

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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ABNORMALLY MILD.

In all parts of the British Isles the abnormally mild weather which set in just before Christmas was continued nearly throughout the whole of January. At South Kensington (roof station) the temperature was above the freezing point continuously from December 17th, throughout January, and up to February 3rd. During the month the type of weather was persistently cyclonic, so that the unusually high temperatures which were so widely recorded were accompanied nearly everywhere by much precipitation. It is noteworthy that at such a high level station as Sheepstor (Devon), 749 ft. above mean sea level, no snow fell throughout the month, an experience quite unique for January in the history of this station. Sleet and snow were not infrequent, however, in some parts of Scotland, and on the 24th a heavy snow-storm was reported at St. Andrews.

The only really cold weather experienced generally during the month occurred between the 11th and 16th, and it was during this brief wintry spell that the falls of snow of any significance occurred. On the 10th a very decided fall of temperature occurred in England and Ireland, the 7h. readings at some stations showing a decrease of as much as 8·3a as compared with the previous day. This change appears in some cases to have been initiated by a line-squall which swept across south-east England late in the afternoon of the 9th. During the night of the 15th–16th under the influence of relatively high pressure over England and France there were several degrees of frost inland, and a dense fog in some parts of London. Apart from this interlude there was no cold weather at all, and day after day the temperature rose to abnormal levels, the maximum temperatures recorded at numerous stations although equalled (mainly in 1916) having never before been exceeded in records, in some instances extending over fifty years. The frequency with which maxima between 284a and 288a were recorded was very remarkable; there were 24 such days at Falmouth, 22 at Dublin (Phoenix Park), 21 at Baldonnell (Dublin), 20 at Isle of Grain (Kent), and Birr Castle, and 19 at Kew Observatory and Nottingham. At Llandudno on the 4th a maximum of 289a was recorded.

A feature of the month was the persistence of mild damp winds from the south-west or west, with much low cloud. There was occasional fog on the south-west coasts and on the high ground near the English Channel, but little inland on the low ground. There were a few fine, clear days, especially in the middle of the month.

In Scotland the very mild conditions which had marked the last week of 1920 persisted during the first ten days of the month, and then for some days colder weather was experienced, with a minimum of 261a at Braemar on the 15th. Thereafter mild conditions were again much in evidence—with 287a at St. Andrews and Kettins on the 20th, and at Fortrose on the 21st—broken by a touch of cold around the 24th. On the whole the month was a very mild one, though much less mild than the January of 1916 or of 1898. During the first ten days or so there were some heavy falls of rain in the west and south—at Glenquoich 81 mm. on the 5th; from the 13th to the 15th any precipitation consisted mainly of snow; on the 16th and 17th there were moderate to heavy falls; whilst from the 21st onwards there was rain on every day in many districts, with as much as 107 mm. at Invergarry on the 21st and 74 mm. at Glencarron on the 27th. In east and north-east there were not a few fine days, and in parts of Forfarshire and Aberdeenshire aggregates were below the normal; but over the greater part of Scotland the month ranks as a very wet one, with fully twice the normal in some districts, e.g. in Berwickshire, around Edinburgh and Glasgow, and in parts of Argyllshire and Dumfriesshire. At Glencarron (447 mm.) the month was the wettest January for at least 35 years; at Poltalloch (Argyllshire) the wettest for at least 55 years; and at Rothesay the wettest since 1872. Here and there, however, in the wettest areas aggregates were larger in 1916 or 1903. The weather was very stormy from the 3rd to the 6th, from the 18th to the 23rd, and at the end of the month. There was some snow between the 11th and the 18th, and on the 24th there was a fall along the east coast with as much as 8 inches at Dundee.

The following notes supplied by observers illustrate the general character of the month:—COPDOCK (Ipswich).—The outstanding feature of January, 1921, was the unprecedented warmth, the mean maximum temperature (282·7a) the mean minimum (277·4a) and the mean temperature for the month (280·1a) all exceeding the readings in 1916, which was itself a record January. There were no less than 17 days on which the temperature exceeded

283 a. MELTHAM (Yorks).—With the exception of January, 1916, which was a little warmer, it was the mildest January in 42 years. WORKSOP (Notts).—A very mild month, though the day temperatures were not quite so high as in 1916. The minimum temperature during the night of the 9th (284a) was exceptionally high and was higher than any previous night reading in either January, February or March. MALVERN (Worcester).—Abnormally mild with temperature on eight occasions rising during the night. Bromyard (Hereford).—Very mild; snowdrops in bloom on the 9th. ROSSON-WYE.—The mildest January on record at this station. On 20 days the maximum temperature reached 283a and on no occasion was it below 277a. The warmth of the nights was unparalleled at this station during 45 years. TOTLAND BAY (Isle of Wight).—The smallest amount of sunshine (38 hours) for any January here. On the other hand the mean temperature (281·3a) was, except in 1916, the highest for January at this station during 35 years. LEYLAND (Lancs.).—The wettest January (136 mm.) yet recorded here. DUBLIN (Fitzwilliam Square).—Only thrice during the past 55 Januaries has the mean temperature exceeded that of January this year (281·4a); in 1875 it was 281·6a, in 1898, 281·8a, and in 1916 281·7a.

