

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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AUGUST, 1927: UNSETTLED AND WET,

General.—Apart from a few fine days at the beginning and end of the month, the weather during August was very unsettled and wet.

On the 1st an anticyclone was centred over south-west Ireland and, apart from continuous rain in the south-east of England, associated with a depression over France moving in a north-north-easterly direction, mainly fair showery weather prevailed in most districts. As the anticyclone moved eastwards fine, warm weather became established and prevailed up to the 5th, by which time the anticyclone had passed to Scandinavia. The development of thunderstorms locally on the 5th and 6th marked the end of the fine weather, and from then until near the end of the month the passage of a series of depressions across or near the British Isles maintained unsettled wet weather except in the north of Scotland where fair conditions prevailed. After the 24th a high pressure system to the south of the British Isles extended its influence over the southern districts with a consequent improvement in the weather and in many districts little or no rain fell during the remainder of the month; in the north and north-west unsettled weather persisted, but during the last few days of the month fair to fine warm weather prevailed generally.

The following remarks taken from observers' notes illustrate the character of the weather of the month:—Southport—The remarkable deficiency of west-north-westerly and north-westerly winds—Southport's principal summer sea breezes—continued and the duration of light easterly to southerly airs was again considerable. The month was, therefore, warm, dull and thundery with a marked excess of rainfall. Huddersfield (Oakes)—Mild and very wet. Giggleswick—Mild and very dull. Copdock—After the deluge on the 1st hopes were raised by three brilliant and beautiful days, but they were doomed to disappointment by a spell of weather from the 5th to the 20th about as unpleasant as could be well imagined: nearly $3\frac{1}{2}$ inches of rain fell in this period and harvest prospects looked very dismal—conditions, however, improved and from the 21st onwards there was practically no rain, and although the sunshine was not over abundant the weather was good enough to enable harvesting operations to make rapid progress. Halstead—The weather was remarkable for the long spell of wet weather which lasted almost without a break from the 5th to the 25th. Littlehampton—The weather of the month was mainly dull and unsettled with much rainfall. Totland Bay—The mean relative humidity of 84 per cent. is the highest recorded at 9h. in any preceding August during the past 33 years. Dublin—August 1927 was one of the wettest summer months experienced in Dublin since the record wet August of 1917. Only at the beginning and the close was the weather fine and comparatively settled. Cork—A dull cloudy month with temperature below the normal and a persistent rainfall slightly in excess of the average.

Pressure and Winds.—For the third consecutive month, the mean pressure was below the normal in all districts and was more than 5 millibars below the normal in southern Ireland. The prevailing winds were south-westerly.

High winds, reaching gale force locally about the 17th, 21st and 27th, occurred frequently between the 6th and 31st. At Lerwick on the afternoon of the 27th the wind in a south westerly gale attained a mean hourly velocity of 45 m.p.h. and in a gust touched 64 m.p.h.

Temperature.—The mean temperature of Districts 1-10 was $59\cdot2^{\circ}\text{F}$. and was $0\cdot8^{\circ}\text{F}$. above the normal. The mean temperature was above the normal in all Districts except the Channel Isles and Scilly but the departures from the normal were small, ranging from $+1\cdot5^{\circ}\text{F}$. in Scotland N. to $-0\cdot1^{\circ}\text{F}$. in the Channel Isles and Scilly.

The highest temperatures occurred during the first week and the last few days of the month, and the lowest screen temperatures towards the end of the month in most districts. Ground frost occurred at a few stations in Scotland.

The extreme temperatures for the month were:—(England and Wales) 80°F . at Cullompton on the 5th and at Cranwell, Mursley and Rhyl on the 6th, 34°F . at Castleton on the 30th; (Scotland) 78°F . at Ruthwell on the 5th and 30°F . at Braemar on the 25th; (Ireland) 77°F . at Waterford on the 5th, 38°F . at Killarney on the 4th and 5th and at Dublin (Phoenix Park) on the 5th.

The mean temperature for the summer quarter ending August 1927 was normal in Scotland N. and less than a degree Fahrenheit below the normal in the remaining districts; the mean deficiency for the British Isles as a whole amounting to about $0\cdot5^{\circ}\text{F}$. There were no remarkably hot spells during the summer, the highest temperature recorded during the season being 85°F . at London (Greenwich and Camden Square) on July 16th.

