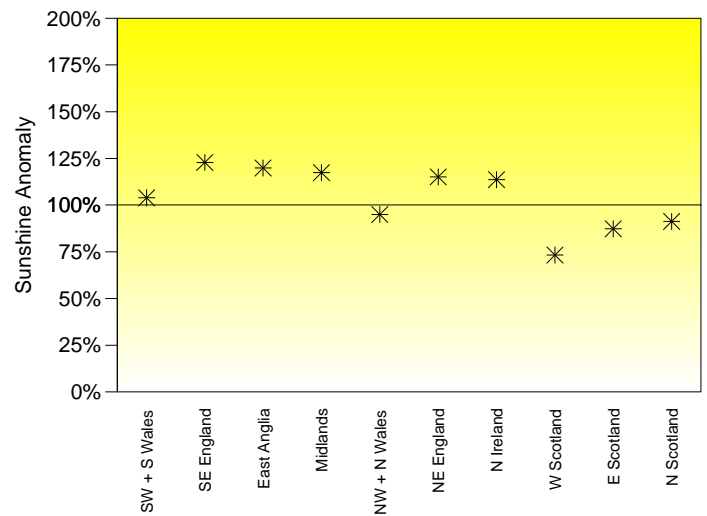
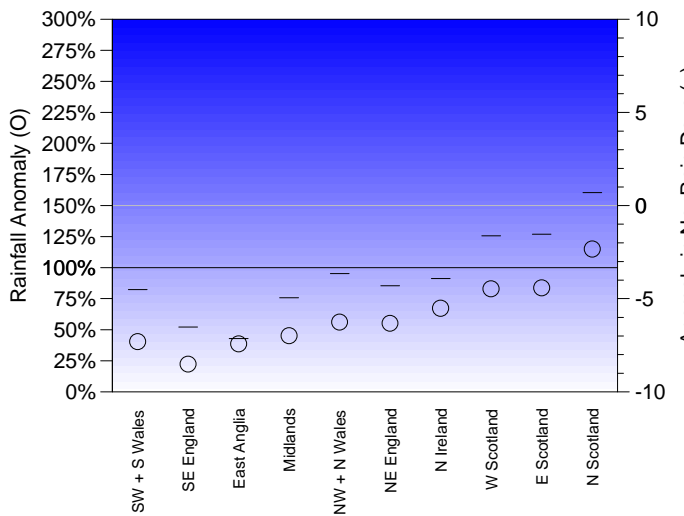
November was a cold month everywhere but especially for northwest England and central and southern Scotland, where mean temperatures were 1-2°C below the long term average. This was mainly the result of some very chilly nights, which for eastern Scotland were the coldest of any November in 30 years. Rainfall was relatively infrequent nationwide, but where it fell across the south during the 3rd week produced some prodigious totals and made for a wet month here. Further north, it remained remarkably dry and parts of central Scotland and Northern Ireland received just half their normal rainfall. Sunshine was well above average everywhere except for Cornwall and Snowdonia. Scotland enjoyed record November sunshine - with half as much again as usual - and for the UK as a whole (and despite leaden skies during the 3rd week) it was 3rd sunniest since 1929.

On the 8th heavy rain triggered flooding that destroyed bridges, inundated fields and killed at least three people in Albania's mountainous northern region. By the 16th and in a stark contrast to the early-winter snow droughts of recent seasons, the Alps had already benefited from an excellent start to the ski season. Some areas received up to 75cm of snow allowing resorts like Alpe d'Huez to open several weeks ahead of schedule. In North America there was an unprecedented dearth of snow. By mid-November about 13% of the country usually has snow cover whilst this year it was less than 1%, and confined to the highest peaks. Persistent warmth was to blame; at Fargo, North Dakota, temperatures reached 23°C (73.4°F) on the 6th, breaking the early November record of 21°C (69.8°F) set in 1887 - and on the Pacific coast, Seattle reached 21°C (69.8°F) on the 8th, a record for so late in the year. However, soon after, winter arrived with a vengeance across the north-eastern States with gargantuan 'lake burst' snowfalls in New York State 20th-21st. Total mean depths included 137cm at Redfield, 102cm at Lacuna and 95cm at Lorraine.

Tokyo recorded its first November snowfall since 1875 on the 24th and in the town of Nakashibetsu, Hokkaido, temperatures dropped to as low as -17.4°C (0.7°F). Vicious thunderstorms in South Africa 9th-11th triggered flooding that resulted in 6 fatalities. Johannesburg and Ekurhuleni were worst affected with extensive damage to homes and motor vehicles. On the 12th, violent thunderstorms with hail and hurricane-force winds swept through Brisbane, Australia. The airport was forced to close and a gust of 100mph marked the strongest wind recorded there in 30 years. On the 21st it was the turn of Melbourne and surrounding areas of the state of Victoria to be battered by terrific thunderstorms and squalls. These were responsible for thousands of pollen allergy asthma attacks ('thunderstorm asthma') which hospitalised 8,000 people and caused at least 6 deaths.



