

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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FORTY-SECOND YEAR.

Vol. XXXIV. (New Series)

No. II.

FEBRUARY, 1917.

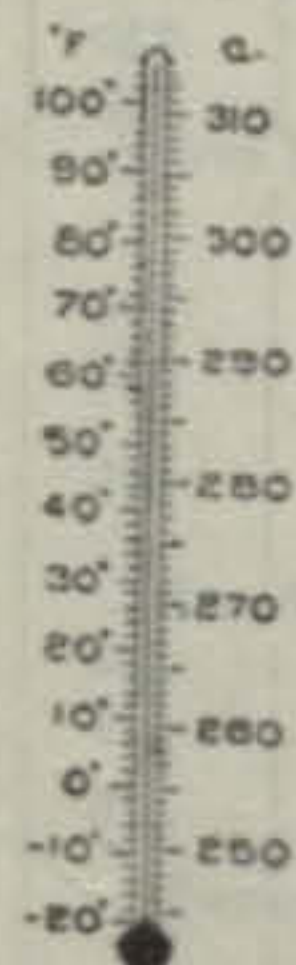
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Unusually Severe Frost. Very Dry. Dull in England.

During a great part of the month the distribution of pressure was wholly or partly anticyclonic. Few depressions traversed the British Isles or their immediate vicinity, but in addition to those shown on map 2 there were some very shallow, ill-defined disturbances whose tracks cannot be depicted. Until the 4th the conditions were cyclonic, but the depressions brought little precipitation, and were too shallow to cause strong winds. On the 5th an anticyclone began to spread over Ireland from the Atlantic, and this system proved the chief determining factor in the weather conditions until the 16th, although on the 11th a shallow depression, track C, developed over the northern part of the North Sea and moved away to Denmark. During this period there was scarcely any rain or snow over England and Ireland, and little in Scotland, while the wind, very light to moderate, came mainly from the Eastward in the south and from the Westward in the far North of the Kingdom. By the 16th the core of the anticyclone had travelled south-eastward to Italy, while a depression lay on the Atlantic off Ireland, and the wind had become Southerly or South-Easterly except in the south-east of England. The centre of the depression remained some distance beyond Ireland until the 20th, the Southerly wind in the meantime extending to the south-eastern counties of England. With the general and decided rise of temperature due to the Southerly wind fog and mist became widespread both inland and on the coast, while slight to moderate amounts of rain were experienced in nearly all localities.

On the 19th the depression began to move eastward, and the first, and only, heavy fall of rain during the month occurred. It was confined to Ireland, Wales, and the south-west of England, the principal amounts being 33 mm. at Mount Callan (Co. Clare), 31 mm. at Cahirciveen (Valencia Obs.), 30 mm. at Armagh, 27 mm. at Belfast, 24 mm. at Birr Castle, and 29 mm. at Haverfordwest. As the depression moved eastward there was more rain, generally much less heavy, though an additional 22 mm. fell at Armagh, and more than 25 mm. at Dundee and Lednathie (Forfar). On the same day there was a thunderstorm in the south of Ireland. On the 23rd a shallow V-shaped depression yielded some rain in most parts of the Kingdom, and on the 25th, with winds between South and West associated with a large depression centred over the Icelandic region, rain was very general. By the end of the month an anticyclone was extending over these Islands from the southward and the wind was inclined to veer.

Temperature.—The severe weather which had been so persistent in January continued with greater intensity during the early days of February, reaching its climax between the 2nd and 8th, when many localities in England experienced a colder spell than at any time since February 1895. On the 5th, 6th, and 7th readings below 261a were very common in all parts of the Kingdom away from the coast. The lowest of all were 253a at Benson (Oxon) and 253·5a at Wellington (Shropshire) on the 6th. On the preceding day the thermometer fell to 256·5a at Benson, and on the 6th the same value was recorded at Ross-on-Wye, Gwernyfed Park (Brecknock), and at West Linton. Thermometers exposed on the grass sank to 255a (0° F) at widely scattered stations—Warlingham (Surrey), Canterbury, Sparkhill, (Worcester), Rhayader (Radnor), Buxton, and Leyland, (Lancashire). The maximum readings were correspondingly low. For some days the temperature remained below the freezing point over extensive areas, which included several coast stations in the south and south-west and in the Isle of Wight. At Leyland, Coventry, and Fulbeck (Lincolnshire) the maximum on the 6th or 7th was only 269a, and at Benson 268·5a, while at Ross-on-Wye it was as low as 267·5a. Until about the 10th the mean temperature was 6a below the normal at many English and Irish stations, but in Scotland the divergence was not so marked. For the month as a whole temperature was nearly 3a below the normal in most parts of England, but only 1·5a below in Ireland North and Scotland West, and 0·3a in Scotland North. After the 12th the general tendency of temperature was upward, but night frosts still continued for a time, and some were severe locally. During the last week or so, when frost was relatively rare, the mean temperature was slightly above the normal in Ireland and Scotland and diverged little from it in England. At various stations occasional maxima of 283a or somewhat higher were recorded, but the highest reading of the month, 287a, occurred at Killarney in front of the depression of the 20th. Several observers remarked on the exceptional cold.



