



Met Office

Extremes

National Meteorological Library and Archive
Factsheet 9 — Weather extremes

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Introduction

Have you ever wondered about the weather around the United Kingdom and perhaps the world? Would you like to know where the wettest place in the world can be found? Or the hottest place? Maybe the coldest place?

This Weather extremes factsheet has been designed to answer all of those questions. To help you find the information, we have listed each element as follows: temperature, rainfall, bright sunshine, wind, snow, air pressure and tornadoes.

Note, unless otherwise stated, the source of all the overseas data used in this factsheet is the World Meteorological Organization. Data for the United Kingdom is from the Met Office.

Extremes of temperature

Temperature: the degree or intensity of heat present in a substance or object.

Temperature is measured by a thermometer. There are many types; perhaps the most familiar are thermometers using mercury or alcohol. For more information on thermometers, please see Factsheet 17 – Observations on land.

The scale of temperature used by the Met Office for measuring air temperature is Celsius. This was adopted by the World Meteorological Organization as the standard unit of temperature measurement and formally adopted by the Met Office on 1 January 1961. Therefore all temperatures listed within this factsheet will be in degrees Celsius (°C).

As the United Kingdom has several mountain ranges, it should be noted that temperature decreases by about 0.5 °C for each 100 m increase in height above mean sea-level. In terms of the annual average 1991-2020 mean temperature, the warmest station is St Mary's Airport on Isles of Scilly with a mean temperatures of 12.1 °C and Kindrogan in Perth and Kinross, is the coldest low-level (below 1000 feet) station with a mean temperature of 6.9 °C.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Max temp (°C)	Min temp (°C)	Max temp (°C)	Min temp (°C)	Max temp (°C)	Min temp (°C)	Max temp (°C)	Min temp (°C)	Max temp (°C)	Min temp (°C)
Jan	6.7	1.2	7.2	1.6	7.0	1.7	5.5	0.3	7.2	1.7
Feb	7.2	1.1	7.8	1.5	7.4	1.6	5.9	0.3	7.8	1.6
Mar	9.2	2.2	10.1	2.7	9.3	2.6	7.6	1.2	9.5	2.4
Apr	12.0	3.7	13.1	4.3	12.2	4.1	10.3	2.8	12.0	3.9
May	15.1	6.3	16.2	6.9	15.2	6.6	13.4	5.0	14.8	6.2
Jun	17.7	9.1	19.0	9.8	17.7	9.3	15.6	7.9	17.2	8.9
Jul	19.6	11.0	21.2	11.8	19.3	11.3	17.3	9.7	18.6	10.8
Aug	19.3	11.0	20.9	11.8	19.0	11.2	17.0	9.6	18.3	10.7
Sep	16.9	9.0	18.1	9.7	16.9	9.3	14.8	7.9	16.3	8.9
Oct	13.1	6.4	14.1	7.1	13.3	6.9	11.3	5.1	12.9	6.3
Nov	9.4	3.6	10.2	4.1	9.9	4.2	8.0	2.5	9.7	3.8
Dec	7.0	1.4	7.6	1.9	7.6	2.2	5.8	0.4	7.5	1.9
Year	12.4	5.3	13.5	5.9	12.6	5.7	10.7	4.2	12.4	5.4

Table 1. 1991–2020 mean maximum/minimum temperature values for the United Kingdom.

Maximum temperature – Daily maximum temperature is the highest temperature reached at a particular location between two fixed times 24-hours apart, usually 0900 GMT to 0900 GMT.

Month	Value	Location (England)	Date
January	17.6 °C	Eynsford (Kent)	27 January 2003
February	21.2 °C	Kew Gardens (London)	26 February 2019
March	25.6 °C	Mepal (Cambridgeshire)	29 March 1968
April	29.4 °C	Camden Square (London)	16 April 1949
May	32.8 °C	Camden Square (London) Horsham (West Sussex) Tunbridge Wells (Kent) Regent's Park (London)	22 May 1922 29 May 1944 29 May 1944 29 May 1944
June	35.6 °C	Mayflower Park, Southampton (Hampshire) Camden Square (London)	28 June 1976 29 June 1957
July	40.3 °C	Coningsby (Lincolnshire)	19 July 2022
August	38.5 °C	Faversham (Kent)	10 August 2003
September	35.6 °C	Bawtry – Hesley Hall (South Yorkshire)	2 September 1906
October	29.9 °C	Gravesend (Kent)	1 October 2011
November	21.1 °C	Chelmsford (Essex) Clacton (Essex) Cambridge (Cambridgeshire) Mildenhall (Suffolk)	5 November 1938
December	17.7 °C	Chivenor (Devon) Penkridge (Staffordshire)	2 December 1985 11 December 1994

Table 2. Monthly extreme maximum temperature values for England.

Month	Value	Location (Wales)	Date
January	18.3 °C	Aber (Gwynedd)	10 January 1971 27 January 1958
February	20.8 °C	Porthmadog (Gwynedd)	26 February 2019
March	23.9 °C	Prestatyn (Denbighshire) Ceinws (Powys)	29 March 1965
April	26.2 °C	Gogerddan (Ceredigion)	16 April 2003
May	30.6 °C	Usk (Monmouthshire)	29 May 1944
June	33.7 °C	Usk (Monmouthshire)	18 June 2000
July	37.1 °C	Hawarden Airport (Flintshire)	18 July 2022
August	35.2 °C	Hawarden Bridge (Flintshire)	2 August 1990
September	32.3 °C	Hawarden Bridge (Flintshire)	1 September 1906
October	28.2 °C	Hawarden Airport (Flintshire)	1 October 2011
November	22.4 °C	Trawsgoed (Ceredigion)	1 November 2015
December	18.0 °C	Aber (Gwynedd)	18 December 1972

Table 3. Monthly extreme maximum temperature values for Wales.

Month	Value	Location (Scotland)	Date
January	18.3 °C	Aboyne (Aberdeenshire) Inchmarlo (Kincardineshire)	26 January 2003
February	18.3 °C	Aboyne (Aberdeenshire)	21 February 2019
March	23.6 °C	Aboyne (Aberdeenshire)	27 March 2012
April	27.2 °C	Inverailort (Highland)	17 April 2003
May	30.9 °C	Inverailort (Highland)	25 May 2012
June	32.2 °C	Ochertyre (Perth and Kinross)	18 June 1893
July	34.8 °C	Charterhall (Scottish Borders)	19 July 2022
August	32.9 °C	Greycrook (Scottish Borders)	9 August 2003
September	32.2 °C	Gordon Castle (Moray)	1 September 1906
October	27.4 °C	Tillypronie (Aberdeenshire)	3 October 1908
November	20.6 °C	Edinburgh Royal Botanic Garden Liberton (Edinburgh)	4 November 1946
December	18.7 °C	Achfary (Sutherland)	28 December 2019

Table 4. Monthly extreme maximum temperature values for Scotland.

