

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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Mostly Fine, but with much Fog.

During the greater part of November the British Isles lay on the western edge of a continental anticyclone, and under these conditions the month for the most part was a fine one. During the first week, however, and from the 20th to 24th sharp frosts occurred at many of the inland stations, the minimum temperatures recorded during the second of these cold spells being lower than any recorded this season up to that date. From time to time, on the other hand, cyclonic disturbances approached the British Isles from the Atlantic, and under their influence the winds blew on many days from points between South and West and brought a general rise in temperature, so that on the balance the mean temperature of the month did not differ greatly from the normal. There were, however, many sunny days, especially in East Anglia, and at Copdock (Ipswich) where 104 hours were registered, it was the sunniest November on record. At this station during October and November the total duration of "bright sunshine" was 304 hours, compared with only 289 hours in August and September; at Felixstowe the corresponding figures were 321 and 314. Mr. J. Baxendell, of Southport, points out that November was the twelfth successive month with a deficiency of due North-East winds, and that it added another to the remarkably long list of humid months of the present year.

A notable feature of the month was the great contrast it presented to November of last year, a month memorable for its record frost and snow. At Sheepstor, Devon, for instance, the mean maximum temperature was 284.1 a compared with 279.0 a last year, and there was no snow this year, whereas it fell on eleven days last year; equally conspicuous contrasts were shown at numerous other stations.

In Scotland the month was on the whole extremely mild, and during the last sixty years November has had a higher mean temperature only in 1897 and 1899. The only really cold weather occurred from the 22nd to 24th; on the 22nd with a dense fog, the temperature at Leith did not rise above 276 a, and at Balmoral on the 24th the minimum was 264 a. The highest readings occurred generally around the 9th, 14th or 20th, with 289 a at Banff on the 9th. Almost throughout the month, and notably during the first week, the temperature, especially by night, was much higher in Scotland than in many parts of England. Thus at Edinburgh ground frost occurred on only 3 nights, compared with 17 at Kew Observatory. The mean daily range of temperature was abnormally low. On the 22nd and 23rd a dense fog was experienced in the Forth and Clyde areas.

For the autumn season which ended on November 27th the mean temperature was in excess of the normal in all parts of the United Kingdom, except in England East, the Midlands, and England South-East, where it was about normal. Rainfall for the same period, except in Ireland, was decidedly less than the normal. Bright sunshine was deficient, except in England East and England North-West, where there was a slight excess.

Flying Weather.—Considering the time of year, the month was favourable for flying, the principal exceptions being that conditions were unsettled for a few days about the middle of the month, with a general gale on the 15th, and again during the past few days. The 28th was very unfavourable in South-East England, with low clouds, mist and occasional rain. The rest of the month was mainly fair in the eastern districts, but there was a good deal of fog at night, which occasionally persisted locally all day. In the Midlands there was much fog between the 20th and 23rd.

Air Pressure.—As shown by the map on page 143 the isopleths of mean pressure had a more southerly trend than normally, and the gradient, especially over the southern half of the Kingdom, was much steeper than usual. There was no instance during November of a primary depression passing directly across the British Isles. During the first four days of the month the principal feature on the weather map was an anticyclone over Scandinavia, a system which was associated with some low temperatures in parts of the British Isles. On the 2nd at Manchester a minimum of 272 a was recorded in the screen and 265 a on the ground, and on the 4th corresponding readings at South Farnborough were 269 a and 267 a, the maximum on the latter day at Kew Observatory, owing to persistent fog, being only 276 a. A good deal of fog prevailed during these days, but there was plentiful sunshine, for instance, as much as 8.5 hours were experienced at Ventnor on the 2nd. On the 5th an anticyclone moved north-eastwards from the Azores and persisted over Central Europe during several days, with the result that over the greater part of the British Isles a quiet type of weather continued until the 11th. Fog, however, was again frequent and the nights were often cold and 267 a was recorded on the 6th at Howden and 269 a at Manchester (Aerodrome), the maximum at Croydon this day being