Broadford (Co. Clare).—"Hundreds of birds were killed by the great cold and want of food." Tenbury.—"Evergreens such as yew, laurel, holly, and Ivy 'scorched' by the frost. The river Teme, a fast running stream, frozen over for several days; this had not been known for many years." Ross.—"Wye frozen over on 6th, crowds of people skating on it on the 8th." Dublin.—"All exposed waters covered over with ice up to 4 inches thick." Totland Bay, February 11th.—"End of 22 consecutive night frosts." February 18th.—"End of 35 consecutive ground frosts." Hampstead, the northern heights of London.—"The longest frost since February 1895. Skating on adjacent pond lasted three weeks; ice ten inches thick. Forty-one consecutive frosts on the 16th; 51 ground frosts on the 23rd." Mungret (Co. Limerick), February 18th.—"Last day of skating which lasted without a break for 33 days." Sheepstor (Dartmoor).—"Frost lasted 91 days; the severe period was 5 weeks, longest severe record since 1855. Nearly all the furze is killed."

In February, 1895, the cold was, except perhaps locally, more intense and prolonged. The mean temperature was below 273a over practically the whole of Great Britain except a narrow fringe of coast line, and below 271a at many stations; in central Ireland and also at Jersey it was below 273a. The lowest readings reported were 246a at Braemar and 251a at Ketton Hall (near Stamford).

Sea Temperature.—The temperature of the sea surface water underwent a further decrease during the month and was generally below the normal. It was, however, appreciably above that of the air except locally off the south-east coasts. Coastal fogs were rather prevalent along the eastern seaboard throughout; on the western coasts several places had visitations between the 7th and 11th, and after the 16th fog was general on almost all parts of the coast. At Belper the mean temperature of the water of the Derwent was 277·1a, and that of the air 273·7a.

Precipitation was less than the normal very generally. Over a very large portion of the Kingdom it was less than 50 per cent. of the normal, in several places below 30 per cent., and in some less than 25 per cent. Here and there in the north-west of England, however, there was a slight excess. At a large number of stations in England and at some in Ireland there was no rain or snow during the chief anticyclonic period between the 5th and 15th, while at some places the dry spell began earlier and continued longer. At Carrigallen (Co. Leitrim) the first measurement was on the 24th. At Richmond (Kew Obs.) the height of the surface of the underground water above mean sea level dropped from 303 cm. on the 1st to 260 cm. on the 20th and 21st. The quantity of fresh snow was nowhere heavy, but owing partly to the snow of the preceding month the ground was covered from 9 to 12 days or more over a wide area in the east and north, as well as in some more southern localities. At Little Massingham (Norfolk) it did not disappear until the 18th, and at some stations in Durham and Northumberland it stayed till a few days later. Round about Princetown (Dartmoor) the ground was white till the 16th. The greatest accumulated depth reported on level ground was 45 cm. at Bellingham (Northumberland) on the 6th. During the first week there was a depth of 28 cm. at Strathpeffer and Balmoral, and in various parts of eastern and central England the layer ranged from 9 to 16 cm.

Air Pressure.—The mean isobars show that the distribution differed widely from the normal. England and Ireland were covered by areas of uniform high pressure, while over Scotland and further north there was a moderate gradient for Westerly winds, and on the English Channel a rather decided gradient for Easterly winds. Over the British Isles generally the barometer was about 6 mb. above the February normal.

Bright Sunshine.—During the spell of coldest weather clear skies were prevalent, and in some southern, south-western, and northern districts, the total duration of sunshine for the whole month exceeded the normal. In nearly all parts of England, however, it was deficient, the mean loss per day being 0·5 hour to 1 hour over a very large area. At Birmingham the percentage of the normal was only 16, but at Jersey it was 117, at Woolacombe 128, Aberdeen 130, and at Haverfordwest 131.

Aurora was observed at Glasgow on the 4th, at Ampleforth on the 12th and over a very large area north of latitude 54° on the 15th. Another display was seen at Stornoway on the 19th. Faint auroral lights were also observed in some Scottish localities on the 14th and 25th.