Month	Value	Location (Northern Ireland)	Date
January	16.4 °C	Knockarevan (Co. Fermanagh)	26 January 2003
February	17.8 °C	Bryansford (Co. Down)	13 February 1998
March	21.8 °C	Armagh (Co. Armagh)	29 March 1965
April	24.5 °C	Boom Hall (Co. Londonderry)	26 April 1984
May	28.3 °C	Lisburn (Co. Antrim)	31 May 1922
June	30.8 °C	Knockarevan (Co. Fermanagh)	30 June 1976
July	31.3 °C	Castledearg (Co. Tyrone)	21 July 2021
August	30.6 °C	Tandragee Ballylisk (Co. Armagh)	2 August 1995
September	27.6 °C	Armagh (Co. Armagh)	1 September 1906
October	24.1 °C	Strabane (Co. Tyrone)	10 October 1969
November	18.5 °C	Murlough (Co. Down)	3 November 1979 1 November 2007 10 November 2015
December	16.7 °C	Ballykelly (Co. Londonderry)	2 December 1948

Table 5. Monthly extreme maximum temperature values for Northern Ireland.

Minimum temperature – The lowest temperature attained at a particular location between two fixed times 24-hours apart, usually 0900 GMT to 0900 GMT.

The lowest recorded temperature ever recorded in the United Kingdom was $-27.2\text{ }^{\circ}\text{C}$ at Braemar (Aberdeenshire) on 11 February 1895 and 10 January 1982 and at Altnaharra (Highland) on 30 December 1995.

Month	Value	Location (England)	Date
January	$-26.1\text{ }^{\circ}\text{C}$	Newport (Shropshire)	10 January 1982
February	$-22.2\text{ }^{\circ}\text{C}$	Scaleby (Cumbria) Ketton (Leicestershire)	19 February 1892 8 February 1895
March	$-21.1\text{ }^{\circ}\text{C}$	Houghall (Co. Durham)	4 March 1947
April	$-15.0\text{ }^{\circ}\text{C}$	Newton Rigg (Cumbria)	2 April 1917
May	$-9.4\text{ }^{\circ}\text{C}$	Lynford (Norfolk)	4 May 1941 11 May 1941
June	$-5.6\text{ }^{\circ}\text{C}$	Santon Downham (Norfolk)	1 June 1962 3 June 1962
July	$-1.7\text{ }^{\circ}\text{C}$	Kielder Castle (Northumberland)	17 July 1965
August	$-2.0\text{ }^{\circ}\text{C}$	Kielder Castle (Northumberland)	14 August 1994
September	$-5.6\text{ }^{\circ}\text{C}$	Santon Downham (Norfolk) Grendon Underwood (Buckinghamshire)	30 September 1969
October	$-10.6\text{ }^{\circ}\text{C}$	Wark (Northumberland)	17 October 1993
November	$-16.1\text{ }^{\circ}\text{C}$	Scaleby (Cumbria)	30 November 1912
December	$-25.2\text{ }^{\circ}\text{C}$	Shawbury (Shropshire)	13 December 1981

Table 6. Monthly extreme minimum temperature values for England.

Month	Value	Location (Wales)	Date
January	$-23.3\text{ }^{\circ}\text{C}$	Rhayader (Powys)	21 January 1940
February	$-20.0\text{ }^{\circ}\text{C}$	Welshpool (Powys)	2 February 1954
March	$-21.7\text{ }^{\circ}\text{C}$	Corwen (Denbighshire)	3 March 1965
April	$-11.2\text{ }^{\circ}\text{C}$	Corwen (Denbighshire)	11 April 1978
May	$-6.2\text{ }^{\circ}\text{C}$	St Harmon (Powys)	14 May 2020
June	$-4.0\text{ }^{\circ}\text{C}$	St Harmon (Powys)	8 June 1985
July	$-1.5\text{ }^{\circ}\text{C}$	St Harmon (Powys)	9 July 1984
August	$-2.8\text{ }^{\circ}\text{C}$	Alwen (Conwy)	29 August 1959
September	$-5.5\text{ }^{\circ}\text{C}$	St Harmon (Powys)	19 September 1986
October	$-9.4\text{ }^{\circ}\text{C}$	Rhayader, Penvally (Powys)	26 October 1931
November	$-18.0\text{ }^{\circ}\text{C}$	Llysdinam (Powys)	28 November 2010
December	$-22.7\text{ }^{\circ}\text{C}$	Corwen (Denbighshire)	13 December 1981

Table 7. Monthly extreme minimum temperature values for Wales.

Month	Value	Location (Scotland)	Date
January	-27.2 °C	Braemar (Aberdeenshire)	10 January 1982
February	-27.2 °C	Braemar (Aberdeenshire)	11 February 1895
March	-22.8 °C	Logie Coldstone (Aberdeenshire)	14 March 1958
April	-15.4 °C	Eskdalemuir (Dumfriesshire)	2 April 1917
May	-8.8 °C	Braemar (Aberdeenshire)	1 May 1927
June	-5.6 °C	Dalwhinnie (Inverness-shire)	9 June 1955
July	-2.5 °C	Lagganlia (Inverness-shire)	15 July 1977
August	-4.5 °C	Lagganlia (Inverness-shire)	21 August 1973
September	-6.7 °C	Dalwhinnie (Inverness-shire)	26 September 1942
October	-11.7 °C	Dalwhinnie (Inverness-shire)	28 October 1948
November	-23.3 °C	Braemar (Aberdeenshire)	14 November 1919
December	-27.2 °C	Altnaharra (Highland)	30 December 1995

Table 8. Monthly extreme minimum temperature values for Scotland.

Month	Value	Location (Northern Ireland)	Date
January	-17.5 °C	Magherally (Co. Down)	1 January 1979
February	-15.6 °C	Garvagh, Moneydig (Co. Londonderry)	20 February 1955
March	-14.8 °C	Katesbridge (Co. Down)	2 March 2001
April	-8.5 °C	Killylane (Co. Antrim)	10 April 1998
May	-6.5 °C	Moydamlaght (Co. Londonderry)	7 May 1982
June	-2.4 °C	Lough Navar Forest (Co. Fermanagh)	4 June 1991
July	-1.1 °C	Lislap Forest (Co. Tyrone)	17 July 1971
August	-1.9 °C	Katesbridge (Co. Down)	24 August 2014
September	-3.7 °C	Katesbridge (Co. Down)	27 September 2020
October	-7.2 °C	Lough Navar Forest (Co. Fermanagh)	18 October 1993
November	-12.2 °C	Lisburn (Co. Antrim)	15 November 1919
December	-18.7 °C	Castleberg (Co. Tyrone)	24 December 2010