only 277 a. The 9th was an especially fine day and from seven to eight hours of sunshine were registered in the South-West of England and in the Channel Islands, with a maximum temperature of 289 a at Torquay. During the 10th a deep depression passed to the north of Scotland and caused south-west gales and rain along the western seaboard and in Shetland. This system was followed by another depression which approached Iceland from the south-west on the 12th, and during its passage eastwards on the following day caused thunderstorms and hail in Scotland. Another very deep depression appeared in the same region during the night of the 14th and caused strong south-westerly gales on the 15th over the whole of the British Isles, and was followed by a very warm night, minima of 283 a and over being common. These gales were especially severe in the North and West of Scotland and from Strathpeffer to Rothesay trees were uprooted by the winds, which also caused exceptionally high tides in some of the Lochs. At Edinburgh on the 15th at 8 h. 5 m. a gust of 74 miles per hour was recorded, and 70 miles per hour at 12 h. 30 m. was recorded at Paisley on the same day. Torrential rains and floods occurred in Cumberland and Westmorland; and there were many shipwrecks round the British coasts. During the 17th a rapid increase in air pressure occurred over Scandinavia, while an extensive depression stretched from Iceland to the Azores, conditions which were accompanied by rain in western Britain. On the following day 47 mm. of rain fell at Stornoway and 40 mm. at Blacksod Point. Thereafter until the close of the month the weather of the British Isles was dominated by anticyclonic conditions which persisted over Scandinavia and Central Europe, and during this period a very sharp frost occurred. From time to time, however, depressions came in from the Atlantic, and there was a gale in the western parts of the English Channel on the 24th, while on the 26th a V-shaped depression brought southerly winds and rain to some of the western stations, 27 mm. falling at Valencia Observatory and 47 mm. on the following day at Pembroke. The closing days of the month were mild and rainy.

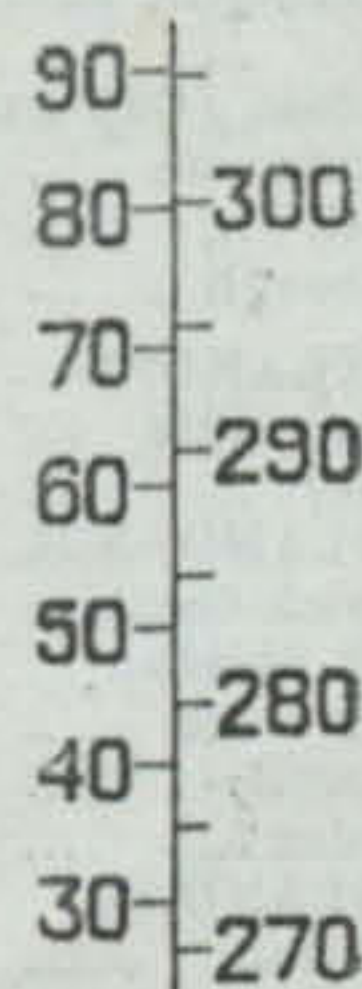
Temperature.—The mean temperature of the month was above the normal in all Districts, the excess ranging from 0.1 a in England East to 2.0 a in Ireland North. This was the sixth month during the present year in which all Districts exceeded the normal, the other five months being February, March, May, June and October. The highest temperature recorded during November was 290 a at Weymouth on the 8th and at Ardnornish on the 15th; and the lowest 264 a at Balmoral on the 24th.

Precipitation.—Except in Scotland North, where there was an excess of 21 mm., the total rainfall for the month was below the normal in all Districts (see Table I, p. 142), the deficiency ranging from 58 mm. in the English Channel to 2 mm. in Ireland North. At Liverpool (Bidston) the total for the month (16 mm.) was the lowest in November at this station during fifty-five years, and at Blundellsands (Lancs.) the total (23 mm.) was the lowest in forty-five years; and at Leyland (Lancs.) the total (40 mm.) was the lowest yet known here in November. The total rainfall for the month everywhere in England and Wales was below the normal, and, except in the West and part of the South, was generally less than half the normal. Over the remainder of the British Isles the total rainfall relative to the normal exhibited an increase from the South-East to North-West, and there was an excess over the whole of the western half of Ireland and the north-western half of Scotland, reaching a maximum excess of 50 per cent. in the Hebrides. The general rainfall expressed as a percentage of the normal was:—England and Wales 49, Scotland 106, Ireland 110, and the British Isles as a whole 87.

Sunshine.—The mean daily amount of sunshine varied from 0.87 hr. in Scotland West to 2.99 hr. in the English Channel, and the departures from the normal ranged from +0.78 hr. per day in England East to -0.91 hr. in Ireland North.

Optical Phenomena.—On the 16th a lunar rainbow was seen at Eskdalemuir and a parhelion at Ross-on-Wye. The Zodiacal Light was observed at St. Louis Observatory (Jersey) on the 9th, 10th, 19th, 22nd and 23rd.

Aurora was seen at a few Scottish stations on the 5th, 6th, 15th and 16th.



Temperature Scales.