

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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AUGUST, 1923: RATHER COOL AND WET, WARM AND SUNNY LOCALLY.

General.—Fine sunny weather marked the first day of the month, but on the second and third a deep depression passed across Ireland and Scotland, causing heavy rain in these countries, with high winds on many parts of the coast and gales in Ireland and Wales. In the rear of this disturbance high pressure spread from the south, and although further depressions from the Atlantic maintained unsettled conditions in the north and west of the British Isles, fine, warm weather prevailed in the south-east for nearly a fortnight. At Kew there was no measurable rain between 7h. on the 1st and the night of the 14th-15th while sunshine reports exceeded 10 hrs. almost every day during this period. Temperature rose well above the average and exceeded 80°F. on several occasions, but failed to reach the high figures obtained in July. On the 14th a shallow depression developed over England, causing thunderstorms and heavy rain locally at night as it moved eastwards. On the next day maximum readings in the south showed a decrease of about 10°F. owing to northerly winds bringing cold air from the rear of the primary depression near Iceland. During the latter half of the month depressions extended their influence also to the south-east counties, though heavy rain was somewhat rare in this region until the last week. Gales or high winds occurred frequently on the coast but were particularly severe on the 29th-30th, when a deep depression passed across England, causing strong gales also at some inland stations.

The general character of the month is illustrated by the following remarks taken from observers' notes and returns:—**Berkhamsted.**—A spell of fine warm weather during the first fortnight. **Copdock (Suffolk).**—The sunniest August in my records with the exception of August, 1911. Rainfall considerably below the average. **Fulbeck.**—Thunder conditions prevailed during the latter end of the month. **Keswick.**—The wettest August for 32 years. **Scaleby.**—The wettest August registered here for 60 years (209mm.) the next wettest being August, 1877 (184mm.). **Skegness.**—A beautiful month, the sunniest August on record. Although thunder and lightning occurred on 5 days yet the storms were light. Remarkable freedom still from east winds. **Torquay.**—Fine warm weather continued without a break to the 20th. Subsequently conditions were less settled and a cooler spell set in after the 28th. **Aberdour.**—A cold wet sunless month, harvest will be very late. **Cargen.**—This has been the wettest and most disappointing August experienced here. **Dublin.**—An unsettled month. At first the weather was seasonably warm, with at times rather heavy rainfalls. From the 16th onwards rain fell daily and there were very violent gales on the 2nd and 29th.

Pressure and Winds.—Except in the Channel Islands and Scilly the mean pressure of the month was everywhere below normal. The departure of monthly means of pressure at fixed hours from the normal varied from -5.7mb. at Wick to +0.1mb. at Scilly. The isobars of mean pressure trended from W.S.W. to E.N.E. over the greater part of the country and they lay closer together than those of the normal map.

Depressions were numerous and the track chart for the month is of considerable complexity. Seven primary and four secondary depressions actually crossed some portion of the British Isles. The lowest pressures of the month were experienced in Scotland North in connection with the depression (Track R) on the 22nd, but the lowest pressures generally were those of the 29th, associated with the depression (Track X).

The strongest winds of the month were those of the 2nd-3rd and 29th-30th, the former accompanying a depression which traversed Ireland and Scotland and passed into Norway (Track C), and the latter accompanying a depression which crossed the Midland counties and subsequently travelled up the Baltic Sea (Track X). The highest registered gust was one of 70 m.p.h. at Holyhead on the 2nd, but several exceeding 60 m.p.h. occurred during the two periods mentioned. Southport recorded the largest number of gales, five days of gale with a total duration of 32 hours being shown.

A very remarkable anemometer record was obtained at Southport on the 29th. The wind had gradually fallen to a calm in the late evening. Between 20h. 55m. and 21h. 5m. it rose suddenly to an average speed of about 50 m.p.h. with a change of direction from S.W. to N.W. The highest gust was 63 m.p.h. and the wind remained at gale strength till 11h. on the 30th. A remarkable feature of the record for the 29th is that all the speeds were either under 24 or over 39 m.p.h.