Table 9. Monthly extreme minimum temperature values for Northern Ireland.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	9.0 °C	1916	9.7 °C	1916	9.1 °C	1916	8.2 °C	1989	9.6 °C	1916
February	10.0 °C	2019	10.9 °C	2019	10.4 °C	2019	8.7 °C	1998	10.4 °C	1998
March	12.1 °C	2012	13.3 °C	1938	12.1 °C	1948	10.9 °C	2012	12.0 °C	1938
April	15.7 °C	2011	16.9 °C	2011	15.8 °C	2011	13.6 °C	2011	15.5 °C	2011
May	17.2 °C	2018	18.4 °C	2018	17.3 °C	1896	15.6 °C	2018	17.2 °C	2008
June	20.5 °C	1940	22.0 °C	1976	20.5 °C	2018	18.8 °C	1940	21.4 °C	1887
July	23.3 °C	2006	25.2 °C	2006	23.1 °C	1983	20.4 °C	2006	21.8 °C	2013
August	22.8 °C	1995	24.3 °C	1995	23.5 °C	1995	20.7 °C	1947	22.1 °C	1995
September	19.4 °C	1895	21.1 °C	1895	19.9 °C	1895	16.8 °C	2006	18.2 °C	1895
October	15.6 °C	1921	17.2 °C	1921	16.2 °C	1921	13.6 °C	1908	15.1 °C	1969
November	11.6 °C	2011	12.2 °C	2011	11.9 °C	2011	10.5 °C	2011	11.7 °C	1994
December	10.7 °C	2015	12.0 °C	2015	11.5 °C	2015	8.5 °C	2016	9.9 °C	2015

Table 10. Highest average monthly maximum temperatures (°C) across the United Kingdom.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	-4.5 °C	1963	-4.9 °C	1963	-5.2 °C	1963	-4.4 °C	1895	-2.8 °C	1963
February	-6.0 °C	1895	-5.8 °C	1895	-6.4 °C	1895	-6.4 °C	1895	-4.2 °C	1895
March	-1.9 °C	1892	-1.7 °C	1892	-1.7 °C	1892	-3.2 °C	1947	-1.3 °C	1919
April	0.2 °C	1917	0.5 °C	1917	0.6 °C	1887	-0.8 °C	1922	-0.5 °C	1922
May	3.5 °C	1902	4.0 °C	1902	3.7 °C	1885	2.4 °C	1902	3.5 °C	1885
June	6.6 °C	1972	7.0 °C	1916	6.5 °C	1972	5.1 °C	1927	5.8 °C	1927
July	8.4 °C	1922	9.1 °C	1907	9.0 °C	1922	7.2 °C	1965	8.1 °C	1922
August	8.1 °C	1912	8.9 °C	1912	8.2 °C	1885	6.6 °C	1885	7.2 °C	1912
September	5.9 °C	1986	6.2 °C	1986	5.7 °C	1986	4.5 °C	1918	5.8 °C	1918
October	2.5 °C	1895	2.7 °C	1905	2.5 °C	1896	1.4 °C	1896	2.7 °C	1892
November	-0.7 °C	1915	-0.5 °C	1915	-1.0 °C	1915	-1.6 °C	1919	-1.1 °C	1919
December	-4.1 °C	2010	-3.6 °C	2010	-4.1 °C	2010	-4.9 °C	2010	-4.3 °C	2010

Table 11. Lowest average monthly minimum temperatures (°C) across the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	9.88 °C	2014	10.75 °C	2014	10.09 °C	2014	8.43 °C	2014	9.77 °C	2007
2	9.70 °C	2006	10.57 °C	2006	9.93 °C	2006	8.20 °C	2006	9.63 °C	2006
3	9.62 °C	2020	10.56 °C	2020	9.92 °C	2020	8.18 °C	2003	9.58 °C	2014
4	9.61 °C	2011	10.54 °C	2011	9.89 °C	2011	8.16 °C	2007	9.57 °C	2005
5	9.56 °C	2007	10.43 °C	2018	9.88 °C	2017	8.09 °C	2004	9.55 °C	1949
6	9.53 °C	2017	10.39 °C	2017	9.85 °C	2007	8.09 °C	1997	9.53 °C	1997
7	9.47 °C	2003	10.34 °C	2007	9.78 °C	1949	8.06 °C	2005	9.48 °C	2017
8	9.45 °C	2018	10.29 °C	1990	9.76 °C	1990	8.02 °C	2011	9.45 °C	1945
9	9.44 °C	2004	10.28 °C	2002	9.75 °C	1999	8.02 °C	2020	9.43 °C	2004
10	9.44 °C	2002	10.26 °C	1999	9.71 °C	2018	8.01 °C	2017	9.40 °C	1921

Table 12. Ten highest annual mean temperatures (°C) across the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	7.02 °C	1892	7.68 °C	1892	7.46 °C	1892	5.70 °C	1892	7.47 °C	1892
2	7.28 °C	1888	7.82 °C	1888	7.52 °C	1888	5.94 °C	1886	7.60 °C	1909
3	7.36 °C	1885	7.95 °C	1963	7.52 °C	1887	5.96 °C	1885	7.63 °C	1979
4	7.40 °C	1963	7.97 °C	1887	7.57 °C	1885	6.15 °C	1919	7.66 °C	1919
5	7.42 °C	1919	8.10 °C	1919	7.57 °C	1963	6.18 °C	1979	7.72 °C	1986
6	7.45 °C	1886	8.10 °C	1962	7.74 °C	1895	6.18 °C	1888	7.78 °C	1907
7	7.51 °C	1887	8.10 °C	1891	7.77 °C	1917	6.20 °C	1895	7.79 °C	1886
8	7.52 °C	1909	8.11 °C	1885	7.78 °C	1919	6.32 °C	1909	7.79 °C	1963
9	7.52 °C	1917	8.14 °C	1917	7.79 °C	1962	6.37 °C	1917	7.81 °C	1885
10	7.55 °C	1895	8.17 °C	1909	7.86 °C	1979	6.37 °C	1963	7.82 °C	1915

Table 13. Ten lowest annual mean temperatures (°C) across the United Kingdom.

Note: These tables of monthly and annual temperature averages above have been compiled using the Met Office temperature series which started in 1884.

Temperatures extremes of the world

- Highest temperature is 56.7 °C at Furnace Creek Ranch, California (USA) on 10 July 1913.
- The lowest temperature is -89.2 °C at Vostok, Antarctica on 21 July 1983.

This and further information is published on the web link, <http://wmo.asu.edu/>



Furnace Creek, California (USA)

Extremes of rainfall

Rain: the total liquid product of precipitation and condensation from the atmosphere, as received and measured in a rain-gauge.

The total amount of precipitation which reaches the ground in a stated period at any place is expressed as the depth to which it would cover a horizontal surface at that place if there were no loss by evaporation, percolation or run-off. The precipitation may be liquid (rain or drizzle) or frozen (snow, snow pellets, snow grains, hail, small hail, ice pellets, diamond dust) or a mixture (rain and snow, drizzle and snow, rain and melting snow). Precipitation is described as freezing rain or freezing drizzle when the drops of rain or drizzle have temperatures below 0 °C and freeze on impact with the ground or with objects on the Earth's surface.

The Met Office uses the millimetre as the official measurement of rainfall. This was adopted by the International Meteorological Organization (forerunner of the WMO) as the standard unit of rainfall measurement and formally adopted by the Met Office on 1 May 1914*. Therefore all rainfall amounts listed within this factsheet are in millimetres (mm).

*Tenth Annual Report of the Meteorological Committee – year ending 31 March 1915.

