

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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Dull and Cool.

Like June and July, August was characterised by dull, cool weather and a general absence of any really hot days, a prominent feature of the month's weather being the few occasions on which the maximum temperature touched or exceeded the normal. At most stations, moreover, the mean temperature was lower than that of the two months which preceded it, a result largely due to the unusually low temperatures which occurred during several of the nights, the minimum temperatures recorded at some of the stations on the 20th, although equalled, having never been lower in August in records extending in some instances over more than 40 years. At Eskdalemuir there were seven occasions when the minimum temperature fell below 279 a, and at Benson there were six. Ground frosts, moreover, although not very severe, were experienced at an abnormally large number of stations.

A striking feature of the month was the erratic way in which the sunshine was distributed on many occasions. Thus during the week which ended on the 14th the percentage of the possible sunshine at Rhayader in central Wales was only 5, and at Crathes (Kincardineshire) only 9, but in Guernsey it was as high as 73. During the week ended on the 21st large differences were again recorded, the percentage at Gordon Castle being only 15, compared with 42 at Dundee; 14 at Norwich, compared with 28 at Yarmouth and 38 at Southend; and 28 at Southampton, but 52 at St. Leonards. During the following week the percentage in Guernsey was 54, but at Malin Head and Castlebay it was as low as 8 and 10 respectively.

Between the 10th and 16th, and again from the 20th to the close of the month, anticyclonic conditions predominated, and during these two periods many stations had no rain, with the result that their total rainfall for the month was well below the normal. At some other places which exceeded the normal the excess was largely due to very heavy precipitation on the 4th and 17th. At Worksop the total rainfall for the month was only 16 mm., the smallest total for August in records extending over 46 years. At Nottingham the total was only 22 mm., smaller aggregates having been recorded only twice before in August at this station during 55 years, namely 18 mm. in 1884 and 11 mm. in 1899. At some of the stations the number of rain-days during the month was unprecedentedly small, noteworthy examples being 3 at Killerton, 4 at Sevenoaks and Tunbridge Wells—the smallest ever recorded in August at the latter station during 35 years—and 5 at Totland Bay (Isle of Wight), the lowest in 34 years.

The thunderstorms of August, which mainly occurred during the early part of the month, were less prevalent and much less widespread than those of June and July. Strong winds were infrequent and gales were rare. At Tenbury, on the 12th, there was a time of pitch-black darkness, with heavy rain and hail, the latter the size of marbles. On the same day at Birmingham, when 23 mm. of rain fell, there was loss of life and much damage caused by floods. Extensive floods also occurred at West Linton as the result of heavy rain on the 8th and 9th (59 mm.) and in the neighbourhood of Edinburgh, following exceptionally heavy rainfall, on the 17th. On the latter occasion 79 mm. fell in 24 hours, and all the rivers in the district overflowed doing considerable damage.

In Scotland from the 1st to 5th rain was more or less general, with more than 25 mm. at places in the west and south on the 4th. On the 8th there were very heavy falls within a short period on the Pentland Hills, as much as 55 mm. falling in three hours at Cockburn Hill, on the north-eastern slopes of that range, and on the 9th heavy local thunder rains occurred. A short spell of fine weather followed, but on the 16th heavy rain fell in the north-west, and on the 17th abnormally heavy falls were experienced over wide areas to the south of the Grampians, Cockburn Hill registering 96 mm. in 24 hours, Paisley, Edinburgh and West Linton fully 75 mm., and various places at least 50 mm. A feature of this storm was the steadiness with which the rain fell. Thus at Paisley nearly the whole of the total of 81 mm. fell on the 17th, at an almost uniform rate between 13 h and 22 h. This notable rain-storm was followed by dry weather in most districts until late on the 31st, when conditions once more became unsettled.

Air Pressure.—As shown by the map on page 101, the mean monthly trend of the isobars differed but little from that of a normal map. The mean monthly pressure was, however, very much higher than usual, the departures from the normal at the telegraphic reporting stations ranging from +7.1 mb. at Lerwick, Valencia Observatory, and Roches Point, to

