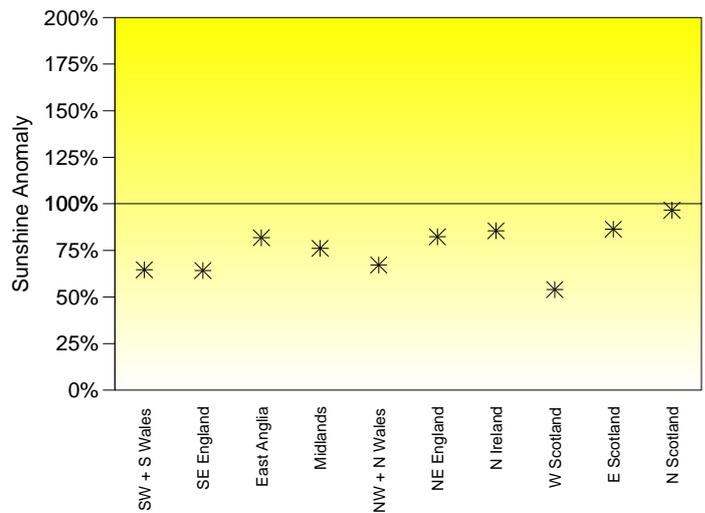
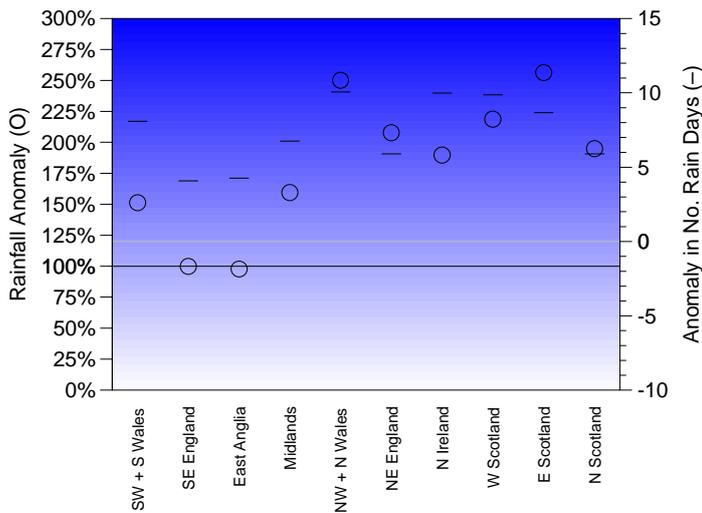


Extremes for December 2015		
Hottest:	17.1°C	Gravesend Broadness SAMOS, Kent, 19th
Coldest:	-7.0°C	Kinbrace, Highland, 13th
Most Rain:	201.8mm	Shap SAWS, Cumbria, 5th
Most Sun:	7.0hrs	Jersey St Helier, Channel Islands, 9th
Windiest:	90mph	Capel Curig SAWS, Gwynedd, 5th
Warmest:	12.1°C	St Catherines Point, Isle of Wight
Coolest:	4.2°C	Braemar No 2, Grampian
Wettest:	839.4mm	Shap SAWS, Cumbria
Driest:	40.2mm	Charsfield, Suffolk
Sunniest:	50.5hrs	Jersey Airport, Channel Islands
Dullest:	8.9hrs	Loch Glascarnoch, Highland



December marks the start of winter, but despite the sun being at its nadir, is rarely as cold as January or February. Interestingly, whilst the solstice (shortest day) normally falls around the 21st, the earliest sunset actually occurs a few days before - and the latest sunrise a couple of weeks after. Because the sun is low and scarce, it is incapable of imparting much heat. Warmth this late in the year is inevitably the result of imported air - and so often occurs in overcast conditions or even at night. There is some tendency for Decembers to start and end stormy - with a period of quieter colder weather between - but do not rely upon it!