Classification of rainfall

Rainfall is classified into three general types:

- Orographic – rain which is caused or enhanced by the presence of high ground.
- Cyclonic – rain that is caused by the large-scale vertical motion associated with synoptic features such as depressions and weather fronts.
- Convective – rain that is caused by the vertical motion of an ascending mass of air which is warmer than its environment, the horizontal dimension of such an air mass is generally of the order of 15 km or less and forms a typical cumulonimbus cloud.

Convective rain is generally of a greater intensity than either of the two main classes (orographic or cyclonic) and is sometimes accompanied by thunder.

Note: These tables of extreme rainfall have been compiled using the Met Office rainfall series which started in 1836.

Month	UK Monthly rainfall	England Monthly rainfall	Wales Monthly rainfall	Scotland Monthly rainfall	N. Ireland Monthly rainfall
January	121.5 mm	83.1 mm	155.2 mm	178.0 mm	114.8 mm
February	96.2 mm	66.1 mm	120.4 mm	140.7 mm	91.5 mm
March	85.1 mm	58.3 mm	103.5 mm	124.6 mm	86.9 mm
April	71.7 mm	56.1 mm	88.0 mm	93.1 mm	74.2 mm
May	71.0 mm	57.2 mm	87.1 mm	89.2 mm	74.0 mm
June	77.2 mm	65.0 mm	92.1 mm	92.9 mm	81.4 mm
July	82.5 mm	66.5 mm	98.6 mm	103.7 mm	89.5 mm
August	93.7 mm	74.6 mm	111.8 mm	120.0 mm	99.3 mm
September	90.9 mm	68.5 mm	111.5 mm	123.3 mm	87.5 mm
October	122.6 mm	90.2 mm	158.5 mm	168.3 mm	114.4 mm
November	123.4 mm	92.1 mm	162.3 mm	165.4 mm	122.4 mm
December	127.2 mm	92.0 mm	175.8 mm	174.0 mm	121.0 mm
Year	1162.9 mm	869.6 mm	1464.6 mm	1573.3 mm	1157.0 mm

Table 14. 1991–2020 mean monthly/annual rainfall values for the United Kingdom.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	197.8	1928	160.0	2014	298.5	1948	303.0	1993	196.0	1877
February	213.7	2020	160.9	2020	295.4	2020	289.4	1990	231.8	2020
March	153.9	1981	146.7	1947	287.5	1981	248.2	1994	160.7	2019
April	128.2	2012	136.5	2012	196.0	1920	194.0	1947	143.8	1961
May	131.7	1967	128.3	1967	214.1	2021	188.8	2011	155.0	1916
June	149.0	2012	148.1	2012	218.6	2012	175.8	1872	178.2	2012
July	150.5	1988	142.0	1888	248.6	1939	191.2	1988	183.3	1936
August	166.8	1917	169.8	1912	275.9	1917	228.5	1985	206.6	2008
September	178.0	1918	166.1	1918	278.2	1918	262.8	1950	197.1	1950
October	220.0	1903	191.3	1903	327.2	1903	253.8	1935	247.0	1870
November	215.0	2009	173.2	1929	335.1	1929	260.9	2009	235.4	1852
December	216.9	2015	173.7	1914	334.7	2015	324.0	2015	226.4	1876

Table 15. Highest monthly rainfall amounts (mm) for the United Kingdom.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	28.6	1855	14.2	1997	11.9	1997	33.7	1881	16.2	1855
February	9.5	1932	3.3	1891	3.4	1932	12.8	1932	5.0	1932
March	14.1	1840	7.8	1929	7.8	1840	8.6	1856	11.7	1837
April	11.3	1842	6.9	1938	9.3	1938	6.5	1842	5.5	1842
May	11.6	1844	8.3	1844	4.1	1844	9.5	1859	8.3	1844
June	14.1	1925	4.3	1925	2.2	1925	28.2	1865	10.8	1921
July	23.2	1868	13.4	1911	22.5	1911	24.5	1863	16.7	1863
August	9.9	1947	9.7	1995	14.3	1995	4.3	1947	12.6	1947
September	22.5	2014	7.7	1959	12.6	1959	15.8	1894	6.8	1894
October	31.6	1946	16.2	1969	31.6	1947	19.5	1946	28.4	1838
November	22.3	1945	17.1	1945	21.9	1945	30.2	1945	27.7	1945
December	26.1	1844	17.7	1840	24.7	1844	39.2	1853	22.9	1844

Table 16. Lowest monthly rainfall amounts (mm) for the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	1439.1	1872	1156.8	1872	1991.6	1872	1892.1	1990	1423.9	1872
2	1372.5	2000	1125.9	2012	1885.3	2000	1862.7	2011	1410.1	2002
3	1345.9	1903	1109.1	2000	1772.5	1954	1840.1	2015	1341.7	1928
4	1333.8	2020	1062.4	1960	1767.1	1903	1800.9	2020	1323.6	2020
5	1329.6	2012	1052.7	1852	1754.8	1852	1765.1	1872	1319.1	2015
6	1324.4	1877	1042.2	1903	1746.9	2020	1748.8	1903	1314.9	1877
7	1298.4	1998	1015.5	1882	1734.2	1960	1747.9	1998	1300.3	1903
8	1295.3	1954	1008.3	1877	1722.2	1877	1746.3	1877	1296.7	1954
9	1293.2	2008	1007.6	1848	1714.3	1998	1739.7	1999	1292.6	2014
10	1292.8	2014	1006.4	2002	1703.3	1882	1739.7	2014	1275.8	2008

Table 17. Ten highest annual rainfall amounts (mm) across the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	786.5	1855	560.1	1921	936.1	1855	953.8	1855	685.8	1837
2	806.5	1887	596.8	1887	949.1	1844	1078.6	1844	775.6	1836
3	828.8	1844	627.5	1854	966.3	1887	1089.0	1870	784.9	1933
4	831.3	1933	628.8	1864	994.1	1933	1097.3	1933	791.3	1887
5	853.8	1870	650.2	1844	998.3	1854	1101.7	1955	799.7	1856
6	876.6	1858	651.2	1933	1019.6	1864	1117.4	1887	805.9	1855
7	881.7	1955	652.2	1858	1075.1	1902	1132.3	1840	823.3	1838
8	882.3	1902	652.9	1870	1075.4	1921	1135.3	1837	840.5	1975
9	889.3	1840	653.6	1964	1079.7	1850	1138.8	1842	843.5	1857
10	891.9	1921	660.5	1855	1089.9	1858	1141.7	1851	852.8	1953

Table 18. Ten lowest annual rainfall amounts (mm) across the United Kingdom.

Extreme rainfall events in the United Kingdom

Criteria	Amount	Location	Date
Highest 5-minute total:	32 mm	Preston (Lancashire)	10 August 1893
Highest 30-minute total:	80 mm	Eskdalemuir (Dumfriesshire)	26 June 1953
Highest 60-minute total:	92 mm	Maidenhead (Berkshire)	12 July 1901
Highest 90-minute total:	117 mm	Dunsop Valley (Lancashire)	8 August 1967
Highest 120-minute total:	155 mm	Hewenden Reservoir (Yorkshire)	11 June 1956
Highest 180-minute total:	178 mm	Horncastle (Lincolnshire)	7 October 1960
Highest 24-hour total:	341.4 mm	Honister Pass (Cumbria)	1800 GMT 4th to 1800 GMT 5th December 2015

Table 19. Extreme rainfall events across the United Kingdom.

