

MONTHLY WEATHER REPORT

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Exceptionally severe wintry spell first half of month; then mild.

During the first few days of the month a series of fronts moved eastwards across central and southern areas. But over Scotland very cold north-easterly winds edged southwards and, once a depression had crossed Northern Ireland and the north of England on the 5th, these cold winds spread to the rest of the United Kingdom. A ridge of high pressure then became established over northern districts while a slow-moving frontal system moved into the far south-west of England and the English Channel for a time on the 8th and 9th. On the 11th and 12th an intensifying anticyclone advanced south-eastwards across the British Isles to central Europe from where a ridge of high pressure to Ireland persisted until the 15th.

Weak fronts then came slowly eastwards over the United Kingdom to reach the south-east on the 20th. For the remainder of the month depressions moved eastwards over or to the north of Scotland while a succession of fronts crossed all parts.

Weather

Most areas were wet at first, southern and central parts of the United Kingdom being very mild, before wintry weather spread southwards to all districts with blizzards particularly in parts of the north-east and south-west. Freezing rain occurred over much of south-west England on the 9th, glazed ice being severe in the south of Somerset and central parts of Devon, and also, on the 10th, in Jersey. The second week was exceptionally cold with record low temperatures, and while mostly sunny, parts of England had freezing fog at times. Temperatures rose abruptly around mid-month and the last two weeks were changeable with rain at times and mainly mild, but much of the rainfall was slight in the east. Thunder occurred in parts of south-west England and South Wales during the snowstorm on the 7th and 8th while scattered thunderstorms were reported over central England on the 22nd and north Scotland on the 28th.

Wind

Winds were fresh or strong at times, occasionally reaching gale force in exposed places, especially in the west and north. Gales were severe, gusts exceeding 60 kn in places, particularly over Northern Ireland, Wales and the south and west of England on the 7th and 8th, and combined with heavy snow caused power failures in some areas. But between the 6th and the 12th over Scotland and from the 12th to the 25th in central and eastern parts winds were lighter generally. For much of the first two weeks wind directions were from an easterly point. By mid-month, however, winds had veered to southerly while over the last ten days they were mainly between south-west and north-westerly.

Temperature

Mean temperatures for the month were generally below but, despite the very cold spell, mostly within 1 °C of average. At some places in east Scotland, the Midlands, Bedfordshire and Clwyd they were 1 to 2 °C below average whilst over parts of southern England, coastal East Anglia, the Channel Islands, the Isle of Man, Northern Ireland and the Western Isles they were a little above normal.

Except over Scotland and the extreme north-east of England it was mostly very mild at first, but by the 6th very cold weather had returned southwards to all

areas. The next ten days were cold, exceptionally so in many inland areas with persistent frost. On the 10th the temperature fell to -27.2 °C at Braemar (Grampian Region), thereby equalling its own United Kingdom record low temperature in February 1895, and to -26.1 °C at Newport (Shropshire), the lowest yet recorded in England and Wales in any month. That afternoon the Braemar temperature rose to only -19.1 °C although overnight cloud cover resulted in a 24-hour maximum of -9.9 °C. The very low temperatures immobilised some diesel-engined vehicles when their fuel turned waxy while burst pipes caused considerable damage to property when the thaw came on the 15th. The second half of the month was mainly mild. In places temperature exceeded 12 °C both early and late in the month.

Rainfall

Daily values of rainfall for many stations in Wales during the blizzard of 7/9th were derived from maps of snow depth taking 1 cm of snowfall as the equivalent of 1 mm rainfall.