Air Pressure.—As shown by the map on page 3 the mean monthly trend of the isopleths was of a normal type, but the gradient was much steeper than usual. During the month deep depressions frequently passed between Iceland and Scotland as they travelled eastwards. They were accompanied by numerous minor disturbances which affected the British Isles in general, while on two occasions the main system was centred over these regions, notably about the 12th–13th and again at the close of the month. Stormy conditions were experienced occasionally, especially on the 18th, when a severe westerly gale swept across the British Isles. Gusts of over 60 miles per hour were reported from many parts, while in north-west England and on Salisbury Plain the maximum speed (at 60 ft. above ground) was nearly 80 m.p.h.

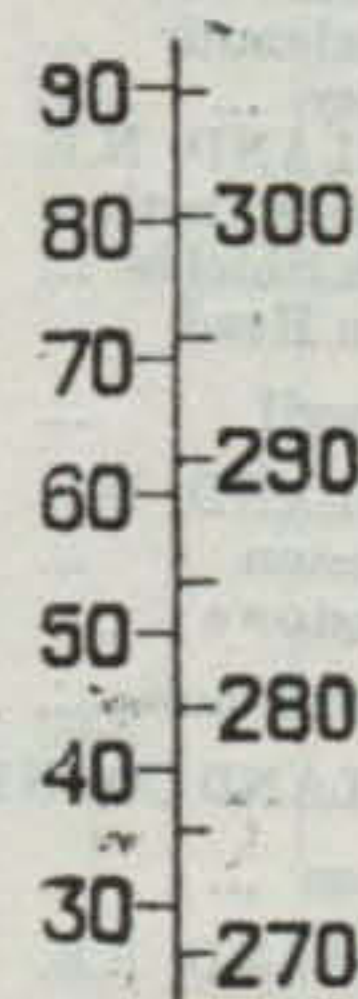
Temperature.—The mean monthly temperature was above the normal in all Districts, the excess ranging from 3·8a in the Midlands and in England East to 1·2a in Scotland East. For the week which ended on the 29th the mean temperature at Hawarden Bridge and Hereford was as much as 5·7a above the normal.

Precipitation.—Except in Ireland South and in the English Channel where there was a slight deficiency of 1 mm. and 4 mm. respectively the total rainfall for the month was above the normal in most Districts (see Table I. p. 2). Over the British Isles as a whole in accordance with previous experience in abnormally mild winter months, the total rainfall was high. It failed to reach the normal over small areas in the east and south, while more than twice the normal fell in the neighbourhood of the Cheviot Hills. Less than 50 mm. fell in the south-east of England and in the east of Aberdeenshire, the range in Scotland being from 33 mm. in the east to 810 mm. at Loan. A considerable area in the west of Scotland recorded over 250 mm. In Ireland 50 mm. were recorded in the neighbourhood of Dublin, whilst small areas in the mountain regions of the west had over 250 mm. In the English Lake District 1,080 mm. were recorded at the Styne, near Borrowdale. At Dungeon Ghyll 155 mm. and 105 mm. fell on the 8th and 9th respectively. A large area in the north-west of Scotland had more than 50 mm. on the 21st, and at Ardgour 87 mm. was recorded on the 5th. For the kingdom as a whole the general rainfall expressed as a percentage of the normal was: England and Wales, 146; Scotland, 168; Ireland, 119; and the British Isles as a whole, 145.

Sunshine.—Except in Scotland East, where there was a small excess of 0·10 hour per day, the mean daily amount of sunshine was below the normal in all Districts, the deficiency ranging from 0·70 hr. per day in England south-east to 0·04 hr. in Scotland west.

Optical Phenomena.—Solar and lunar halos were frequently seen; and the Zodiacal Light was observed at Oxford on the 9th and 12th, and at Tenbury on the 31st.

Aurora was seen at Baltasound, Deerness, Aberdeen and Eskdalemuir on the 10th; at Aberdeen on the 17th; and at Deerness on the 30th.



Temperature Scales.