Highest 24-hour (0900 GMT-0900 GMT) rainfall totals across the United Kingdom

Country	Amount	Location	Date
England:	279 mm	Winterbourne St Martin/Martinstown (Dorset)	18 July 1955
Wales:	211 mm	Lluest Wen Reservoir (Mid Glamorgan)	11 November 1929
Scotland:	238 mm	Sloy Main Adit (Argyll and Bute)	17 January 1974
Northern Ireland:	159 mm	Tollymore Forest (Co. Down)	31 October 1968

Table 20. Highest 24-hour rainfall totals across the United Kingdom.

Other rainfall statistics for the United Kingdom

- The highest two day total (consecutive 0900 GMT–0900 GMT rainfall days) is 405.0 mm at Thirlmere (Cumbria) on 4 to 5 December 2015.
- The highest three day total (consecutive 0900 GMT–0900 GMT rainfall days) is 456.4 mm at Seathwaite (Cumbria) on 17 to 19 November 2009.
- The highest four day total (consecutive 0900 GMT–0900 GMT rainfall days) is 495.0 mm at Seathwaite (Cumbria) on 16 to 19 November 2009.

Extreme global rainfall events

Criteria	Amount	Location	Date
Highest 1-minute total:	31.2 mm	Unionville, Maryland (USA)	4 July 1956
Highest 60-minute total: (duration was actually 42 minutes)	305 mm	Holt, Missouri (USA)	22 June 1947
Highest 12-hour total:	1,144 mm	Foc-Foc, La Réunion (Indian Ocean)	7–8 Jan 1966
Highest 24-hour total:	1,825 mm	Foc-Foc, La Réunion (Indian Ocean)	7-8 Jan 1966
Highest 48-hour total:	2,493 mm	Cherrapunji (India)	15-16 June 1995
Highest 72-hour total:	3,930 mm	Cratère Commerson, La Réunion	24-26 Feb 2007
Highest 96-hour total:	4,936 mm	Cratère Commerson, La Réunion	24-27 Feb 2007

Table 21. Extreme rainfall events around the world.

Other rainfall statistics around the world

- The highest rainfall total in 12 months is 26,470 mm at Cherrapunji (India) between August 1860 and July 1861.
- The longest dry period is 172 months at Arica (Chile) between October 1903 and January 1918.

This and further information is published on the World Meteorological Organisation global weather and climate extreme archive at the following web link, <http://wmo.asu.edu/>



Arica, Chile.

Extremes of sunshine

Sunshine: the routine measurements of the duration of sunshine which are made for climatological purposes refer, in the British Isles, as in most other countries, to so-called 'bright' sunshine.

Mean daily sunshine figures reach a maximum in May or June, and are at their lowest in December.

The key factor is, of course, the variation in the length of the day through the year, but wind and cloud play their part as well.

Month	UK monthly sunshine (hours)	England monthly sunshine (hours)	Wales monthly sunshine (hours)	Scotland monthly sunshine (hours)	Northern Ireland monthly sunshine (hours)
January	47.5	55.4	47.2	35.3	42.7
February	71.9	77.9	69.1	63.5	66.9
March	109.2	117.0	109.8	97.5	101.1
April	155.4	163.9	157.7	141.7	148.2
May	192.2	199.2	190.9	182.2	183.3
June	171.5	187.7	178.1	146.3	150.1
July	173.4	196.3	177.0	140.5	136.1
August	161.6	180.8	159.7	134.5	136.1
September	127.5	141.2	129.4	106.6	112.9
October	91.8	102.7	91.5	74.7	85.4
November	57.9	64.9	55.3	47.6	54.4
December	42.7	51.2	41.3	29.7	38.1
Year	1,402.8	1,538.1	1,407.1	1,200.0	1,255.6

Table 22. 1991–2020 mean monthly/annual sunshine values for the United Kingdom.

Extreme monthly sunshine totals across the United Kingdom

Country	Amount	Location	Month
England	383.9 hours	Eastbourne (Sussex)	July 1911
Wales	354.3 hours	Dale Fort (Pembrokeshire)	July 1955
Scotland	329.1 hours	Tiree (Argyll & Bute)	May 1975
Northern Ireland	298.0 hours	Mount Stewart (Co. Down)	June 1940

Table 23. Highest monthly sunshine totals for locations in the United Kingdom.

Country	Amount	Location	Month
England	0.0 hours	Westminster (London)	December 1890
Wales	2.7 hours	Llwyn-on Reservoir (Breconshire)	January 1962
Scotland	0.5 hours	Cape Wrath (Sutherland)	January 1983
Northern Ireland	8.3 hours	Silent Valley (Co. Down)	January 1996

Table 24. Lowest monthly sunshine totals for locations in the United Kingdom.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	69.7	1959	80.7	2022	81.7	1933	55.6	1959	75.0	1959
February	101.3	2008	120.1	2019	107.2	2008	92.8	2018	102.3	2004
March	166.9	1929	171.7	1929	204.6	1929	160.1	2022	192.5	2022
April	2253.4	2021	236.7	2020	233.7	2021	216.6	2138	216.1	2021
May	266.9	2020	299.4	2020	285.8	2020	231.8	2000	272.4	1946
June	265.1	1957	284.9	1957	286.8	1957	239.6	1940	258.6	1957
July	256.9	1955	288.3	2006	297.5	1955	240.9	1955	246.9	1955
August	259.4	1947	269.4	1995	274.8	1947	240.2	1947	262.3	1947
September	172.2	1959	191.7	1959	196.4	1959	140.3	1996	165.2	1991
October	120.0	2003	137.7	1959	122.6	1919	104.6	2003	113.8	1939
November	78.9	1925	93.5	2006	89.4	1925	68.1	1925	87.7	1925
December	64.0	2001	75.4	2001	73.1	2001	42.9	2001	62.0	2001

Table 25. Highest monthly sunshine amounts (hours) for the United Kingdom.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
January	21.4	1996	20.3	1996	23.2	1996	20.9	2016	17.4	1923
February	36.4	1940	28.1	1940	35.9	1966	34.7	1923	24.6	1993
March	60.8	1984	57.3	1984	59.5	1936	56.7	1928	49.6	1996
April	90.7	1937	86.9	1920	76.5	1920	84.7	1937	42.3	1937
May	115.9	1983	108.1	1932	110.2	1932	100.0	1983	108.1	2014
June	113.8	2012	117.2	1987	110.4	1987	100.1	1966	91.6	1923
July	107.2	1944	112.9	1944	98.5	1944	82.6	1931	82.8	1986
August	103.8	2008	115.4	2008	91.7	2008	77.2	1942	70.5	2008
September	90.5	1945	89.7	1945	75.2	1956	69.1	1965	73.3	2021
October	56.8	1968	60.8	1968	49.8	1968	47.8	1935	31.0	1921
November	35.5	2015	36.8	2015	31.1	2015	30.7	1997	30.3	2007
December	19.5	1956	19.9	1956	17.9	2018	15.2	1934	19.2	1931

