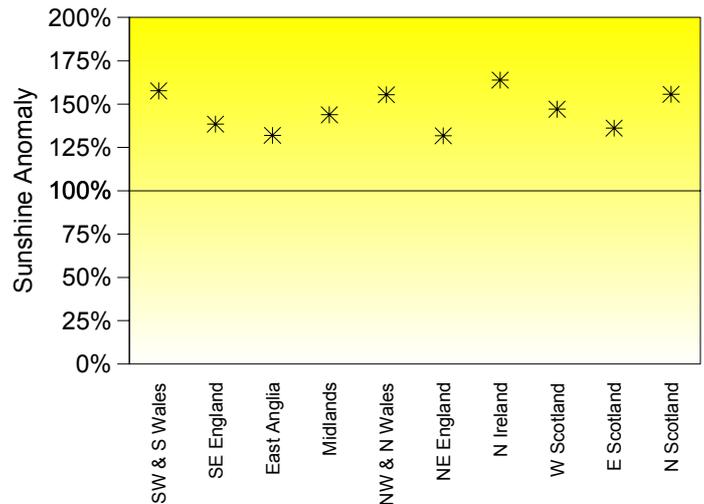
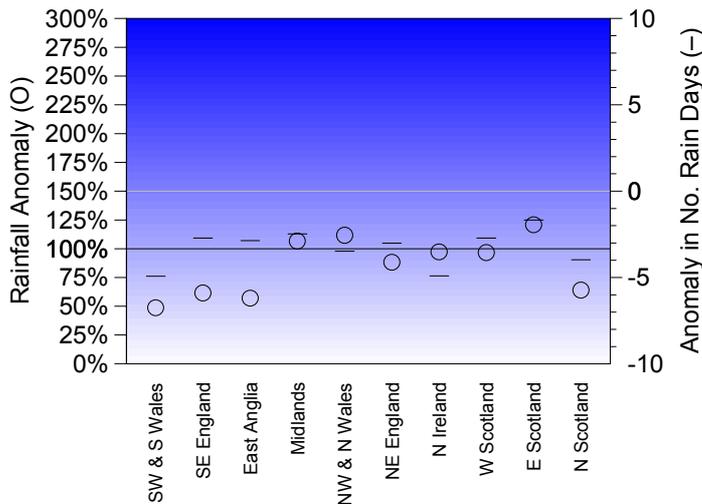


Extremes for July 2013	
Hottest:	33.5°C Northolt, Greater London, 22nd
Coldest:	3.2°C Altnaharra SAWS, Highland, 21st
Most Rain:	83.8mm Carlisle SAWS, Cumbria, 28th
Most Sun:	16.7hrs Monifieth, Tayside, 19th
Windiest:	53mph Sule Skerry MAWS, Orkney, 6th
Warmest:	21.1°C Heathrow, Greater London
Coolest:	12.2°C Fair Isle, Shetland
Wettest:	170.4mm Carlisle SAWS, Cumbria
Driest:	6.0mm Norwich Airport, Norfolk
Sunniest:	344.1hrs Radstock, Somerset
Dullest:	92.8hrs Lerwick, Shetland



July marks high summer and is usually the warmest month of the year. It also ties with August as the least windy, but this does not mean that fine weather can be relied upon. In fact, there has been a recent run of cool, cloudy and damp Julys. This year however bucked the trend and was remarkably warm....

