

# MONTHLY WEATHER REPORT

# JANUARY

# 1979

COMPILED FROM RETURNS OF OFFICIAL AND VOLUNTARY OBSERVERS

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## Mostly very cold and snowy, with freezing fog at times.

A trough of low pressure near the Faeroes moved south-eastwards to the Low Countries at the beginning of the month, and a ridge of high pressure then crossed the British Isles. This was followed by a depression, which moved from Biscay to northern France between the 3rd and the 5th and brought severe easterly gales to the western Channel area. Atlantic fronts crossed all parts in a mainly westerly airstream during the next few days, but a return to wintry conditions followed as a deep depression moved eastwards across northern Britain on the 10th.

Another ridge affected most areas on the 12th and the 14th, and some unusually low temperatures occurred before a warm front from the Atlantic brought milder air to all parts early in the third week. This interlude was short-lived as an anticyclone to the west of Ireland drifted north-eastwards to Scandinavia by the 18th and a cold easterly airstream became established over the British Isles. Although fronts moved northwards over Britain on the 20th and the 21st, the high pressure to the north-east persisted until the 23rd, when a low-pressure system moved up the English Channel. Fronts and depressions then moved south or south-east across all areas.

### Weather

The month was very cold and snowy, with only brief milder spells. Snowfall was heavy at times, and the persistently frosty weather maintained the snow cover for long periods, especially in the north. Gale force winds, often from the east, caused severe drifting. Freezing fog, and ice on the roads, added to the problems caused by the wintry weather. Much of the precipitation was of a showery character, however, and many areas had a sunny month. Thunderstorms occurred from time to time, mostly in western districts.

### Wind

Fresh or strong winds blew on many days in exposed places, and gales were severe at times. Easterly gales occurred in southern coastal areas between the 3rd and the 5th, and gusts of between 65 and 70 kt were recorded in south-west England. The heavy seas and strong winds caused flooding and damage along the south Devon coast. The north of Scotland experienced westerly gales on the 7th, gusts attaining speeds of around 65 kt in the Northern Isles, while the mountain station at Cairngorm recorded a gust of 70 kt. Gale force winds, blowing from points mainly between south-west and north-west, occurred in many coastal districts between the 9th and the 12th, and gusts of around 67 kt were again recorded in the south-west. Easterly winds prevailed between the 18th and the 23rd, occasionally reaching gale force on exposed North Sea coasts. Southerly gales affected some western and southern coasts on the 28th.

### Temperature

This was the coldest January over the United Kingdom generally since 1963, and since the early 1940s in some places. Excluding most coastal districts, monthly mean temperatures were mainly between 3 and 4 °C below average, differences from the normal being greatest in central England. Values were mostly between 2 and 3 °C below average elsewhere.

The very cold spell which started at the end of December continued into January, and the 1st was particularly cold, with temperatures remaining below 0 °C all day almost everywhere. Milder weather spread to all areas on the 6th and 7th, but it became very cold again between the 9th and the 14th. Extremely low minima occurred at some high-level stations in Scotland towards the end of this period, temperatures falling below -20 °C in places on the nights of both the 12th/13th and the 13th/14th. At Carnwath (Strathclyde) the minimum of -24.6 °C on the night of the 12th/13th was the lowest temperature recorded in the United Kingdom in any month since 1955 and the second lowest since 1895. Another brief spell of milder weather followed, and it also became milder in southern England at the end of the third week, but these respites from the wintry conditions were only temporary.

### Rainfall

Because much of January's precipitation was of a wintry nature, rainfall totals include the equivalent water content of some heavy falls of snow. Monthly values were above average in East Anglia, in parts of eastern, central and south-eastern England, along most Channel coasts and in parts of Northern Ireland and western and northern Scotland. Totals were below average in most other districts, particularly in parts of eastern Scotland, the central Borders and extreme northern England. Only about half the normal precipitation was recorded in places in these areas.

### Snow

Wintry showers occurred frequently and widely, but there were also prolonged periods of snowfall, notably in the Channel Islands on the 4th/5th, in northern districts on the 9th/10th and the 20th/21st, and in most areas during the last week. The snow was heavy at times and lay for many days, owing to the low temperatures. Gale force winds caused considerable drifting of both fresh and lying snow, and the severe weather brought hardship to most areas. Rapid but only temporary thaws led to flooding in parts of

the south.

Accumulated depths of at least 20 cm were measured in level snow at a number of places, mostly on high ground, and undrifted depths exceeding 50 cm were reported at a few places in the north. Drifts of about 2 m were observed in Shetland at the beginning and end of the month, and in Scotland, over the Pennines and on Dartmoor on various dates.

### Sunshine

Sunshine was below average in a few places along the east coast of England, in some western parts of Northern Ireland and Scotland, and also in northernmost Scotland. All other areas had above-average sunshine, and monthly totals were well above the normal in a number of places. Values exceeded 150 per cent of the average in the Edinburgh area, in parts of central England and along Channel-facing coasts in south-west England. Torbay (Torquay), with 176 per cent (105.1 hours) of the normal, had its sunniest January since records began there towards the end of the last century.

### Fog

Isolated fog patches formed on many nights during the month, but fog developed more widely at times. Hill fog occurred extensively in southern areas on the night of the 7th/8th. Freezing fog was reported fairly frequently, persisting for much of the day in the Glasgow, Belfast and Manchester areas on the 12th, and in Glasgow and parts of the west Midlands on the 13th. Widespread fog developed at times in eastern, southern and central districts of England, and in South Wales, between the 14th and the 16th and was slow to clear in places. Fog also persisted in these areas on the 21st, when a number of road accidents occurred in dense, freezing fog in south-east England. Various parts of England were again affected by freezing fog between the 25th and the 28th.

### Miscellaneous Phenomena

None reported.

**Table 1 District values**

District	air temperature °C					mean 30-cm earth temp °C	rain- days	rainfall	sun- shine
	Highest Max*	Lowest Min*	max.	min.	mean				
			difference from average						
0 Scotland N	9.2	-12.4	-2.1	-2.8	-2.4	-1.1	+2	91	86
1 Scotland E	9.5	-18.5	-2.3	-3.0	-2.6	-0.5	-1	69	126
2 England E & NE	9.4	-15.4	-2.9	-3.5	-3.2	-1.0	+1	100	111
3 East Anglia	8.9	-15.4	-3.0	-3.6	-3.3	-1.1	+4	122	105
4 Midland Counties	11.5	-15.1	-3.1	-3.9	-3.5	-1.5	+1	105	133
5 England SE & Central S	8.9	-11.8	-2.7	-3.4	-3.0	-1.5	+1	107	118
6 Scotland W	9.9	-17.3	-2.5	-3.5	-3.0	-0.9	0	92	116
7 England NW & Wales N	10.4	-14.8	-2.6	-3.1	-2.9	-1.2	0	81	129
8 England SW & Wales S	11.3	-14.0	-2.3	-3.6	-3.0	-1.8	0	103	133
N Ireland	10.0	-12.1	-2.6	-3.6	-3.1	-1.4	-1	90	110
Scotland	9.9	-18.5	-2.3	-3.1	-2.7	-0.8	0	84	109
England & Wales	11.5	-15.4	-2.8	-3.5	-3.1	-1.3	+1	103	121

\*Highest maximum and lowest minimum of District Value Stations