Table 26. Lowest monthly sunshine amounts (hours) for the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	1,586.3	2003	1,746.7	2003	1,652.9	1929	1,444.4	1955	1,461.3	1975
2	1,579.5	1995	1,726.2	1995	1,629.2	1955	1,378.2	2018	1,442.5	1955
3	1,560.1	2018	1,719.0	1989	1,627.6	1949	1,369.3	2003	1,432.0	1919
4	1,555.9	1989	1,696.2	1959	1,608.6	1995	1,354.5	1995	1,426.3	1959
5	1,548.5	1955	1,692.5	1949	1,590.8	1959	1,314.1	1975	1,414.9	1995
6	1,531.3	1959	1,691.7	2018	1,587.4	1921	1,309.4	1989	1,410.6	2010
7	1,527.7	1949	1,677.9	2020	1,576.7	1989	1,297.2	2009	1,378.4	2006
8	1,498.9	2020	1,672.5	1990	1,569.3	1975	1,278.9	1977	1,375.6	1989
9	1,489.5	1929	1,648.6	1921	1,566.8	1933	1,257.6	2006	1,374.9	1977
10	1,481.9	1921	1,627.1	1929	1,543.1	2018	1,257.4	1959	1,362.3	1968

Table 27. Ten highest annual sunshine amounts (hours) across the United Kingdom.

Ranked	UK		England		Wales		Scotland		Northern Ireland	
	Value	Year	Value	Year	Value	Year	Value	Year	Value	Year
1	1207.7	1954	1262.1	1932	1167.4	1958	1001.3	1944	1018.7	1993
2	1210.0	1931	1266.6	1968	1173.0	1981	1006.6	1993	1103.9	1983
3	1211.0	1993	1267.9	1937	1196.5	1920	1042.5	1924	1111.2	1964
4	1212.7	1958	1276.5	1958	1222.0	1931	1058.6	1983	1111.9	1954
5	1213.8	1932	1278.4	1954	1238.7	1993	1064.0	1980	1112.1	1992
6	1214.8	1937	1285.4	1927	1239.0	1978	1069.1	1931	1114.9	1981
7	1222.7	1978	1295.0	1920	1250.4	1936	1074.5	1998	1116.3	1924
8	1227.0	1924	1295.4	1931	1259.9	1980	1076.7	1941	1117.3	1937
9	1229.5	1920	1301.0	1981	1260.0	1954	1078.2	1978	1123.1	1944
10	1229.8	1944	1306.4	1936	1260.3	1932	1084.9	1985	1124.5	1998

Table 28. Ten lowest annual sunshine amounts (hours) across the United Kingdom.

Note: The above extreme sunshine tables have been compiled using the Met Office's sunshine series which started in 1919.

Sunshine statistics around the world

- The South Pole has no sunshine for 182 days per year.



St Petersburg in Florida, USA.

Other sunshine statistics around the world

- St Petersburg in Florida, USA, recorded 768 consecutive sunny days (days when cloud cover less than a third of the sky) from 9 February 1967 to 17 March 1969.

Extremes of wind

Wind: the (horizontal) movement of air relative to the rotating surface of the Earth.

The Met Office measures the wind speed in knots. The knot is defined as a speed of one nautical mile per hour.

$$1 \text{ knot} = 0.51444 \text{ m s}^{-1} = 1.15078 \text{ mile h}^{-1} = 1.853 \text{ km h}^{-1} = 1.689 \text{ ft s}^{-1}$$

There is a close relationship between surface isobars (line joining points of equal pressure) and wind speed and direction over open level terrain. However, in mountain and moorland areas such as the Pennines, local topography has a very significant effect with winds tending to be aligned along well-defined valleys.

The most common direction from which the wind blows in the United Kingdom is from the south-west, but in a climate which is extremely variable from day-to-day, winds from other directions are quite frequent, and long spells of easterly or north-easterly winds are not unusual.

Extreme gusts recorded at low-level sites across the United Kingdom

Country	District	Speed	Location	Date
Scotland	Scotland E	123 knots (142 mph)	Fraserburgh (Aberdeenshire)	13 February 1989
	Scotland N	118 knots (136 mph)	Kirkwall (Orkney)	7 February 1969
	Scotland W	95 knots (109 mph)	Salsburgh (Lanarkshire)	26 December 1988
Northern Ireland	Northern Ireland	108 knots (124 mph)	Kilkeel (County Down)	12 January 1974
Wales	Wales S	108 knots (124 mph)	Rhose (Vale of Glamorgan)	28 October 1989
	Wales N	97 knots (112 mph)	Aberdaron (Gwynedd)	24 December 1997
England	England SW	103 knots (118 mph)	Gwennap Head (Cornwall)	15 December 1979
	England SE and Central S	106 knots (122 mph)	Needles Old Battery (Isle of Wight)	18 February 2022
	Midlands	99 knots (114 mph)	High Bradfield (South Yorkshire)	13 January 1984
	England E and NE	93 knots (107 mph)	Lynemouth (Northumberland)	17 December 1979
	England NW	88 knots (101 mph)	Sellafield (Cumbria) Sellafield (Cumbria) St Bees Head (Cumbria)	13 January 1984 16 January 1984 8 January 2005
	East Anglia	87 knots (100 mph)	Shoeburyness (Essex)	16 October 1987