Extremes for December 2016	
Hottest:	17.0°C Hawarden, Clwyd, 7th
Coldest:	-9.2°C Aviemore, Highland, 6th
Most Rain:	87.2mm Achnagart, Highland, 31st
Most Sun:	8.0hrs Jersey St Helier, Channel Islands, 29th
Windiest:	89mph Fair Isle, Shetland, 26th
Warmest:	10.6°C Scilly St. Mary's SAWS, Cornwall
Coolest:	4.3°C Fyvie Castle, Grampian
Wettest:	477.0mm Achnagart, Highland
Driest:	8.8mm Wisley, Surrey
Sunniest:	81.0hrs Jersey Airport, Channel Islands
Dullest:	9.5hrs Loch Glascarnoch, Highland



In December the sun is at its nadir and the days shortest. The year's latest sunrise coincides with month end, but the earliest sunset occurs nearly three weeks before. The two are closest around the 21st - which marks the winter solstice. Despite the low and fleeting sun, December is rarely as chilly as January (or indeed February) and is the coldest month only about 1 year in 5. Reputedly December starts and ends stormy - with a quieter interlude between. Do not rely upon it!

December 2016 started where November left off on a very anticyclonic note. There were frosts throughout the first week and frequent overnight fog which often proved reluctant to clear. A minimum temperature of -11.0°C (12.2°F) at Cromdale (Morayshire) on the 5th proved to be the coldest night of the entire month. It became rather milder after the 6th, when high pressure moved east and ushered in a southerly airflow that persisted to the 20th. A foehn wind blowing down from the Snowdonian mountains lifted the temperature at Hawarden (Flintshire) to 17.0°C (62.6°F) on the 7th. There was a little rain, but generally it remained remarkably quiet and fog continued to cause problems especially 11th-12th and 17th-19th. It turned cyclonic from the 21st over the North of Scotland - and the arrival of Storm 'Barbara' on the 23rd brought severe gales to the Northern and Western Isles of Scotland. There were power cuts on the Islands of Lewis and Harris, and indeed further south across Wales and the Midlands. Storm 'Conor' followed on Christmas Day and Boxing Day. Cairngorm summit recorded a mean wind of 99mph around noon on the 25th and a gust of 148mph! The Northern Isles endured a period of 36 hours of continuous severe gales, and there was a gust of 94mph at Sella Ness (Shetland) on the 26th. Ferry services and island flights were widely disrupted and there were more power cuts. The storm also introduced cold air which gave parts of the Highlands a late White Christmas, with 3cm of lying snow reported at both Cromdale (Moray) and Aviemore (Inverness-shire) by the morning of the 26th. Further south, Christmas Day was exceptionally mild - with temperatures only just shy of last year - the warmest ever. From the 27th, high pressure reasserted itself across southern Britain. Fog once more became a problem and was responsible for a spate of road accidents and considerable disruption. A woman died and several others were injured in four separate crashes on the A40 in Oxfordshire on the 28th. Fog caused delays to flights at Heathrow and Luton Airports on the 29th and several football matches were postponed or abandoned due to insufficient visibility. Further north the final few days of the year were wet, mild and very windy at times. Kinlochewe (Western Ross) recorded 109.6 mm of rain in the 24 hours ending 0900 on New Years Eve.

Persistent high pressure over the near continent, made December a remarkably calm and dry month for England and Wales. The southeast received less than one quarter of its normal rainfall and London had its driest December since 1926. In contrast, and thanks to a very wet final week, rainfall was close to normal over Scotland - and a little above for the far north. It was a mild month nationwide by night and by day and average temperatures everywhere easily exceeded those of November. Scotland enjoyed unprecedented daytime warmth and in the north and west temperatures were 3°C or more above normal. Despite frequent early morning fog, it was a sunny month everywhere except for Scotland and some places in eastern England saw 50% more sunshine than usual.

Across the Atlantic during December, Galveston, Texas, received 161mm of rain on the 3rd - its heaviest ever December rainfall. Severe cold and continuous lake-effect snow affected Midwestern and north-eastern states for several days around the 11th. Perrysburg, to the east of Lake Erie, received 43cm of snow. On the 18th Aberdeen, South Dakota, recorded -38°C (-37°F) and Chicago, Illinois, -25°C (-13°F) - just 1°C short of the December record set in 1983. A further bout of wintery weather swept the USA during Christmas week. On the 25th, the Dakotas and south-west Minnesota were struck by ice storms, and 29th-30th a blizzard blanketed New England with 2 feet of snow whilst spectacular 'thundersnow' lit up Boston and Portland, Maine.

In Asia on the 12th, the first tropical cyclone of this season, 'Vardah', struck the coastal Indian city of Chennai. 90mph winds uprooted trees, overturned cars and caused extensive property damage. On the 25th-26th typhoon 'Nock-ten' lashed the northern Philippines, killing at least six people and forcing 380,000 residents to abandon Christmas celebrations - and move to safer ground. Sustained winds of 74mph and gusts of 111mph toppled electric posts, felled trees and cut power to five provinces - dimming the festivities in Asia's largest Catholic country. 300 flights were delayed or cancelled and ferries were halted, stranding more than 12,000 holidaymakers.

In northern China on the 19th a national smog red alert, forced factories to shut and transport to be halted. The same day, 1000's of miles further west, there was the extremely rare spectacle of snow falling in the Sahara Desert. Sand dunes were turned white near the desert town of Ain Sefra, Algeria - the first time snow has been recorded there since 1979. Meanwhile in Arctic Russia, even by local standards, the cold in western Siberia was extraordinary during the third week. At Bolshoe Olkhovskoe oilfield, the temperature dropped to a numbing -62°C (-80°F) establishing a new record low for the region.