December 2015 began mild, wet and windy for most of the UK, although snow and ice affected travel over central Scotland on the 2nd. On the 4th the approach of Storm 'Desmond' was heralded by increasingly heavy and persistent rain in the north and west. As it tracked north east across the country on the 5th, 'Desmond' brought storm force gusts and record breaking rainfall to the Lake District. Thirlmere, Cumbria recorded 264.4mm of rain in the 24 hours ending 0900 on the 6th. The 48 hour total ending same time (405mm) was even more remarkable, unprecedented for the UK, and equivalent to a typical annual total for many places! At Honister Pass, Cumbria, 341.4mm of rain in 24 hours ending 1800 on the 5th established a new UK 24 hour record. Unsurprisingly, serious flooding ensued with Keswick, Kendal, Cockermouth and Carlisle, worst affected. There was widespread disruption to road and rail transport with several bridges washed away and two fatalities. The wind and rain eased on the 6th but it remained unsettled over following days and further episodes of heavy rain caused localised flooding across the north west on the 10th and 12th. Rain then turned to snow in the north east and early on the 13th, temperatures dipped to -8.7°C (16.3°F) at Dalwhinnie (Inverness-shire) and remained below freezing all day across central Scotland. There was significant snow fall over higher ground and by the 14th Aviemore (Inverness-shire) had 16cm lying - much to the delight of skiers. A rapid thaw however soon followed as mild air spread to all parts. There were some remarkably warm temperatures: Teignmouth, Devon and Achnagart, Highland both reported maxima of 17.2°C (63°F) on the 16th. It remained mild, but very unsettled over the next few days with frequent rain and strong winds. The 19th and the 22nd were particularly wet with North Wales and the north west again baring the brunt - and leaving these areas primed for further flooding. On the 23rd Storm 'Eva' formed and brought widespread gales to Scotland - with heavy and sometimes thundery showers that continued into the 24th. For much of Wales and northern England, rainfall continued unabated through Christmas Day and Boxing Day - culminating in major flooding across Lancashire and Yorkshire. Tadcaster, Hebden Bridge and Mytholmroyd were all badly affected and 3,500 properties were flooded in York when the River Foss burst its banks. 11,000 homes lost power in Rochdale, Greater Manchester and several roads were closed due to standing water. Around 500 properties were also flooded in Leeds. 48-hour rainfall totals to 0900 GMT on the 27th included 210.6mm at Capel Curig (Gwynedd). The 27th and 28th offered a brief rest bite of mild, dry and calmer weather before another storm - 'Frank' approached late on the 29th. This brought severe gales to the north (e.g. 77 mph at Loftus, Cleveland, 85mph on South Uist), and torrential rain that was worst over central and southern Scotland - and the cause of more flooding. The border towns of Dumfries, Hawick and Peebles were badly affected and the villages of Moffat and Carsphairn cut off. In South Ayrshire 12 passengers had to be airlifted from a bus stuck in flood water and 100 people had to be evacuated from their homes in Ballater, Aberdeenshire. Elsewhere, thousands of homes across Yorkshire experienced power cuts and fallen trees blocked roads in Northern Ireland. By month end, the Association of British Insurers (ABI) estimated the final bill for the flood damage caused by storms Desmond, Eva and Frank to homes, businesses and motor vehicles to be £1.3 billion.

For most of December, the UK was under the persistent influence of warm, moist tropical air - diverted to our latitude by a raging jet stream. It made for an incredibly mild month - for central England the warmest December since 1659. Average temperatures were typically 4°C above average - and in southern England, 5°C or even 6°C - making them more typical of May! Most of England and Wales was devoid of any overnight frost. Just as remarkable, and following from an exceptionally wet November, was the prodigious rainfall. For the UK as a whole it was the wettest December - and indeed the wettest calendar month ever. This however disguises significant local variation, with the headline borne by record amounts of rainfall in Wales, the north and west which sometimes totalled quadruple the average. In contrast, rainfall for the south east and East Anglia was entirely normal. Sunshine was in short supply everywhere - and for the UK as a whole, it was the dullest month in a decade.

Other European countries also shared the exceptional warmth. In Finland, all-time December temperature records were broken twice: on the 6th Åland reached 11.1°C (52°F) and on the 20th Kokemäki reported 11.2°C (52.2°F). It was the warmest December in Brussels (Uccle) since records began in 1833 and, remarkably, warmer also than the warmest ever March! (1991). Severe downpours associated with storm Desmond, 5th-6th caused many homes in the south of Norway to be evacuated. In Rogaland, torrential rain left much of the town of Vikeså underwater and several warehouses were swept away in the torrent.

December warmth was even more outstanding in central and eastern USA. New York's Central Park failed to dip to freezing the entire month - the first time in December since records began in 1871. On Christmas Eve both New York City and Albany, New York state, soared to 22°C (72°F). At Albany this represented the highest ever temperature to be experienced in winter. Around the same time in central and southern America a massive storm system spawned tornadoes in Texas, flash-floods in Oklahoma and blizzards in New Mexico. Together, these were responsible for at least 43 deaths. Earlier in the month, on the 6th, Portland, Oregon experienced its wettest day ever. A deluge brought 82mm of rain which triggered landslides and flooding throughout northern Oregon and southern Washington.

In the southern hemisphere - where it is summer, South Africa also saw record-breaking heat during December - and its most severe drought since 1992. The capital, Pretoria, reached 41°C (106°F) on the 7th - way above the previous December high of 37°C set in 2003. In contrast to all of this, in Australia, the temperature dipped to 7°C (44°F) on the 8th at Pearce near Perth - making it the coldest December day on record. The 16th saw a devastating tornado rip through south Sydney with 140mph winds leaving behind a trail of destruction. Syria also experienced record cold early in December. On the 8th, temperatures in Damascus fell to -9°C (16°F). Widespread frosts also affected Saudi Arabia.