

# Monthly Weather Report

## OF THE METEOROLOGICAL OFFICE

Summary of Observations compiled from returns of official stations and voluntary observers.

Volume 86 Number 12

Published by Her Majesty's Stationery Office

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### December 1969—Cold and dull; foggy spells and some snow

Low pressure dominated the weather over the British Isles for most of the month. Anticyclonic interludes occurred in the south for a few days around the 9th and 18th and in most areas at times during the last week.

**Weather** — North or east winds resulted in a cold and dull month especially in the south although the weather was sometimes changeable. Fog occurred widely at times and occasionally persisted all day in industrial areas. The peak of an influenza epidemic occurred during the month and the foggy spells caused some alarm. Fortunately the fog did not persist long enough to aggravate the situation unduly. There were a number of snowy periods but snow did not lie on low ground for any length of time.

**Wind** — The frequency of gale force winds was about average in the south but below average in the north. Gales occurred locally on 16 days in England, 15 days in Scotland and 8 days in Wales. In Northern Ireland gales generally occurred on 4 days but they were reported on up to 9 days in the north. The 14th was very stormy in most areas, particularly in the south; a gust of 70 kt was reported at Brixham (Devon). Trees were uprooted in places and power cables were brought down in Sussex. On the same day a freighter sank in heavy seas near the Pembrokeshire coast. On the 19th gales occurred in Scotland and on western coasts of England and Wales; a gust of 67 kt was recorded at Tiree (Hebrides). During the last 3 days winds reached gale force at times on exposed coasts in England.

**Temperature** — Monthly mean temperature was everywhere below average. Most areas were 1-2 degC colder than the normal but mean temperature was somewhat nearer the normal in south-west England, parts of north and west Scotland and Northern Ireland.

Frost was severe at times during the month, especially in the north, and occasionally persisted all day in some areas. Coldest spells occurred from the 4th to 6th and 17th to 19th but it was also very cold in the north on the 12th and 13th. Although temperatures were not exceptionally low during the last few days, the east wind over England and Wales resulted in a particularly penetrating frost. Among the lowest temperatures recorded were the following which occurred on the 12th:  $-11.7^{\circ}\text{C}$  at Achnagoichan (Inverness-shire), height 305 m;  $-9.4^{\circ}\text{C}$  at Sellafield (Cumberland);  $-7.8^{\circ}\text{C}$  at Murlough (Co. Down). In Wales,  $-8.3^{\circ}\text{C}$  occurred at Corwen (Merioneth) on the 19th.

It was mild generally on the 3rd and in places from the 7th to 15th although frost often occurred at night. A mild spell of 4 days commenced on the 21st and much of the snow lying melted. Maxima during the month included:  $15.0^{\circ}\text{C}$  at Botwnnog (Caernarvonshire) on the 22nd;  $13.6^{\circ}\text{C}$  at Brize Norton (Oxfordshire) on the 21st;  $13.0^{\circ}\text{C}$  at Sloy (Dunbartonshire) and  $12.8^{\circ}\text{C}$  at Downpatrick (Co. Down) on the 7th.

**Rainfall** — Most of England, Wales and Northern Ireland had near average rainfall but more than one and a half times the average fell in parts of eastern England. On the other hand, less than half the average rainfall occurred in parts of south-east Scotland and over a large area extending from west Perthshire to Sutherland. Around the town of Inverness under a quarter of the average rainfall occurred. A number of places in Inverness-shire recorded their driest December for more than 30 years, for example Garthbeg and Cluny Castle had their driest December since 1933 and 1937 respectively. Rainfall amounts on the Scottish mainland were small after the 23rd.

On the 2nd rainfall was heavy in Northern Ireland, Wales and western England. A fall of 63 mm occurred at Cwmystwyth (Cardigan-shire) in the 24 hours ending 0900 GMT on the 3rd. Flooding followed

heavy rain on the 13th/14th in parts of Scotland, north and west England and Wales. The heaviest rain fell overnight and at 0900 GMT on the 14th falls during the preceding 24 hours included nearly 78 mm at Great Langdale and almost 77 mm at Long House (both stations in Westmorland) and 71 mm on the Isle of Rhum (Inverness-shire).

