

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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FEBRUARY, 1943.—Mild, with prevailing south-westerly to westerly winds.

The weather of the month was very mild generally; it was sunny except in the north and extreme west of Scotland and excessively wet in Sutherland and the western Highlands but dry on the whole over England and eastern Scotland.

During the opening days a deep depression moved east-north-east from a position southward of Iceland and filled up; showery weather, with bright periods, prevailed over the British Isles. On the 1st, rainfall was heavy in some places and the showers were accompanied locally by thunder, while winds were mainly strong, with local gales. Thunder was also reported in southern England on the 2nd. On the 4th an anticyclone off our south-west coasts and a wedge extending northwards, moved east, while a depression off south Greenland and an associated trough moved east-north-east; rain occurred in Ireland and west and north Scotland but there were considerable sunny periods. Thereafter a secondary depression developed off north-west Ireland and moved quickly north-east across Scotland to southern Scandinavia; general rain and local gales occurred on the 5th and widespread gales and showers on the 6th. A small anticyclone west of Ireland moving south-east was associated with a fair day in most areas on the 7th. On the 8th and 9th a deep depression south of Iceland and an associated trough extending southward moved east; heavy rain fell on the 8th, and mainly showery weather was experienced on the 9th, while gales were reported at exposed stations on both days. On the 10th a small depression west of Scotland and a trough over Ireland moved east causing rain generally.

Subsequently an anticyclone was established off our south-west coasts and deep depressions moved eastward across Iceland. Rain, heavy locally at times, and frequent gales occurred in the north and west but, apart from temporary breaks, mainly fair weather prevailed elsewhere. A deep depression situated north of the Faeroes early on the 15th moved quickly eastward and was associated with widespread gales and wintry showers but also long, bright periods. Thereafter the intense anticyclone south-west of the British Isles moved slowly eastward and a spell of mainly fair weather ensued, though slight rain occurred locally, and deep depressions approaching Iceland from the south-west caused local gales in the extreme north of Scotland. On the 23rd and 24th troughs of low pressure associated with a deep depression north of Iceland moved east over the British Isles causing rain in the west and north, and on the 25th a depression south of Iceland and an associated trough moved quickly east over the British Isles giving showers or slight rain. Subsequently the anticyclone off our south-west coasts dominated conditions over the British Isles and maintained mainly fair weather over practically the whole of the country for the remainder of the month.

Pressure and Wind.—Mean pressure exceeded the average except in the Shetlands, the excess being greatest in the south-west. The deviation at 7h. ranged from -2.7 mb. at Sumburgh to $+11.0$ mb. at Scilly. The gradient for westerly winds was thus greatly increased and winds from south-west and west predominated. Gales occurred frequently at exposed stations during the first sixteen days and in the extreme north of Scotland on numerous occasions also during the remainder of the month, and some were severe. A mean hourly velocity of 62 m.p.h. was registered at Bell Rock Lighthouse on the 6th and one of 60 m.p.h. at Lerwick on the 19th. Among the highest speeds registered in gusts were 83 m.p.h. at Bell Rock Lighthouse on the 6th, 86 m.p.h. at Bidston and 83 m.p.h. at Aberdeen (a record gust there) on the 15th, 95 m.p.h. at Lerwick on the 19th and 82 m.p.h. at Stornoway on the 25th.

Temperature.—In strong contrast to February 1942, mean temperature was notably high in 1943. The deviation from the

average was $+3.1^{\circ}\text{F.}$ in England and Wales, $+3.5^{\circ}\text{F.}$ in Scotland and $+3.6^{\circ}\text{F.}$ in Northern Ireland. In Scotland, February 1943 ranks with those of 1934, 1918 and 1903 as the mildest Februaries since before 1901. In England and Wales, February 1943 was as mild as February 1928 but a good deal less mild than February 1926. Day temperatures of 55°F. or above were registered on most days from the 11th–28th. Moderately low minimum temperatures were registered on the 4th, 7th, 8th and at times in England and Wales during the last 10 days.

The extremes for the month were:—(England and Wales) 60°F. at Hawarden Bridge and Sealand on the 14th, 20°F. at Horsham on the 8th; (Scotland) 63°F. at Stonehaven on the 27th, 23°F. at Tarland on the 4th; (Northern Ireland) 56°F. at Castlerock on the 23rd, 30°F. at Aldergrove on the 7th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 70 over England and Wales, 119 over Scotland and 88 over Northern Ireland. In England and Wales the deficiency was greatest in the north-east; in an area covering the Humber and part of Lincolnshire the percentage of the average was 25 or less. More than the average occurred over much of central and north Wales and locally in the north-west and the western Midlands. In Scotland, the excess was greatest in Sutherland and the Western Highlands; locally in these regions rather more than twice the average was received. A considerable deficiency occurred in a coastal strip in the east; at some places in Fife less than half the average was registered. In Northern Ireland percentages ranged from 52 at Seaforde, County Down to 129 at Londonderry. In west and north Scotland the month was persistently wet: measurable rain fell on every day at Achnashellach, Fort William, Onich and Colonsay. In contrast there were only 6 "rain-days" at St. Andrews, 8 at Dunbar and 7 or 8 at numerous stations in England.

Among the heaviest falls in 24 hours were:—

- 5th 3.63 in. near Blaenau Festiniog (Merioneth), and 2.76 in. at Borrowdale.
- 8th 2.50 in. at Ffwdgrech (Brecon).
- 11th 3.55 in. at Benmore (Loch Eck) and 3.25 in. at Glenquoich (Inverness-shire).
- 13th 3.45 in. at Glenquoich.

There was less snow than is usual in February. In Scotland snow showers were reported at Achnashellach on 11 days and at Inverness and Strath Dearn on 10 days but at no time was undrifted snow more than two inches deep.

Thunderstorms were reported locally at times, chiefly on the 1st, 2nd and 12th.

Sunshine.—Excessive sunshine was, on the whole, a notable feature of the weather of the month; at some stations in the north and north-west of Scotland, however, there was a marked deficiency. There was a strong contrast between the duration of sunshine in north-west and east Scotland: at Stornoway the total, 21 hours, was the lowest for February in a record back to 1881, while the totals at Arbroath (124 hours), Leuchars (119), Montrose (118) and St. Andrews (112) are the highest since records began. At Durham it was the sunniest February since 1907 and at Cranwell and Ilkley since records were first taken in 1921 and 1923 respectively.

Fog.—Fog was infrequent for the time of year, notably so in Scotland. The chief periods of fog (mostly in England) were the 19th–23rd and 25th.

Miscellaneous Phenomena.—The aurora was observed in northern stations in Scotland on 12 nights; a display on the evening of the 25th was seen at Stonehouse, Glos. as well as at widely separated stations in Scotland. Solar halos were noted at Oxford on seven days.