+3.8 mb. at Dover. During the first four days of the month the air pressure was low over the Iceland-Farøe region, and high to the south and south-west of England, conditions which were associated with unsettled weather over the British Isles generally. At 7 h. on the 4th a depression was shown on the weather map over the north-west coast of the British Isles (track B), which caused continuous rain in Ireland and in parts of Britain. On the 7th another depression approached Ireland from the Atlantic, and, moving slowly, was centred over Scotland on the morning of the 9th (track C), its passage causing rain in the north and north-west districts, with thunderstorms in places. From the 10th to 16th anticyclonic conditions prevailed, and during this period the weather was mainly fair, but with mist and fog locally. A depression which had travelled rapidly eastwards from the north-west of Ireland was centred over the Yorkshire coast at 7 h. on the 18th (track D), its passage being associated with exceptionally heavy falls of rain in Scotland and Ireland during the 17th. This depression moved away north-eastwards during the 18th, and a secondary trough passed along the English Channel (track E) and brought heavy rain to the south of England, 27 mm. being measured at Croydon and Hastings. A feature of the weather at the rear of this depression on the 19th was the low temperature by day and the cool nights, maximum temperatures below 289 a being general over the British Isles, with ground frosts at a number of stations. At 7 h. on the 20th a depression was centred over Denmark, and at its rear the temperature was again low and in parts of Scotland did not rise above 284 a, nor above 285 a in northern England, and even remained as low as 287 a in the Cornish Riviera. Similar conditions prevailed on the 21st, and in north-east England there was heavy rain, as much as 43 mm. falling at Howden (Yorks). From the 22nd to the end of the month anticyclonic conditions were experienced all over the British Isles, and very generally there was little or no rain. The temperature, however, was low for the time of year, and in places there was much fog and mist, although on several days the sunshine records were good. On the last day of the month some of the northern stations registered minima below 277 a.

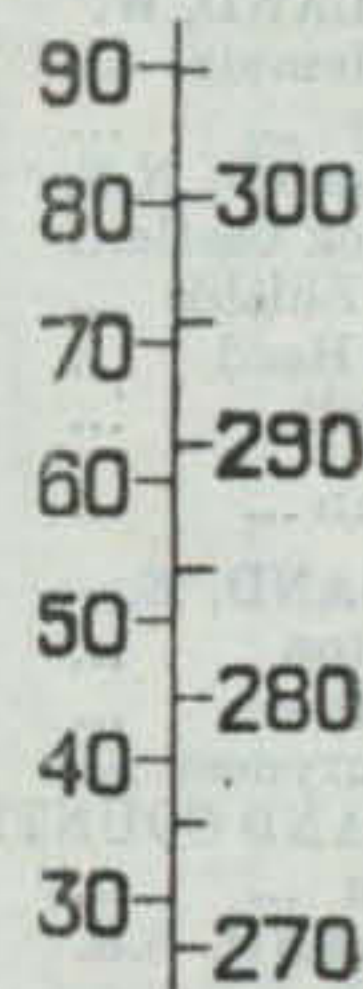
Temperature.—The mean temperature was below the normal in all districts, the deficiency ranging from 1.9 a in England south-east to 0.6 a in Ireland south. At the individual stations the highest reading recorded was 299 a at Southend on the 8th, and the lowest 272 a at Braemar on the 26th. At Greenwich the shade minimum of 278 a recorded on the 20th was only 2 a above the lowest figure reached in August since 1841; while at Kew Observatory (279 a on the 21st) there had been no August night so cold since 1891. The reading of 280 a on the same date at Falmouth, where the observations extend over more than half a century, equalled the previous "record" of August, 1890.

Precipitation.—Except in Scotland west and east, where there was an excess of 16 mm. and 20 mm. respectively, the monthly totals of rainfall were below the normal, the deficiency varying from 42 mm. in Ireland south to 17 mm. in England east. Practically the whole of England had less than half the normal, and in Wales the rainfall was generally below the normal in spite of the heavy rain on the 4th. The fall was also deficient in Ireland, but was almost everywhere in excess of 50 mm. In Scotland the rainfall was considerably heavier than this, particularly in the valleys of the Forth and Clyde, where more than 130 mm. fell over a considerable area. The general rainfall, expressed as a percentage of the normal, was:—England and Wales 59, Scotland 85, Ireland 62, and the British Isles as a whole 68.

Sunshine.—Except in Scotland north, which had a small excess of 0.02 hr., the mean daily amount of sunshine was below the normal in all districts, the deficiency ranging from 1.38 hr. per day in England north-east to 0.33 in Scotland east and Scotland west. The daily mean in the English Channel district was 7.01 hr., but only 3.33 hr. in Ireland north.

Optical Phenomena.—Solar and lunar halos were only rarely reported. A sun pillar was observed at Aberdeen on the 18th.

Aurora was seen at Wick on the 11th, at Eskdalemuir on the 16th, and at Deerness and Wick on the 22nd.



Temperature Scales.