Thunderstorms occurred only locally and were reported on 4 days in England, 3 days in Wales and 2 days in Scotland. This is below the monthly average.

**Snow** — Wintry showers occurred in Scotland during the first week. Frequent snow showers in eastern parts of England and Scotland from the 4th to 7th resulted in about 10 cm of snow lying on the ground in some areas as far south as Suffolk. Snow fell in most districts during the period 17th to 19th. Blizzards were reported in North Wales, north-west England and south-west Scotland on the 19th and by the 20th snow depths reached 30 cm on high ground in Scotland and 10 cm in northern England and North Wales. More snow fell during the last 3 days, mainly in England and Wales; snow flurries produced only small amounts of snow in the east but 3-6 cm accumulated in parts of the West Country and South Wales.

**Sunshine** — Sunshine amounts were below average in most areas. In the eastern half of the country many places recorded less than half the normal amount and at Turnhouse (Midlothian) it was the lowest December total since records began in 1950. It was exceptionally dull in East Anglia where sunshine amounted to less than 30 per cent of average in places. At Dovercourt (Essex) only 9.6 hours sunshine were recorded during the entire month and at Cromer (Norfolk) it was the dullest December since records commenced in 1902. Sunshine was slightly above average in some western and northern areas.

**Fog** — From the 8th to 13th fog occurred widely at times in England and southern Scotland; it was locally dense and patches of freezing fog persisted all day in some areas. On the 19th and 20th fog occurred in many places during a thaw. Fog was dense in north-west England and southern Scotland from the 25th to 27th. During this spell air traffic was disrupted in parts of north-west England.

**Miscellaneous Phenomena** — The aurora was observed on 4 nights in Scotland.

TABLE I—DISTRICT VALUES, December 1969

DISTRICTS	AIR TEMPERATURE $^{\circ}\text{C}$					EARTH TEMP. $^{\circ}\text{C}$		RAIN DAYS	RAIN-FALL	SUNSHINE
	*Highest Max.	*Lowest Min.	Max.	Min.	Mean	Mean 30 cm.	Mean 122 cm.			
	Difference from Average					% of Average				
0 SCOTLAND, N.	11.1	-4.7	-1.0	-0.9	-0.9	-0.9	-0.2	-1	85	104
1 SCOTLAND, E.	10.6	-6.1	-1.0	-1.1	-1.0	-0.9	-0.7	0	84	78
2 ENGLAND, N.E.	11.1	-6.7	-1.6	-1.3	-1.5	-0.6	+0.1	+2	113	67
3 ENGLAND, E.	11.7	-6.1	-2.1	-0.9	-1.5	-0.6	-0.5	0	110	38
4 MIDLANDS	12.2	-4.4	-1.4	-1.0	-1.2	-0.7	-0.4	+2	96	75
5 ENGLAND, S.E.	11.5	-6.1	-1.8	-1.2	-1.5	-0.9	-0.5	+2	95	51
6 SCOTLAND, W.	11.4	-7.0	-1.0	-1.3	-1.2	-1.1	-0.6	-3	95	86
7 ENGLAND, N.W. and N.Wales	11.4	-6.7	-1.5	-1.6	-1.5	-0.1	-0.2	-2	102	94
8 ENGLAND, S.W. and S.Wales	12.8	-6.1	-1.2	-1.4	-1.3	-0.4	-0.3	+1	86	91
N.IRELAND	11.8	-5.0	-0.8	-0.9	-0.8	-	-	-1	103	87
SCOTLAND	11.4	-7.0	-1.0	-1.1	-1.0	-	-	-1	77	89
ENG. and WALES	12.8	-6.7	-1.6	-1.3	-1.4	-	-	+1	102	69

\*Highest Max. and Lowest Min. of the District Value Stations.