

# MONTHLY WEATHER REPORT

# DECEMBER 1973

COMPILED FROM RETURNS OF OFFICIAL AND VOLUNTARY OBSERVERS

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## Alternately cold and mild

Fronts from the Atlantic frequently crossed the British Isles and the intervening ridges of high pressure were often weakly developed. However, large anticyclones affected the area at the beginning and again at the end of the month.

### Weather

The first half of the month was very windy and gales were severe at times in northern districts but later strong winds and gales were much less frequent. Mild spells and outbreaks of rain, sometimes preceded by snow, alternated with colder spells with wintry showers and occasional hail and thunder. Fog occurred at times but many places, especially in the south, also had bright or sunny intervals.

### Wind

During the first half of the month winds were often fresh or strong with gales at times. From the 5th to 7th westerly gales were severe and gusts of 60 kt or more were reported from widely separated stations on the western and northern coasts of Great Britain. On the 6th, Kirkwall (Orkney) had a gust of 72 kt. It was also very windy from the 13th to 16th and gusts of 60 kt or more were again experienced during widespread and locally severe north-westerly gales. On the 13th, a mean hourly wind speed of 74 kt and a gust of 92 kt were recorded at the high-level station on Snaefell (Isle of Man). After the 16th strong winds were less frequent and gales were almost entirely confined to the coasts and mountains of northern and western Scotland and northern England.

### Temperature

In northern Scotland monthly mean temperatures ranged from about 0.5 to 1.5 degC below average. Elsewhere monthly mean temperatures were mostly within 1 degC of average, the rest of Scotland and north-east England being a little colder and other districts being a little milder than average. The cold weather which prevailed towards the end of November continued until 2 December. Frost was widespread and severe particularly in Scotland and northern England and at Fyvie Castle (Aberdeenshire) a minimum temperature of -17.5°C was recorded during the night of 30 November/1 December. Day-time temperatures on the 1st remained well below freezing in a few places; at Glasgow Airport the maximum temperature was -6.4°C and it was probably the coldest December day in the area since 1935. By the 3rd milder air had spread to the whole of the United Kingdom and thereafter mild periods alternated with cold spells. The cold spells were usually more prolonged in Scotland than in other areas. During the last week there were five days of mild weather in all districts.

### Rainfall (including melted snow)

Monthly rainfall exceeded average in western Wales, in most of northern England and in parts of Northern Ireland. Many districts of Scotland were also wetter than normal with a few places in the north-east having about twice their average amount of rain. Elsewhere rainfall was mostly between 50 per cent and 100 per cent of average but a few places in the southern half of England and Wales had only about a third of their normal rainfall. Showers or periods of rain occurred generally but precipitation was usually heavier and more frequent in Northern Ireland and Scotland and in northern and western districts of England and Wales. Snow or sleet (snow mixed with rain or drizzle) fell mostly over high ground and showers of hail and isolated thunderstorms were also reported. Large daily falls of rain occurred at times and among these were the following: 87.2 mm and 98.0 mm on the 10th and 15th respectively, both at Honister Pass (Cumberland) and 80.2 mm at Ballymaghera (Co. Down) on the 19th. These falls were all recorded during 24-hour periods beginning at 09 GMT on the days mentioned.

### Snow

Snow or sleet often occurred in Scotland and northern England. Elsewhere snowfall was less frequent and any snow that settled did not lie for long at lower levels. On the 1st snow fell for a time over the south-west of England and Wales and undrifted depths of about 10 cm were measured on Dartmoor. Also on the 1st and again on the 2nd snow showers yielded depths of 3 to 6 cm on low ground and 6 to 12 cm on higher ground in south-east Scotland and eastern England. During the following week 10 to 20 cm of snow were measured in the Pennines and the Scottish mountains and on the 18th and 19th further

snowfall was widespread in eastern and northern Scotland. Undrifted depths of 30 cm or more occurred on high ground - at Glenmore Lodge (341 m) (Inverness-shire) a depth of 37.9 cm was measured on the 19th - and the snow persisted for a week or more at levels above 300 m in the central and north-west Highlands. During this time strong winds or gales occasionally gave rise to severe drifting.

### Sunshine

Many districts were sunnier than usual and in south-eastern and north-eastern England and in central Scotland several places had about twice their average sunshine. However, in parts of Northern Ireland and in some western districts of England and Wales there was less sunshine than usual and northern Scotland was mostly dull with one or two places having less than half their average sunshine. At Kirkwall (Orkney) where a monthly total of only 12.1 hours of sunshine was recorded it was the dullest December since 1928.

### Fog

Fog was rather widespread on the 1st and dense and freezing patches persisted all day in parts of Scotland and northern England. On the 25th fog affected much of England and Wales and again persisted all day in places. Otherwise over low ground fog was only patchy and short-lived and occurred mostly in eastern and southern England and in the Midlands. Fog occurred widely on high ground between the 21st and 27th but at other times there were only scattered patches on coasts and hills, chiefly in the west and north of Great Britain.

### Miscellaneous Phenomena

The aurora was seen on 6 nights by observers in Scotland.

**Table 1 District values****December 1973**

District	air temperature °C					mean 30-cm earth temp °C	rain-days	rainfall	sun-shine
	Highest	Lowest	max.	min.	mean				
	Max. †	Min. †	difference from average						
0 Scotland N	12.0	-8.1	-0.8	-1.5	-1.1	—	+4	131	65
1 Scotland E	12.4	-9.4	-0.2	-0.7	-0.4	-0.4	-1	105	112
2 England N E	12.5	-15.1	+0.3	-1.2	-0.5	-0.8	-3	76	156
3 England E	12.1	-10.8	+0.4	-0.2	+0.1	-0.6	0	64	140
4 Midland Counties	13.0	-8.4	+0.7	0.0	+0.4	-0.5	0	71	142
5 England S E	12.3	-5.7	+0.6	+0.3	+0.4	-0.8	0	67	130
6 Scotland W	11.9	-12.4	-0.1	-0.7	-0.4	-0.5	+2	118	123
7 Eng N W & Wales N	12.6	-10.0	+0.3	-0.2	+0.1	+0.3	+1	99	122
8 Eng S W & Wales S	13.8	-6.6	+0.5	-0.2	+0.1	+0.1	0	65	124
N Ireland	11.9	-6.6	+0.6	-0.3	+0.1	—	+1	98	105
Scotland	12.4	-9.4	-0.4	-1.0	-0.7	—	+2	119	100
England & Wales	13.8	-15.1	+0.5	-0.2	+0.1	—	0	77	136

† Highest max. and lowest min. of the District Value Stations