Weakening fronts gave a little rain during the first four days, but by the 5th high pressure was dominant and remained so until the 23rd, giving an exceptionally long spell of warm and dry weather. Cloud occasionally affected northern Scotland and the east coast of England, but otherwise there were few interruptions to the abundant sunshine. 28°C (82°F) was exceeded somewhere in England every day from the 6th to the 23rd and 30°C (86°F) was exceeded for seven successive days from the 13th to the 19th. Interestingly, the warmth was not confined to England; Porthmadog, Gwynedd, achieved 31.4°C (88°F) on the 19th and Glenlee, Kirkcubrightshire, notched up 30.5°C (87°F) on the same day, with 30.1°C (86°F) at Castledearg, County Tyrone. More cloud in some areas made it somewhat cooler on the 20th and 21st, but the heat soon returned, culminating in 33.5°C (92°F) at both Northolt and Heathrow on the 22nd - the month's highest recorded temperature. The ground in many areas became tinder dry and wild fires were sparked off across southern England. One such fire led to major traffic delays on the M25 near St Albans on the evening of the 22nd. By this point in the month, the anticyclone had retreated to Scandinavia and thundery troughs approached the UK. Vivid displays of altocumulus castellanus (some by moonlight) on the evening of the 22nd set the stage for the heat to end with a bang - and the 23rd was marked by widespread showers and thunderstorms. Train and tram services suffered disruption from lightning strikes in Birmingham, Manchester and Edinburgh, and there was some damage to property. A deluge in Nottingham gave 36mm in one hour in the late afternoon and caused localised flooding, while at Pershore (Worcs.) a gargantuan 56.4mm fell in 12 hours - just short of the monthly average of 61mm! The weather was less settled during the final week, although it remained warm. Heavy rain late on the 27th led to localised flooding in parts of northern England e.g. in Carlisle (Cumbria) which recorded a colossal 83.8mm in 24 hours to 0900 UTC on the 28th. A band of thundery showers reached the Pembrokeshire coast shortly after 0500 UTC on the 29th and tracked eastwards giving torrential downpours, squalls, lightning and hail. 21mm or rain fell in a late-morning thunderstorm at Lyneham (Wiltshire), and there was a gust of 52mph at the Needles Old Battery (Isle of Wight). On the 31st, a warm front moved erratically northwards, bringing another surge of very warm and humid air behind it.

Both sunshine amounts and temperatures were well above normal everywhere, and over the UK as a whole, it was the third sunniest July in a series from 1929, and the third warmest in a series from 1910, beaten only by 2006 and 1983. While it was a dry month overall with little rain in the first three weeks, the subsequent thundery downpours meant that rainfall in some central areas was near or above average.

The UK was not alone in experiencing hot, thundery weather during July. Following a two week heat wave, violent thunderstorms swept Europe in the last ten days of the month. In Germany, hailstones as large as tennis balls bombarded the village of Wassel in Sehnte on the 27th causing millions of Euros of damage to roofs, windows, garden furniture and vehicles. Devastating hailstorms also lacerated vineyards in the Burgundy wine region of France on the 23rd, causing catastrophic damage over a 20km stretch of the Beaune region. Some vineyards lost 90% of their vintage within minutes as hail tore grapes from vines & pitted the remainder. Further southwest, on the 26th, Bordeaux was pummelled by a massive thunderstorm which dumped 63mm of rain in under an hour and was accompanied by winds of over 100mph which uprooted trees throughout the Medoc region. Power outages were widespread and a trail of felled trees and debris extended from as far south as Margaux, all the way north to Pauillac. The storm also unleashed a torrent of hail around Libourne.

In Canada, about 50,000 people lost power on the 8th after a severe thunderstorm flooded Toronto. 106 mm rain was recorded at Toronto Pearson Airport and several major roads and subway stations were flooded causing thousands of passengers to become stranded and traffic chaos. In the northeast USA, multiple days and nights of heat, high humidity and light winds produced sauna-like conditions. Overnight 18th-19th temperatures did not drop below 27°C (81°F) in New York City, Philadelphia, Baltimore and Washington. In Traverse City, Michigan, the overnight 'low' was 28°C (82°F)! In Washington, D.C., temperatures failed to drop below 26.5°C (80°F) for four nights in a row. Bergenfield, New Jersey, recorded a high of 37.8°C (100°F) on the 19th.

After days of torrential rainfall in western China, flooding and landslides killed 31 people on the 12th. Over 300 mm of rain fell across Wenjiang between the 8th and the 11th. In Zhongxing, homes and bridges were destroyed by the deluge and in Sichuan Province, flooding killed 86 people. In the coastal provinces of Fujian and Zhejiang, flights and train services were cancelled and fishing boats recalled to shore as waves as high as 10 metres lashed the coast. Seoul, the capital city of South Korea was also inundated, collecting 475mm of rain during the first 18 days of July - more than 200% of normal.