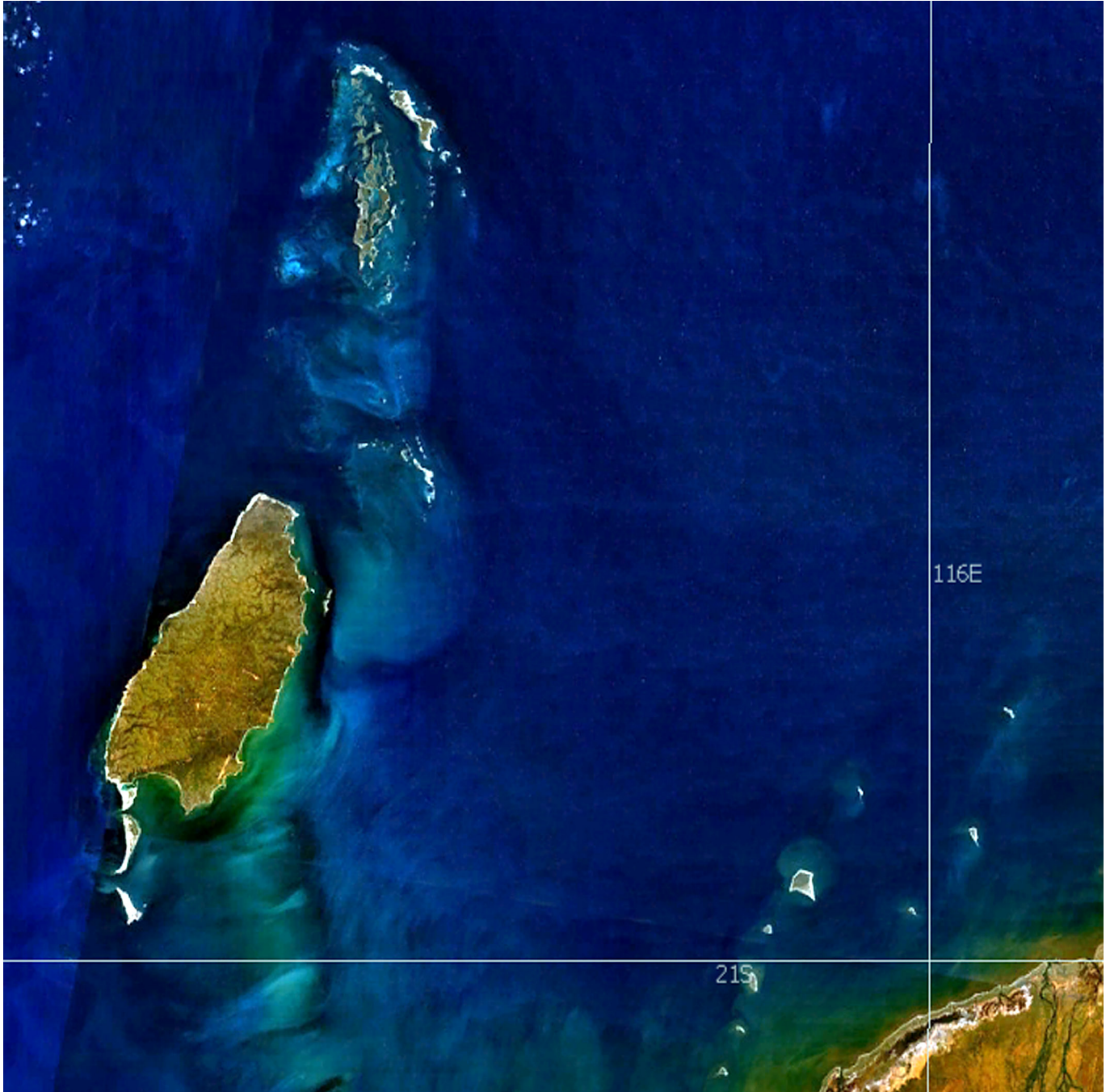
Table 29. Highest gust speed records – by district (low-level sites).

Other wind statistics around the United Kingdom

- Highest gust speed recorded at high level sites: 150 knots (173 mph) at Cairngorm automatic weather station (on the border of Highland and Moray at an altitude of 1,245 metres AMSL) on 20 March 1986.

Global wind extremes

- The highest recorded gust speed is 220 knots (253 mph) at Barrow Island, Western Australia on 10 April 1996.
- One of the windiest places on Earth with regards to mean wind speed is Port Martin (Antarctica). Here the average annual wind speed is 33 knots (38 mph). This is caused by strong katabatic winds blowing off the vast Antarctic plateau.
- One of the least windiest places on Earth is at Dome A, an Australian Research Station on Antarctica. Here average wind speeds are less than a few kilometres per hour.



Barrow Island, Western Australia.

Extremes of snow

Snow: solid precipitation which occurs in a variety of minute ice crystals at temperatures well below 0 °C but as larger snowflakes at temperatures near 0 °C.

Snowflakes are aggregates of ice crystals occurring in an infinite variety of shapes and forms. At very low temperatures the flakes are small and their individual structure is simple. At temperatures which are close to freezing-point the individual flakes may be composed of a very large number of ice crystals (predominantly star-shaped) and the flakes may then have a diameter of several inches.

Month	UK		England		Wales		Scotland		Northern Ireland	
	Days of snow		Days of snow		Days of snow		Days of snow		Days of snow	
	Falling*	Lying#	Falling*	Lying#	Falling*	Lying#	Falling*	Lying#	Falling*	Lying#
Jan	5.3	4.5	3.9	3.2	4.1	3.4	8.2	7.2	4.6	3.2
Feb	5.6	4.0	4.4	2.9	4.3	3.2	8.1	6.4	4.1	2.1
Mar	4.2	2.1	2.7	1.1	3.1	1.5	7.0	4.1	3.2	1.2
Apr	2.3	0.5	1.5	0.3	1.9	0.5	3.7	1.0	1.5	0.3
May	0.4	0.0	0.2	0.0	0.3	0.0	0.9	0.1	0.3	0.0
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oct	0.4	0.1	0.1	0.0	0.3	0.1	0.8	0.2	0.2	0.0
Nov	1.7	0.9	1.0	0.5	1.3	0.7	3.0	1.7	1.1	0.5
Dec	3.9	3.4	2.8	2.4	3.2	2.7	6.2	5.5	2.9	2.4
Year	23.7	15.6	16.6	10.4	18.5	12.0	38.1	26.2	17.9	9.7

(*Includes any incidence of snow or sleet falling. #A day of lying snow is counted if the ground is more than 50% covered at 0900 GMT).

Table 30. 1981–2010 mean monthly/annual days of snow lying and snow falling for the United Kingdom (this is the latest averaging period available).

Extreme snow events across the United Kingdom

- On 25 September 1895 snow was reported to have fallen at London and Wallington (Surrey) making it the earliest fall of snow on the capital.
- The period 7 to 12 July 1888 was particularly cold and snow affected various parts of the country.
- On 2 June 1975 snow showers forced the abandonment of several cricket matches across the country. Most noteworthy were the matches between Essex and Kent at Colchester and between Derbyshire and Lancashire at Buxton.
- The snowiest winter of the twentieth century in the United Kingdom was 1947. Between 22 January and 17 March snow fell every day somewhere in the country.
- The most disastrous avalanche in the United Kingdom occurred in Lewes, East Sussex on 27 December 1836. Eight people were killed and several houses were destroyed.

Extremes of atmospheric pressure

Atmospheric pressure: the force per unit area at any given point on the surface of the Earth by the weight of the atmosphere which lies vertically above it.

The unit of pressure in the International System (SI) is the Newton per metre squared (Nm^{-2}) to which has been given the name Pascal and the symbol Pa. The unit for measuring atmospheric pressure for international meteorological purposes, however, remains the millibar (mb).

1 mb = 100 Pa = 1 hPa = 33.864 inches.

Month	Value (hPa)	Location	Date
January	1053.6	Aberdeen Observatory (Aberdeenshire)	31 January 1902
February	1052.9	Aberdeen Observatory (Aberdeenshire)	1 February 1902
March	1051.3	Malin Head (County Donegal)	29 March 2020
April	1044.5	Eskdalemuir (Dumfriesshire)	11 April 1938
May	1043.0	Sherkin Island (County Cork) and Valentia Observatory (County Kerry)	12 May 2012
June	1043.1	Clones (Co. Monaghan)	14 June 1959
July	1039.2	Aboyne (Aberdeenshire)	16 July 1996
August	1038.4	Altnaharra No 2 (Sutherland)	31 August 2021
September	1042.0	Ballykelly (Co. Londonderry)	11 September 2009
October	1045.6	Dyce (Aberdeenshire)	31 October 1956
November	1046.7	Aviemore (Inverness-shire)	10 November 1999
December	1051.9	Wick (Caithness)	24 December 1926

Table 31. Highest recorded atmospheric pressure values across the British Isles.