Monthly rainfall totals were above normal over much of Northern Ireland, the north of Britain, the east and south of Wales and the western half of the Midlands. Elsewhere rainfall was mostly below normal with only about half the average falling at a few places in North Wales, southern England, East Anglia and Yorkshire. Over eastern and southern Scotland and in the extreme north of England, where more than 150 per cent of average was recorded in some areas, precipitation was particularly heavy and prolonged from the 2nd to the 5th with flooding in places; 109.9 mm fell at Turnhouse Airport, Edinburgh, over the four days with only 8.1 mm thereafter. Early in the month heavy rainfall and melting snow also caused flooding further south; the worst floods since 1947 were reported along the Ure and Ouse in North Yorkshire and since 1969 along the Severn in Gloucestershire. All areas were mainly dry for about ten days during the second and third weeks of the month.

Snow

Although heavy snowfall was less widespread than in December there were two major snowstorms with considerable drifting, one in the north-east around the

4th and the other in the south and over Northern Ireland around the 8th. Heavy accumulations occurred widely, particularly over the higher ground from Easter Ross in the Highland Region to Durham with about 40 cm of fresh snow in the Braemar area of east Scotland. Heavy snow also fell within the area bounded by Dyfed, Gwynedd, Leicestershire, West Sussex and northern Devon with more than 60 cm in parts of South Wales and adjacent areas of England. Many roads were blocked by severe drifting. Territorial Army soldiers were called out to render assistance in South Wales, which was virtually isolated for three days and where conditions were worse generally than in February 1978 and probably the severest this century. The snow thawed steadily during the third week and apart from some showers in the fourth week, mainly near northern and eastern coasts, there was no further snow.

Sunshine

Monthly sunshine totals were above average over the Isle of Man, much of Wales and England, except the south-west, parts of Northern Ireland, the south and extreme east of Scotland and the Western Isles, but below normal elsewhere. Values ranged from more than 150 per cent of average in parts of north-west England, Clwyd, Humberside and Greater London to less than 75 per cent over Cornwall and at some places in central and northern Scotland. In some northern areas more than half of the month's sunshine occurred between the 5th and 12th, 37.8 out of a total of 44.8 hours being recorded at Benbecula (Western Isles) during this period, while much of the south was sunny from the 10th to the 14th.

Fog

Overnight fog formed at times, mostly over central and eastern parts of England where it was rather widespread and persistent on the 1st and between the 12th and 17th. Hill fog occurred frequently, being extensive on several occasions especially in central areas between the 15th and 20th. Coastal fog patches were also reported at times, mainly in the south-west during the second half of the month.

Miscellaneous Phenomena

None reported.

Table 1 District values

District	air temperature °C					mean 30-cm soil temp °C	rain- days	rainfall	sun- shine
	Highest Max*	Lowest Min*	max.	min.	mean				
			difference from average					% of average	
0 Scotland N	12.7	−14.0	−0.4	−0.3	−0.3	−0.9	+1	103	87
1 Scotland E	13.0	−27.2	−0.6	−1.4	−1.0	−1.1	0	112	93
2 England E & NE	12.2	−16.1	0.0	−1.2	−0.6	−0.9	0	100	123
3 East Anglia	12.6	−16.7	+0.2	−0.8	−0.3	−0.5	−2	73	128
4 Midland Counties	12.3	−21.4	−0.3	−1.4	−0.8	−0.7	−3	78	109
5 England SE & Central S	12.6	−16.0	+0.2	−0.1	+0.1	0.0	−1	65	123
6 Scotland W	11.8	−19.2	−0.4	−0.9	−0.6	−1.8	+1	120	98
7 England NW & Wales N	12.4	−18.2	−0.4	−0.5	−0.5	−0.8	0	97	132
8 England SW & Wales S	13.7	−20.8	−0.5	−0.1	−0.3	−0.1	0	80	87
N Ireland	12.0	−12.5	+0.1	−0.2	0.0	−0.4	+1	103	101
Scotland	13.0	−27.2	−0.5	−0.9	−0.6	−1.3	+1	112	93
England & Wales	13.7	−21.4	−0.1	−0.7	−0.4	−0.5	−1	82	117

*Highest maximum and lowest minimum of District Value Stations