

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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February 1947 - Exceptionally and persistently cold; dull; heavy snowfall.

The weather of the month was distinguished by exceptional and prolonged cold, accompanied by persistent easterly winds. It was very dull except in the west of Scotland and snowfall was heavy, with deep drifts.

The pressure distribution was dominated by anticyclones over Scandinavia and Greenland. In consequence Atlantic depressions followed tracks to the south of the British Isles. From the 1st-5th a secondary depression off south-west Ireland moved very slowly east-south-east to northern France where it filled. Gales were reported locally from the 1st-4th. Heavy precipitation occurred in the south-west on the 1st; the precipitation spread north over most of England and Wales and Ireland on the 2nd and 3rd and to parts of Scotland on the 3rd and 4th. Snow lay over most of the country during this period, though there was a thaw in the extreme south; for example, day temperature rose to 40°F. at Kew Observatory, 41°F. at Manston and 42°F. at the Scilly Isles on the 4th. On the 5th snow was widespread but not generally very heavy; nevertheless on the morning of the 6th, level snow was 20 in. deep at Huddersfield and 44 in. at Forrest-in-Teesdale. By the 7th another disturbance was situated off our south-west coasts; subsequently it moved very slowly east-south-east and filled up over central France on the 12th. Weather continued very cold on the 7th and 8th, apart from a thaw on the extreme south-west coasts, and considerable snow occurred in the south-east, east and east Midlands of England. On the 9th and 10th an occlusion spread north over England and somewhat higher temperatures were registered with further precipitation, although it continued cold.

Thereafter the anticyclones completely dominated conditions and mainly dry weather prevailed until the 20th. Meanwhile temperature remained continuously below freezing point in many areas from the 11th to the 22nd or 23rd or even longer. On the 20th yet another depression appeared off our south-west coasts; widespread snow was reported in England and Ireland from the 20th-22nd. A distinctive feature of the period 2nd-22nd inclusive was the long spell of north-east to east winds and almost complete lack of sunshine in many parts.

On the 24th a feeble ridge of high pressure extended over south-west Scotland and England to Germany, but on the 25th a depression approached south-west Ireland and subsequently moved rather quickly north-east across the British Isles to east Scotland and filled up. Local gales occurred in south-west England on the 26th and in east Scotland on the 26th and 27th. The strong winds in the north and east were accompanied by considerable snowfall, with deep drifts.

Pressure and Wind.—Broadly speaking mean pressure exceeded the average in Scotland and was below the average in England and Wales and Ireland, the deviation at 9h. ranging from +12.2 mb. at Lerwick to -11.1 mb. at the Scilly Isles. The normal pressure distribution was thus reversed and easterly or north-easterly winds prevailed over most of the country until the 22nd. Easterly winds occurred also in late January and the combined period was outstanding. The observer at Southport reports that the persistence of easterly winds was greater than in any month in a record going back to 1871. Gales were reported locally from the 1st-4th, 7th-10th, 12th, 20th-21st and 25th-27th, while strong or high winds were registered at Holyhead on 23 days, Lizard on 22 days and Pendennis Castle and Gorleston on 17 days (See Table II). Among the highest speeds registered in gusts were 75 m.p.h. at Lizard and 72 m.p.h. at Pendennis Castle on the 8th, and 67 m.p.h. at Holyhead and Bell Rock Lighthouse on the 26th.

Temperature.—Mean temperature was exceptionally low; as far as can be estimated it was the coldest month, apart from February 1895, over England and Wales, since before 1881; over Scotland there were two colder months, namely January 1881 and February 1895. At Armagh in Northern Ireland it was the coldest month since February 1895. At individual stations the mean temperature was lower than in 1895; for example, at the Radcliffe meteorological station, Oxford, the mean

temperature was the lowest for any month in a record going back to 1815. In most areas the low mean temperature was due to a large extent to the low mean maximum temperature. On the whole the mean minimum temperature was not so exceptional although some outstanding screen minima were registered on the mornings of the 23rd-26th, as well as on the 20th in Scotland and on the 1st in south-west England. One of the most striking features was the prolonged spell from about the 11th-23rd, when temperature remained continuously below 32°F. in many parts of England; at Oxford, temperature in the screen remained below 32°F. from 18h. on the 10th to 6h. on the 26th, the longest period since before 1881.

The extremes for the month were:—(England and Wales) 52°F. at Penzance on the 26th, -5°F. at Woburn on the 25th; (Scotland) 43°F. at Arbroath on the 18th, -2°F. at Braemar on the 25th; (Northern Ireland) 42°F. at Armagh on the 27th, 12°F. at Garvagh on the 24th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 82 in England and Wales, 43 in Scotland and 39 in Northern Ireland. More than the average occurred in a narrow coastal belt of east Scotland; more than 200 per cent was received over part of Durham and around Cromer, in Norfolk. Less than 50 per cent occurred over practically the whole of Northern Ireland, north-west England, and most of Wales and north Devon. Less than 10 per cent was registered over most of west Scotland and the Inner Hebrides and less than 5 per cent in the Great Glen, the Western Highlands and the western Isles. The notoriously wet stations Glenquoich, Glencoe and Ardgour had not a single fall throughout the month, a condition unprecedented throughout the records at these places; the dryness was so acute that heather fires were burning in some districts. Falls of more than 1 in. were measured at numerous places in the south of England on the 1st, locally in Wales and the Midlands on the 25th and in south Scotland on the 26th.

Snow. The snowfall of the month was heavy in eastern and Midland districts and over much of the country it lay throughout the month. A foot or more of level snow lay in parts of Durham, Yorkshire, Lincolnshire and the east Midlands by the 4th or 5th and, in many places these conditions persisted with little change. For example, at Ushaw College, County Durham, snow was 15 in. deep on the 5th, 22 in. on the 15th and 28 in. on the 28th. At Forrest-in-Teesdale, level snow lay 44 in. deep on the 6th and 53 in. on the 18th. At Huddersfield snow was 20 in. deep on the 5th, 25 in. on the 12th, 15 in. on the 21st and 17 in. on the 28th. At Waddington, Lincs., it was 12 in. deep on the 5th, increasing to 15 in. on the 22nd and 23rd, decreasing to 10 in. on the 27th. The persistent easterly winds, which were frequently strong, caused deep drifts and great dislocation of traffic. In Scotland, on high ground in Angus, up to 24 in. of level snow was reported on the 8th, and in south and east Scotland on the 25th-26th heavy snow, accompanied by a south-easterly gale, caused deep drifts, which blocked main roads.

Sunshine.—The month was very sunny in the north and most of the west of Scotland and exceptionally dull in England and Wales, the percentages of the average for the districts ranging from 36 in England E, to 146 in Scotland N. (See Table I). At stations with long records as far apart as Kew Observatory, Falmouth and Aberdeen, it was the dulllest February on record. A number of stations also reported the longest run of sunless days; at Kew there was no sunshine from the 2nd to 22nd inclusive.

Fog.—Fog occurred locally at times mainly from the 1st-4th, 9th-10th 13th-14th 21st and 23rd-26th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 10 nights. Solar halos were noted at Oxford on three days.