

Monthly Weather Report

M.O. 672

OF THE METEOROLOGICAL OFFICE

Summary of observations compiled from returns of official stations and voluntary observers

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"Adoption of Celsius Temperature Scale"

All temperatures in this and subsequent reports will be given in the Celsius (Centigrade) scale. A conversion scale will be found at the end of Table III.

January 1961 — *Changeable and rather cold*

Weather during the month was mainly cyclonic, with troughs or depressions moving eastwards over or near the British Isles, except from about 17th to 25th when a large blocking anticyclone was centred over Northern Europe and the boundary between maritime and continental air lay across the British Isles.

The first two weeks were generally unsettled and wet. On the 1st and 2nd a complex depression moved south-east across Scotland and northern England to the North Sea accompanied by widespread and locally heavy rain. Two days of squally wintry showers and northerly winds followed, but on the 5th another depression moved south-east across northern and eastern districts bringing a renewal of widespread and at times heavy rain with scattered thunderstorms. On the 6th, winds veered to north again as the depression moved away towards Germany and there were bright periods and occasional showers in most districts during the day, but that night, with decreasing wind there was widespread frost; grass minimum temperature fell to -8°C or below at a number of places. A trough of low pressure moving eastwards from the Atlantic gave another day of general rain on the 7th with snow at first in the north; then after a day of showers, another wet day followed on the 9th when there was prolonged rain over much of England and Wales associated with the southward movement of a trough of low pressure from Scotland to France. Cold north-easterly winds accompanied by occasional rain or showers spread over the British Isles behind the trough, but the wind soon moderated as a ridge of high pressure from the Atlantic moved eastward across the country giving a generally fine day on the 11th. Frost was widespread that night and there were some fog patches. Further rain on the 12th and 13th, which was unusually heavy locally in North Wales and north-west England, was associated with a cold front moving slowly south-east across the country; on the 12th over three inches of rain fell in parts of Merionethshire in twenty-four hours.

An anticyclone from the Atlantic became centred over Britain on the 14th giving a generally fine sunny day but in some industrial areas overnight fog failed to clear and temperatures remained around freezing even during the afternoon. Very high pressure built up over northern Europe during the next few days forming a large anticyclone which blocked the eastward progress of troughs from the Atlantic. For most of the remainder of the month the British Isles was in a marginal area between cold dry air from the continent and mild moist air from the Atlantic.

Winds were generally from between east and south-east from 15th to 18th and weather mainly dry but cloudy during the daytime after the dispersal of early morning fog.

These easterly winds were interrupted, however, for two or three days when, on the 19th, a trough of low pressure from the Atlantic brought rain to most districts. The rain was mostly slight although there were heavier outbreaks in thunderstorms near the south coast. The 20th and 21st were also mild and rather wet with troughs from the Atlantic moving east across the country.

Easterly winds and generally dry cold weather were re-established over most of the country on the 22nd except in the south-west of England where the dull wet weather persisted for several days.

There was a complete change in the weather on the 27th. An intense depression from mid-Atlantic brought widespread rain and gales as the anticyclone over Scandinavia moved away eastwards. Winds exceeded 90 kt in gusts at a number of places in northern Scotland. This was the beginning of an exceptionally wet and stormy period which lasted until the end of the month. Troughs from the Atlantic gave some unusually heavy rain in parts of southern England but weather was generally mild and there were sunny periods between the rain-belts.

Pressure and Wind — Except in the north of Scotland mean pressure was below the average almost everywhere, the deviation at 9h ranging from $+1.6\text{mb}$ at Lerwick to -4.2mb at Scilly. Apart from outbreaks

of northerly winds on the 3rd, 4th, 6th and 10th, winds were mainly south-westerly until the 12th, becoming light and variable on the 13th and 14th and then between south and south-east until the 26th when they became south-westerly again until the end of the month. Wind reached gale force in Scotland on seventeen days and on the 1st-6th, 12th, 15th, 17th, 18th and 24th-31st (eighteen days) in England and Wales. The last week of the month was very stormy. On the 26th, 27th and 28th there were eleven, nineteen and four hours respectively with gusts exceeding 48 kt at Lerwick; a gust reached 95 kt on the 27th, the highest speed ever recorded there, during a severe gale which did considerable structural damage. On the same day gusts of 93 kt and 90 kt were recorded at Stornoway and Kirkwall respectively.

Temperature — Mean temperature was below the 1921-50 average, the deficit being 0.3°C in England and Wales, 0.6°C in Scotland and 0.9°C in Northern Ireland. The warmest days were around the 11th and 12th and again around the 27th; on the latter date temperature exceeded 12°C at a number of places in Inverness-shire and adjacent counties.

Extremes included: (England and Wales) 13.9°C at Colwyn Bay and Askham Bryan on the 29th, -9.4°C at Moor House on the 7th and at Alwen on the 26th; (Scotland) 13.9°C at Lossiemouth on the 27th, -12.2°C at Grantown-on-Spay on the 16th; (Northern Ireland) 12.2°C at Ballykelly on the 27th and at Eglinton and Loughall on the 26th and 27th, -8.3°C at Armagh on 15th.

Precipitation — The general precipitation expressed as a percentage of the 1916-50 average was 127 in England and Wales, where it was the seventh consecutive month with rainfall above the average, 85 in Scotland and 99 in Northern Ireland. Less than half the average occurred in north-west Scotland but more than 150 per cent of the average was recorded on the coasts of Devon and Cornwall, in south Kent and Sussex, north Norfolk, the Wirral peninsula, the Cheshire plain, the eastern Pennines and the Vale of York.

Falls exceeded one inch in twenty-four hours in Northern Ireland on the 2nd, in western Scotland on the 11th and 26th, in North Wales on the 12th and in south-west England on the 24th and 29th.

Snow was widespread in Scotland during the first week of the month and lay several inches deep in places on the 2nd-5th. It was fairly widespread in northern and central England during the first and last ten days of the month. At Malham Tarn snow lay 2-4 inches deep on the 3rd-8th and 21st-27th while at Moor House, where most of the precipitation fell as snow, it lay 12-16 inches deep on the 3rd-12th and there were drifts of more than three feet deep. In southern England snow or sleet was fairly widespread around the 3rd and 25th, and snow lay locally to a depth of 2-3 inches.

Thunder was heard locally in Scotland on the 6th-9th and 27th-28th. In England and Wales thunderstorms were fairly widespread on the 5th and 31st and thunder also occurred on the 1st-4th, 8th, 9th, 28th and 29th.

Sunshine — The general sunshine expressed as a percentage of the 1921-50 average was 90 in England and Wales, 118 in Scotland and 132 in Northern Ireland. In Scotland, sunshine was above the average in the north and west but below in the east; it was 190 per cent of the average at Stornoway and Tiree. In England and Wales sunshine was generally above the average north of a line from the Mersey to the Humber, but below the average south of this line.

Fog — In Scotland, fog occurred locally on most mornings during the first two weeks of the month and was widespread on the 22nd-25th. In England and Wales there was early morning fog at one place or another on the 1st, 3rd, 5th, 7th-25th, 27th, 28th and 30th (twenty-seven days).

Miscellaneous Phenomena — The aurora was visible in Scotland on fourteen nights.