

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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January 1957—*Mostly mild; stormy during last week*

Weather was unsettled and mild until the 9th, anticyclonic and rather cold from 10th to 19th and rather stormy but mild from the 20th to the end of the month.

The first three days were mild and dull with slight occasional rain as fronts, associated with a complex low pressure system near Iceland, crossed the British Isles. On the 4th and 5th rain was widespread and locally heavy, secondary depressions accompanied by gales skirting or moving across Northern Ireland and Scotland; more than 2 in. of rain fell on the Brecon Beacons on each of these days. Temperature, generally 10–15°F. above normal, reached 57°F. on both the 4th and the 5th and remained above 50°F. over most of England and Wales throughout the intervening night. Colder air spread south-eastwards over the country on the 9th and 10th as an anticyclone became established off southern Ireland. On the 12th north-westerly winds freshened, reaching gale force locally, as a depression from Iceland moved to Scandinavia. An upper warm ridge associated with the anticyclone off Ireland became unusually intensified for January as warm air continued to penetrate far north over the eastern Atlantic, and by the 13th high pressure extended from the west of Ireland to Scandinavia. Winds over the British Isles veered to north-east and weather became rather cold for several days with scattered showers of rain or snow. Snow lay 1 in. deep at Sittingbourne, Kent, on the 14th and 2 in. at Gateshead, Durham, on the 15th. An anticyclone which had moved eastward from the United States became centred to the west of Scotland on the 16th and pressures in the Hebrides and western Ireland rose to within 4 mb. of the highest pressure ever recorded in the British Isles. The next three days were generally fine and quiet as the anticyclone slowly declined and moved south-east across England to the continent. After its passage winds freshened from the south-west in Scotland on the 19th bringing mild air and considerable rain from the Atlantic and a return of unsettled weather generally; over 1 in. of rain fell in 24 hr. at many places in northern Scotland. From 20th to 23rd a major frontal belt lay over the British Isles giving widespread, and at times heavy, rain—6.78 in. fell in 48 hr. at Blaenau Ffestiniog, Merionethshire—and although temperature had risen generally there were occasional snow showers in the north. Mild polar maritime air spread over the country from the Atlantic on the 24th giving scattered thunderstorms in southern England and showers in most areas which were of snow in some western and northern districts. On the 25th snow was 3 in. deep at Kielder Castle in the Cheviots and up to 4 in. deep at places in Scotland. From the 25th to the end of the month weather was mild and stormy as vigorous depressions moved north-east across Iceland and associated troughs crossed the British Isles. There were severe gales in the eastern Atlantic throughout the period and winds reached gale force in many parts of the British Isles, gales becoming severe in the western districts on the 31st.

Pressure and wind. Pressure was everywhere above the average, the excess ranging from 1.8 mb. at Lerwick to 6.7 mb. at Oxford. The 1000–500 mb. chart showed values for the thickness larger than during any January between the years 1949–53 in the region of Iceland on the 13th and in the Baltic on the 20th. Around the latter date unusually high upper winds were recorded over the north of the British Isles; at 400 mb. on 21st wind at Lerwick exceeded 150 kt. Surface winds were mainly between south and south-west during the first eight days of the month, between west and north-west from 9th to 12th becoming north-east from 13th to 17th, and mainly south-westerly from 20th to the end of the month. Gales occurred on all but six days, the quietest period in England and Wales being from 16th to 19th and the stormiest during the last nine days. Gales were wide-

spread on the 27th and 31st, and on the latter date a mean hourly wind speed of 57 kt. was recorded at Tiree with a gust of 98 kt.; a gust of 85 kt. occurred at Eglinton in Northern Ireland.

Temperature. Mean temperature differed from the 1921–50 average by +2.5°F. in England and Wales, +1.9°F. in Scotland and +0.9°F. in Northern Ireland. Apart from the cool anticyclonic period temperature was mostly considerably above normal, but on the 25th it fell to 22°F. or below in the screen at many places, and to 7°F. and 8°F. on the ground at Lairg and Glenlivet respectively.

Extreme temperatures for the month included:—(England and Wales) 60°F. at Llandudno on the 4th, 19°F. at Houghall on the 19th and at Kielder Castle on the 25th and 26th; (Scotland) 59°F. at Elgin and Gordon Castle on the 4th, 15°F. at Glenshee Lodge on the 25th; (Northern Ireland) 58°F. at Ballykelly on the 4th, 22°F. at Ballykelly on the 16th and at Hillsborough on 16th and 17th.

Precipitation. The general precipitation expressed as a percentage of the 1881–1915 average was 97 in England and Wales, 147 in Scotland and 159 in Northern Ireland. Heaviest rainfall occurred on the 4th and 5th and during the last two weeks of the month; in 48 hr. 4.78 in. fell at Storey Arms (Cardiff Waterworks) on the 4th and 5th and 6.78 in. at Blaenau Ffestiniog, Merionethshire on the 20th and 21st. On the 31st many places in south-west England recorded over 2 in. in 24 hr. Precipitation for the month was between 50 and 100 per cent. of the average over most of England. More than 150 per cent. occurred in the more mountainous regions of North and South Wales, and the English Lake District, as well as over most of west and central Scotland and of Northern Ireland.

Among the falls of 3 in. or more in 24 hr. were:

20th 3.76 in. at Blaenau Ffestiniog, Merionethshire.

31st 3.45 in. at Princetown, 3.35 in. at Ashburton, both in Devonshire; 3.67 in. at Rhondda Waterworks, Glamorganshire; 3.97 in. at Treherbert also in Glamorganshire.

Thunder. Thunder was heard on 7 days in Scotland and 11 days in England and Wales, and was most prevalent during the last week of the month, particularly on the 24th and 27th.

Snow. In Scotland snow and sleet showers were frequent during the middle of the month and during the last week, and lay up to 4 in. deep in places on the 27th. In England and Wales snow fell mainly on the 13th–15th, 24th, 25th and 27th and ground was snow covered in places in south-east England on the 15th and in some western districts on the 25th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 102 in England and Wales, 119 in Scotland and 139 in Northern Ireland. The eastern part of the country was in general the sunniest; Regent's Park, London, had 150 per cent. of average for the month, but so also did Hillsborough in Northern Ireland and Lerwick and Fort William in northern Scotland.

Fog. Fog was mostly confined to the early mornings and occurred on about 16 days. It was most prevalent in the western part of the country where it occurred on 12 mornings at Princetown, Devonshire, and was fairly widespread in the Midlands and eastern England on the 1st and 2nd.

Miscellaneous Phenomena. The aurora was observed on 13 nights in Scotland; it was not seen from 11th to 20th.