

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

Price 2s. 0d. net
By Post 2s. 1½d.

*Annual Subscription
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duction 30/-inc.post.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS

VOL. 72 No. 3

PUBLISHED BY HER MAJESTY'S STATIONERY OFFICE

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March 1955—Mainly dry, cold and sunny, but wet and mild 23rd – 26th.

The weather during the first two weeks of the month was mainly anticyclonic with long sunny periods but some wintry showers. An anticyclone near Greenland maintained a cold arctic air stream over the major part of the country for about another week until an influx of maritime air from the south-west brought four days of mild, very wet weather from 23rd to 26th. During the remainder of the month the weather was cold but fine with the re-establishment of a polar airstream over the country.

During the first three days an anticyclone centred over Germany maintained a cold easterly air stream with dry sunny weather over the southern part of the country, but in the north and north-west the passage of an active trough was associated with considerable rain in parts of Wales and Scotland on the 1st and, coupled with melting snow, subsequent widespread flooding in the Renfrewshire-Clyde area. By the 4th, an anticyclone with a central pressure of over 1040 mb. had crossed the Atlantic and settled west of Ireland and fresh northerly winds associated with this system brought frequent snow showers to eastern England, particularly to East Anglia and Kent. With a general veer of this wind to the north-east on the 6th, slight snow showers spread across the whole country, until on the 10th high pressure developed over the British Isles and brought a return to fine weather. A temporary incursion of maritime air from the north-west raised day temperatures to their seasonal normal for the first time during the month on the 14th and 15th; but on the 16th, high pressure again developed over Greenland and for nearly a week afterwards the British Isles was under the influence of an associated northerly air stream of Arctic origin. Temperatures everywhere again fell below normal and snow or sleet showers alternated with sunny periods. Heavy falls of snow occurred in southern Scotland and northern England on the 20th as a polar depression crossed Scotland. A pronounced change in the synoptic situation took place on the 22nd when warm moist air spread from the south-west as far north as the Scottish border. A small but intense depression moved up the Irish Sea and across northern England on the 23rd, accompanied by strong gales in the south-west and widespread, locally heavy rain. The next day another though less vigorous system followed a similar track, again with outbreaks of heavy rain, but this depression also turned east towards the North Sea before reaching Scotland. A big contrast of temperature was thus established between the south of England where day temperatures were about 60°F. and Scotland where they were still considerably below 40°F. In the 48 hr. during the passage of these two depressions $\frac{3}{4}$ in. of rain fell in many places in Wales, northern England and southern Scotland, but still heavier falls were measured on the 25th and 26th when thunderstorms and thundery rain broke out over a wide area in England and Wales. The four days of abnormally wet weather, together with the consequent final melting of the winter snows on the higher ground in the area, resulted in serious floods in the Midlands. On the 26th an anticyclone began to move southwards from Iceland, and brighter colder weather with northerly winds spread over the whole country by the 27th. The closing days of the month were dry and sunny with some stations in the west reporting more than 11½ hr. of sunshine on the 31st.

Pressure and Wind.—Mean pressure was everywhere above the average for the period 1921–50, the deviation at 9h. ranging from +8.1 mb. at Stornoway to +1.4 mb. at Tunbridge Wells. Winds, during the first half of the month, were from a predominantly north-easterly direction, particularly in the south, although in Scotland and the north of England they often backed to a westerly point. For the remainder of the month, apart from a period of south-westerly winds over England and Wales from 20th to 26th, the general

direction was northerly. Southport reported more northerly winds during the month than in any other March since 1899 except 1953 which had an equal number. Gales occurred on 14 days in Scotland and on the 1st, 5th, 6th, 9th, 10th, 18th, 22nd, 23rd and 24th in England and Wales. The gale on the 23rd was widespread and severe in the south-west where, at some places, wind was above 33 kt. for more than 12 consecutive hours; a gust of 73 kt. was recorded at Lizard and 82 kt. at Scilly. The Norwegian ship *Venus* was blown on to the rocks in Plymouth Sound, and other shipping suffered considerable damage during this gale.

Temperature.—Mean temperature was everywhere substantially below the average for the period 1921–50 from which it differed by –4.9°F. in England and Wales, –3.0°F. in Scotland and –3.9°F. in Northern Ireland. It was the coldest March at Teignmouth since 1906, at Birmingham and Ross-on-Wye since 1919. Ground frost occurred most mornings; low grass minimum temperatures recorded included:— –1°F. at Glenlivet on 20th, 6°F. at Carnwath on 31st, 10°F. at Bournemouth (Hurn) on the 18th and 20th, 12°F. at Kew on the 1st, 2nd, 20th and 21st and at Usk, Monmouthshire on the 22nd. Extreme screen temperatures included:—(England and Wales) 65°F. at Kensington, Regent's Park and Hampton on 25th, 10°F. at Moor House on 20th; (Scotland) 57°F. at Stonehaven on 30th and at Carnoustie on 14th, 9°F. at Glenmore Lodge and Glenlivet on 20th; (Northern Ireland) 57°F. at Armagh on 25th, 18°F. at Aldergrove on 31st.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 83 over England and Wales, 50 over Scotland and 36 over Northern Ireland. Totals exceeded the average over much of the Midlands and eastern England from the Wash to the Tees with more than 150 per cent over an area in the Midlands which included Birmingham and Shrewsbury. There was less than 50 per cent of the average in south-west England, over Snowdonia, north-west England and most of the western half of Scotland. Much of Argyllshire and western Inverness-shire had less than 25 per cent.

Among the heavier falls in 24 hours or less were:—

1st 2.80 in. at Sallagh Springs, Co. Antrim.

25th 2.16 in. at Garth and 2.07 in. at Llwynmadoc, both in Brecknockshire.

Snow and Sleet.—In Scotland, snow and sleet fell chiefly during the first week and from 16th to 24th, though there were local snow showers to the 29th. In England and Wales, snow fell to a depth of 6 in. in parts of East Anglia and Kent on the 6th, and to a similar depth in places in northern England on the 20th in addition to which there were scattered snow showers particularly in eastern England throughout the major part of the month.

Thunderstorms.—Scattered thunderstorms and outbreaks of thundery rain occurred in England and Wales on the 25th, 26th and 28th; there were none in Scotland.

Sunshine.—The general sunshine expressed as a percentage of the average for the period 1921–50 was 134 over England and Wales, 116 over Scotland and 139 over Northern Ireland. It was the sunniest March since 1929 at Helensburg, Southport and Teignmouth and since 1948 at Ross-on-Wye and Newquay.

Fog.—Fog occurred on 21 days in Scotland and in many places from 1st to 15th and from 21st to 26th in England and Wales. It was fairly widespread in north-east England and the Midlands on the 2nd and 3rd, and thick locally, persisting throughout the day on the 24th, 25th, and 26th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 7 nights.