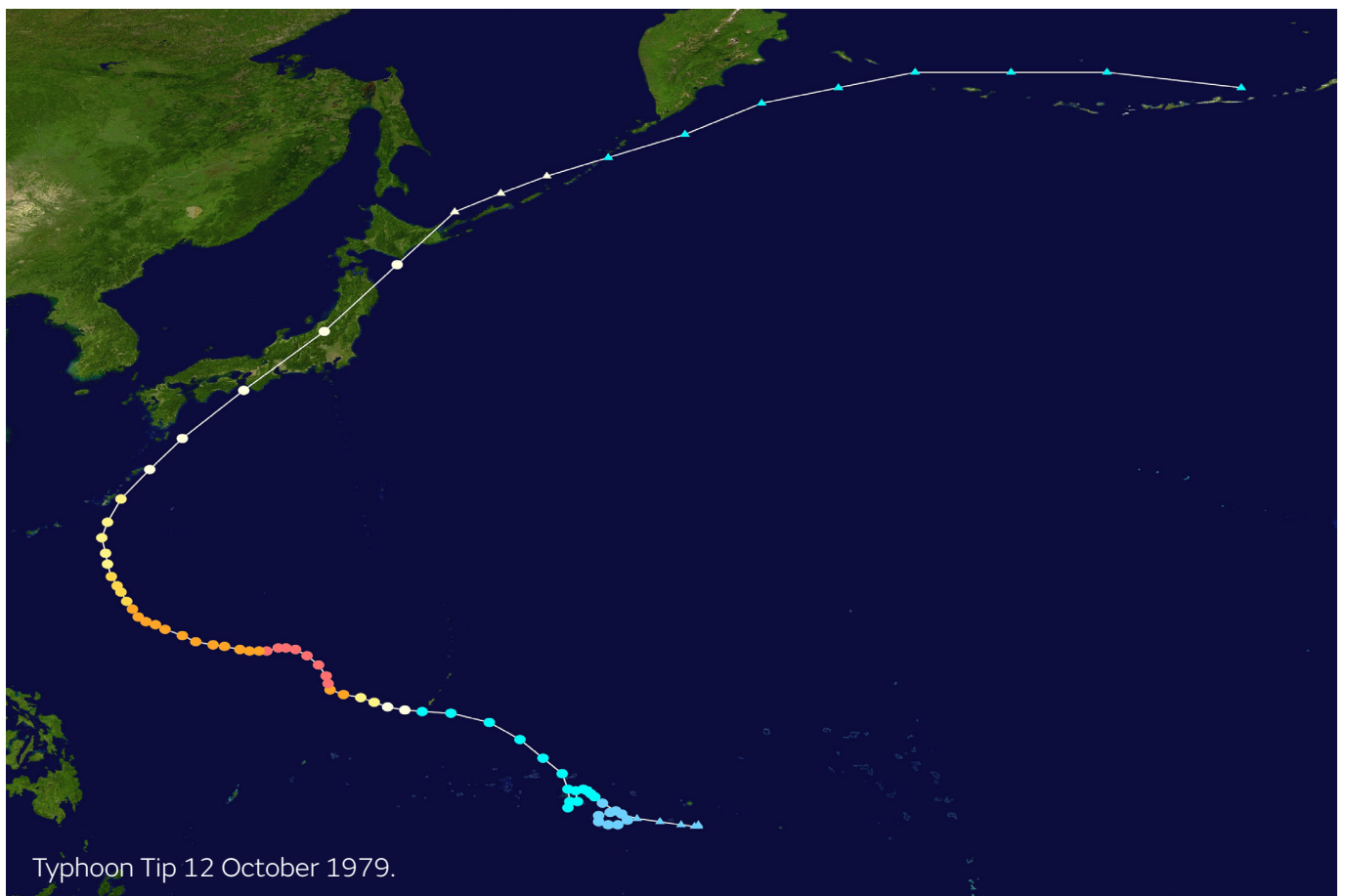
Month	Value (hPa)	Location	Date
January	925.6 hPa	Ochertyre (Perthshire)	26 January 1884
February	942.3 hPa	Midleton (Co. Cork)	4 February 1951
March	946.2 hPa	Wick (Caithness)	9 March 1876
April	952.9 hPa	Malin Head (Co. Donegal)	1 April 1948
May	968.0 hPa	Sealand (Cheshire)	8 May 1943
June	968.4 hPa	Lerwick (Shetland)	28 June 1938
July	967.9 hPa	Sule Skerry (Northern Isles)	8 July 1964
August	967.3 hPa	Shannon Airport (Co. Clare)	19 August 2020
September	957.1 hPa	Claremorris (Co. Mayo)	21 September 1953
October	946.8 hPa	Cawdor Castle (Nairnshire)	14 October 1891
November	939.7 hPa	Monach Lighthouse (Outer Hebrides)	11 November 1877
December	927.2 hPa	Belfast (Co. Antrim)	8 December 1886

Table 32. Lowest recorded atmospheric pressure values across the British Isles.

Global atmospheric pressure extremes

- The highest barometric pressure reading on record is 1083.8 hPa at Agata, Siberia on 31 December 1968.
- The lowest barometric pressure reading on record is 870 hPa. This was recorded in the eye of Typhoon Tip as it moved across the Pacific Ocean to the east of the Philippines on 12 October 1979.

This and further information is published on the World Meteorological Organization global weather and climate extreme archive at <http://wmo.asu.edu/>



Extremes of tornadoes and waterspouts in the United Kingdom and globally

- World's deadliest tornado:
1,300 killed and 12,000 injured at Manikganj District, Bangladesh on 26 April 1989. Also in Bangladesh, on the 1 and 2 April 1977 in Madaripur district (80 miles) from Dacca, another deadly tornado killed 500 people and injured 6,000 more.
- Greatest distance travelled by a single tornado:
219 miles (352 km) from Ellington (Missouri) to Princeton (Indiana), USA on 18 March 1925.
- Greatest distance travelled by a single tornado in the United Kingdom:
100 miles (160 km) from Great Missenden (Buckinghamshire) to Blakeney (Norfolk) on 21 May 1950.

Other facts about tornadoes

- Most tornadoes in a 24-hour period in the United Kingdom: 105 were observed on the 18 November 1981.
- Tornadoes and waterspouts form beneath deep connective clouds such as Cumulus congestus or Cumulonimbus.
- During the period 1970–1984 there were on average 11 days a year in the United Kingdom on which known tornadoes caused damage to buildings, chiefly in the south and east of England. Owing to their local nature most tornadoes are not recorded.
- Tornadoes normally rotate anti-clockwise in the northern hemisphere and clockwise in the southern hemisphere.
- A tornado that occurs over water, whether it is the sea or a lake, is called a waterspout.
- A tornado that does not touch the ground is called a funnel cloud.
- A whirlwind or dust devil is not the same as a tornado. These are much smaller in nature and can form when there is no cloud at all. On 30 July 1975, at Warmley, Bristol a dust devil tore the roof off a factory and carried it 120 feet. The weather on this day was warm and cloudless.
- Dust devils are quite common across the desert regions of North Africa, USA and Australia.



A tornado touches down in Colorado.

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