Temperature.—The mean temperature of Districts 1-10 was 58°F. With the exception of England East and the Channel Isles and Scilly

the mean temperature of each District was below normal. The extremes were +0.7°F. for England East (mean temperature 61°F.) and -1.3°F. for Scotland East (mean temperature 55°F.). During the week 5th-11th the temperatures of all Districts were above normal; at the same time mean daily ranges of between 25°F. and 30°F. were experienced in some inland parts of east and south-east England.

The extreme temperatures for the month were:—(England and Wales) 90°F. at Camden Square, Canterbury and Halstead on the 9th, 36°F. at Andover on the 31st; (Scotland) 79°F. at North Berwick on the 5th, 31°F. at Balmoral on the 29th; (Ireland) 77°F. at Newcastle on the 13th, 40°F. at Phoenix Park, Dublin and Lisburn on the 29th. Some ground frosts occurred, notably at the end of the month, but a temperature of 29°F. over grass was registered at West Linton (Peebles) on the 2nd.

Precipitation.—Rainfall exceeded twice the normal over two small areas, a region north of and including Inverness and one in the neighbourhood of the Solway Firth. A large part of the Midland counties and south of England had less than the normal but the remainder of England had between 100 per cent. and 150 per cent. of the normal, while in the extreme north-west the rainfall exceeded 150 per cent. In Scotland and Ireland the rainfall was above normal in all parts and several large areas had over 150 per cent. of the normal. At Grantown-on-Spey and Dumfries and in south-west Scotland generally the month was the wettest August on record but in some of the very wet areas the falls were less heavy than in, e.g., 1917 or 1912.

A noteworthy rate of rainfall occurred at Bexley Heath on the 24th. During a sudden thunderstorm which broke at 8h. 30m., 10mm. of rain fell in 7 minutes.

On the 2nd Keswick had a fall of 75mm. while on the 20th Lochalort (Inverness-shire) had one of 59mm., on the 29th Galashiels had one of 56mm. and Newcastle (Co. Wicklow) one of 54mm. Falls exceeding 50mm. also occurred at several rainfall stations notably in Cumberland and Wales.

Snow fell on the Cairngorms on the 24th and 29th.

Thunderstorms were comparatively frequent locally, mainly in the eastern counties of England: the greatest recorded number of days being 7 at Bennington (Herts.) and 6 at Geldeston (Norfolk). Local storms occurred on the 18th when the district lying between Southampton and the Humber was affected, but were more general about the 22nd-24th and the 27th. There were no wide-spread storms in Scotland. Slight falls of hail occurred.

Sunshine.—With the exception of England North-west and Scotland East the duration of sunshine was above normal in all Districts. The largest mean daily excess occurred in England South-east (+1.87hr.) and the largest mean daily deficiency in England North-west (-0.49hr.). The duration of sunshine reached 58 per cent. of the possible in England South-east and was only 25 per cent. of the possible in Scotland North.

The first half of the month was the brightest generally. At Kew the sunshine during this period exceeded 10hrs. almost every day and constituted a record for the first half of August. During the week 5th-11th Margate had 83 per cent. of the possible sunshine and Worthing had 79 per cent. At Copdock (Suffolk) 14hrs. were recorded on the 4th and the total for the first fortnight was 146hrs. At the beginning of the month records of 14-15hrs. were obtained: while those of 12-13hrs. occurred up to the end of the month.

England South-east being also the favoured region of July, the daily averages for the two months taken together are noteworthy, especially at the coast stations. Thus Eastbourne had an average of 8.8hrs. for the 62 days, while Tunbridge Wells had an average of 8.3hrs.

Fog.—There was little inland fog during the month. Conditions during the first fortnight favoured the development of mist and even thick fog at times in the Channel. There was sea-fog in the Waterford neighbourhood during the greater part of the week ending on the 11th.

Miscellaneous Phenomena.—Halos were very numerous observed, the majority being solar halos. Rainbows and coronæ were also rather frequent. On the 18th a very large waterspout was seen at 13h. 30m. about 2 miles out to sea at Brighton.