Precipitation.—The outstanding feature of the weather of August was its wetness, and except in the north and north-west of Scotland

and in parts of the north of Ireland and in one or two small areas in England, monthly totals of rainfall were well above the normal. At most stations the number of days on which rain fell exceeded twenty, and at Marchmont there were only three days immune from rain.

The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 140, the highest value recorded since August 1917; the values for the constituent countries were: England and Wales 155; Scotland 121; Ireland 126. Over England and Wales as a whole, August 1917 was wetter with the general precipitation amounting to 210 per cent. of the normal; over Scotland and Ireland August 1923 was wetter, the general precipitation amounting to 161 per cent. and 147 per cent. respectively.

In some north and north-western districts of England and Wales monthly totals exceeded twice the normal. At Durham, Giggleswick and West Kirby the month was the wettest August since observations commenced in 1850, 1906 and 1900 respectively. At Bath the total for the month has been exceeded in August only once since 1899, viz., in August 1917. Heavy rain fell on the 8th in northern and eastern districts, amongst the largest falls on that day being 58mm. at Harrogate, 44mm. at Spurn Head, and 43mm. at Cockle Park. Heavy falls were again recorded between the 17th and 20th and in most districts of England and Wales, the week ending August 20th was the wettest week during the month; in the Midland Counties the total general rainfall for the week was almost four times the normal. Amongst large daily falls during this period were 45mm. at Bradford and Scarborough and 50mm. at Huddersfield on the 18th. At Fowey 87mm. were measured on the morning of the 31st. In some eastern districts of England and Wales little rain fell after the 21st.

In the north and north-west of Scotland there was a decided deficiency, this being particularly marked in Orkney and Shetland where the month's total was less than half the normal, while the remainder of Scotland, except for a small district in the south-west had aggregates much in excess of the normal. Exceptionally heavy falls were recorded in many districts, particularly from the 5th to the 12th. The rain storms of the 8th and 9th were of unusual intensity in central Perthshire and the Lothians. In Edinburgh the month was the wettest August since 1770, with the possible exceptions of 1829 and 1877.

In some northern districts of Ireland there was a deficiency, but elsewhere monthly totals exceeded the normal.

Thunderstorms occurred frequently, mostly around about the 6th and the 24th. In Scotland thunderstorms occurred over limited or more or less wide areas, on as many as 21 days:—on the 1st, from the 4th to the 13th, from the 17th to 19th, from the 21st to 24th and on the 26th, 28th and 30th. The most general storms were those of the 5th and 9th which involved the greater portion of Scotland, south of the Caledonian Canal, and resulted in serious flooding in central Perthshire and the Lothians. Others of importance occurred on the 21st in the north and north-east and on the 23rd in the south and south-west.

A correspondent at Lutterworth states that the three months ended August were remarkable for the frequency of thunderstorms in that district and that during this period thunder was heard on 19 days, the largest number recorded in this period "during at least the last 12 years."

Sunshine.—For the third consecutive month the mean daily duration of sunshine was above the normal in Scotland N. Sunshine totals were above the normal in Ireland N., about normal in Scotland W. and E. and England E., and below the normal in the remaining English Districts and in Ireland S. The largest mean daily excess was $0\cdot89$ hrs. and occurred in Scotland N. (mean daily duration $4\cdot58$ hrs.) and the largest deficiency was $1\cdot10$ hrs. and occurred in the Midland Counties (mean daily duration $4\cdot33$ hrs.).

During the short periods of fair to fine weather associated with an anticyclone or a wedge of high pressure, good sunshine records were recorded in several districts notably between the 2nd and 5th, on the 17th, between the 23rd and 25th and on the 29th and 30th. Amongst the largest daily amounts recorded were 14·4 hrs. at Littlehampton on the 3rd, 13·3 hrs. at Southport on the 17th, 13·4 hrs. at Leuchars on the 25th, 12·8 hrs. at Llandudno on the 29th, 12·5 hrs. at Cahirciveen on the 30th and 12·0 hrs. at Tieve on the 28th and 30th.

Fog.—Fog occurred locally on various days. It occurred most frequently in Scotland and northern England.

Miscellaneous Phenomena.—Halos of 22° were observed at many stations on various dates. Sun pillars were observed at Oxford on the 18th and at Stonyhurst on the 21st. Aurora was observed in Scotland on the 17th, 20th, 21st, 27th, 29th and 31st.