

Monthly Weather Report

M.O. 639

OF THE METEOROLOGICAL OFFICE

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

Volume 75 Number 3

Published by HER MAJESTY'S STATIONERY OFFICE

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March 1958—*Very cold*

After four days of mainly anticyclonic weather cold northerly winds associated with low pressure over Scandinavia prevailed from 5th–11th. Following a short cyclonic interlude high pressure formed to the north-east of the British Isles and easterly winds maintained cold mainly dry weather over most of the country from 14th to 24th. Milder air encroached northwards during the last week bringing wet weather from the Atlantic.

The month opened with a weak upper trough over the British Isles, but this quickly moved south-east and was replaced by an extension from a large amplitude ridge from the Atlantic. Weather was mild with occasional slight rain or drizzle on the 1st, but with rising surface pressure the next four days were mostly dry although there was a good deal of fog night and morning.

An intense upper low, which during the first few days of the month was situated off southern Greenland, moved to the region of Scandinavia on the 5th where it remained quasi-stationary until the 11th. Over the British Isles thicknesses in a trough associated with this upper low were more than six decametres less than the minimum values recorded in March during the five years 1950–1954. Winds over the country were north-westerly from 5th to 11th with frequent snow showers but long sunny periods. Heavy snowfalls were reported in the northern counties of Scotland where a blizzard on the 8th completely paralysed traffic. Temperature fell progressively and by the 9th was below freezing point throughout the day in many places. Night frosts were widespread and locally severe, especially in Scotland where temperature fell to -8°F . and -7°F . at Grantown-on-Spey and Braemar respectively on the 12th. In southern England minimum temperatures of 20°F . or less were recorded at many places from 7th to 11th.

An upper trough moving eastward from the Canadian archipelago reached eastern Greenland by the 11th and a cold pool was established there. A shallow surface depression developed in the Denmark Straits on the 10th and deepened markedly at first as it moved towards the British Isles. There was strong cold advection on its western flank, and as it moved south-east across Northern Ireland and northern England during the night of the 12/13th, there was snow in most districts which later turned to rain. At the same time an upper trough was established in mid-Atlantic, a deepening depression moving north-east on its eastern side. Between these two depressions there was a strong rise of pressure and an anticyclone was established over the North Sea on the 14th giving south-easterly winds over the British Isles. High pressure to the north-east dominated the weather over the country, which was unusually cold until the 24th with persistent easterly winds though mostly fair and sunny except for a few slight snow showers. However, parts of south-west England were affected by a frontal belt between these easterlies and mild Atlantic air, which gave long periods of rain in its neighbourhood; many places in Cornwall had more than 1 in. of rain on the 16th and at Constantine there was a fall of 2.83 in.

From the 24th the British Isles came into the circulation of an Atlantic low, which had given gales in west Wales and south-west England on the 22nd, 23rd and 24th, and the milder air from the Atlantic brought cloudy weather with rain at times to all parts of the British Isles. On the 28th and 29th a depression moving north-east over the Irish Sea gave heavy rain in parts of north-east England and east Scotland, many stations in these areas reporting more than 1 in. on both dates with local falls of more than 2 in. in Angus and Kincardineshire. Over most of England and Wales afternoon temperatures rose to the middle fifties from 27th to 30th and reached 61°F . at a number of places, but in north-east Scotland temperature remained below 40°F . for the remainder of the month.

Pressure and Wind. Mean pressure was above average in north Scotland but below average elsewhere in the British Isles, the departure ranging from $+3.9$ mb. at Lerwick to -6.0 mb. at Scilly. The month began with light variable winds which freshened from a westerly direction on the 4th becoming generally north-westerly from 5th to 11th. Winds were predominantly east to south-east from 12th to the end of the month, but in the southern half of the country were mainly south-westerly on the 28th, 29th and 30th. Gales were reported on 19 days in Scotland and on 11 days in England and Wales; they were fairly widespread in south-west England from 22nd to 24th.

Temperature. Mean temperature was considerably below the 1921–50 average, the deficit being 4.0°F . in England, Wales and Northern Ireland and 4.4°F . in Scotland. The second and third weeks of the month were the coldest; during the week commencing 9th mean temperature varied from nearly 11°F . below the local average in north-east England to 8°F . below the average in the Channel Islands, and during the following week temperature was nearly 9°F . below the average in the Midlands and about 5°F . below the average in both the north of Scotland and the Channel Islands. Unusually severe night frosts occurred from 10th–14th; -9°F . was recorded at Logie Coldstone on the 14th, the lowest temperature recorded in the British Isles in any March since systematic observations began about a hundred years ago.

Extreme temperatures for the month included:—(England and Wales) 61°F . at a number of stations from 28th to 31st, 5°F . at Moor House on 10th; (Scotland) 59°F . at Elgin on the 4th, -9°F . at Logie Coldstone on 14th; (Northern Ireland) 60°F . at Armagh on 30th, 20°F . at Parkmore Forest on 12th.

Precipitation. The general precipitation expressed as a percentage of the 1916–50 average was 83 in England and Wales, 89 in Scotland and 63 in Northern Ireland. Less than half the average fell over much of west Scotland, the Lake District and locally in Wales, Devon and Cornwall. Twice the average occurred along the coasts of Northumberland and east Scotland between St. Andrews and Peterhead and three times the average locally around Montrose. In contrast to the largest March total since 1866 at Montrose, Greenock and Helensburgh had their least of any March this century.

Thunder. There were no reports of thunder in Scotland but it was heard locally in western parts of England and Wales on 7th–10th and was reported from several places in south-east England on the 30th.

Snow. In Scotland snow lay at Braemar from 6th to the end of the month, and at a number of high level stations undrifted snow was between 1 and 2 feet thick. Snow showers occurred in England and Wales from 5th to 24th the ground being snow-covered at many places in north-east England from 8th–16th where it lay 14 in. deep at Ampleforth and Redcar on the 14th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 96 over England and Wales, 99 over Scotland and 88 over Northern Ireland.

Fog. Fog occurred at one place or other on 23 days and was most prevalent during the first and last weeks of the month; it persisted into the afternoon at many places on the 25th and 26th.

Miscellaneous Phenomena. The aurora was observed on 17 nights in Scotland. It was seen from places in East Anglia and southern Eire, on the 12th and 13th and from Yorkshire and Northern Ireland on the 19th and 20th.