

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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JULY, 1928: Mainly dry, sunny and very warm, but wet and cool at the beginning and end of the month.

The weather of July, 1928, was remarkable for the long period of heat and drought, with abundant sunshine, which set in after the first week over most of England, Eastern Scotland and a large part of Ireland.

During the first three days of the month a deep depression moved N.E. from the Atlantic across the Hebrides to southern Norway, and generally cool unsettled weather with strong south-westerly winds was experienced. There were some heavy falls of rain in the North: 33 mm. at Eskdalemuir and 55 mm. at Sawrey (Lancs.) on the 1st, 30 mm. at Balmoral and 21 mm. at Hampstead on the 3rd.

A wedge of high pressure passed across the country early on the 4th, to be followed by a new depression which by the morning of the 5th was centred near the Hebrides. Rain became general for a time: 81 mm. fell at Bettws Garmon (Carnarvon), 43 mm. at Lancaster and 38 mm. at Aber, on the 4th, and 32 mm. at Foynes (Limerick) and 22 mm. at Birr Castle on the same day.

Another wedge passed across on the 7th, but although further depressions approached from the Atlantic between that date and the 26th they kept far to the west and north. In consequence, during this period pressure was always high in the South, and became high even in the North around the 17th, when an anticyclone occupied a central position over the British Isles. These conditions were associated over most of England and Ireland with dry weather, abundant sunshine and a rising temperature, and Eastern Scotland shared in the drought. Twenty successive days without rain was experienced at many places from East Anglia across to the borders of Wales, south-westwards into Devon and even locally in Southern Ireland. In Eastern Scotland some places had practically no rain between the 2nd and the 25th. Among the most notable periods of absolute drought were: 26 days at Llanthony Lock (Glos.), 22 days at Sheffield, Chatteris (Cambridge), Felsted (Essex) and Melbury House (Dorset).

Temperature as a rule reached its highest point on the 15th, when 90° was recorded in London, but in many places, especially in Scotland, Ireland and south-west England, the warmest time was around the 22nd, when readings of about 90° occurred again in south-east England. Generally unsettled and cool weather was eventually brought about by a depression which moved east-south-east from Iceland to Scandinavia between the 24th and 26th. On the night of the 26th rain fell generally in the South, and thunderstorms occurred in the South-west. Thunderstorms occurred more generally in the South on the 27th and extended to parts of Scotland and Ireland on the 28th and 29th. Secondary depressions maintained unsettled weather until the end of the month, although there were some fine periods. Some notably heavy falls of rain towards the close of the month were: 54 mm. at Ventnor on the 27th and 39 mm. at Swansea on the 31st.

The contrast between the temperature before and after the weather changed was very great. On the 30th-31st with northerly winds, snow fell on the upper reaches of Ben Nevis, the Cairngorms and other Scottish mountains.

Pressure and Winds.—Pressure exceeded the normal by over 5 millibars in the south-west of England, but was below normal in Central and Northern Scotland; in the Shetlands it was nearly 4 millibars below the normal. Winds were mainly westerly over England and Ireland and south-westerly in Scotland. They were frequently strong in Scotland, Northern Ireland and Northern England. There was a gale at Tiree on the 2nd, with 60 m.p.h. in a gust; at Dunfanaghy on the same date, with 75 m.p.h. in a gust; and at Lerwick on the 14th a gale reaching 65 m.p.h. momentarily.

Temperature.—The mean temperature for the month was above the normal generally over England except in the North-west. It was rather below the normal in the North and West of Scotland and in Ireland. After the cool first week a period of increasing warmth set in: 85° was reached at Cleethorpes on the 12th, 87° at Cromer and 88° at Bungay on the 14th. On the 15th, 90° was reported from Stroud Green and Tottenham, and 91° from Newport (Isle of Wight) and Camden Square (London). Very high readings were also reported on the 22nd:

86° at Newton Abbot, 87° at Shoburyness and 89° at Wisley. At a fairly large number of places this was the warmest day of the month. In Scotland the highest temperatures mostly came between the 11th and the 22nd: Logie Coldstone reached 76° on the 11th and Banff the same reading on the 14th. At Oban, Tiree and locally in the Hebrides, temperature never exceeded 60°. The coldest night in Scotland was that of the 30th-31st, with a minimum of 36° at West Linton and many minima below 40°. In Ireland 80° was exceeded on the 21st and 22nd and the night of the 30th-31st as in Scotland, yielded minima below 40°. The extreme temperatures for the month were:—(England and Wales) 91° F. at London (Camden Square) and Newport, I. of Wight, on the 15th, and 33° F. at Welshpool on the 13th. (Scotland) 76° F. at Logie Coldstone on the 11th, and at Banff on the 14th, and 36° F. at West Linton on the 31st. (Ireland) 83° F. at Killarney on the 22nd and 35° F. at Markree Castle (Sligo) on the 31st.

Precipitation.—The month was a dry one, in spite of the heavy falls of rain that occurred near the beginning and end of the month. The general rainfall of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 74; the values for the constituent countries were: England and Wales 71; Scotland 91, Ireland 63. The greatest deficiencies at individual stations occurred in south-east Ireland, the midlands of England and eastern Scotland: Kilkenny and Waterford both had slightly less than half the normal, as did Harrogate and Wakefield, and, in Scotland, Perth. Some of the smallest totals were 9 mm. at Wakefield, 11 mm. at Osgodby and Pontefract, and 12 mm. at Spurn Head and Worksop. At St. Heliers (Jersey), the total was 13 mm.—only 60 per cent. of the normal. From Ireland the lowest total reported was 19 mm. at Newcastle and Kilkenny. Totals appreciably above the average occurred at Bath (22 per cent. excess) Ventnor (25 per cent.) and Aspatria (33 per cent.), but were very rare outside Western Scotland. In western Inverness-shire, Glenquoich had twice the average, the total of 326 mm. being the largest recorded there in July for at least 50 years. At that station 78 mm. fell on the 10th alone, and on the same day Ardgour had 64 mm. and Glenelg 53 mm. Over most of England and Wales except the north-west the largest daily falls came between the 26th and the 30th, but in north-west England and North Wales the 4th was generally the wettest day—43 mm. at Lancaster, 38 mm. at Aber and 37 mm. at Aberystwyth. In southern Ireland the 4th was also outstanding: the fall of 32 mm. at Foynes on that day accounted for more than half of the month's total at that station: but for north-east Ireland the 26th, when 20 mm. fell at Belfast, was the wettest day.

Sunshine.—The month was a very sunny one in Eastern and Central England, but there was a considerable deficiency in western and northern Scotland and a moderate deficiency in Northern Ireland. Representative totals for districts expressed as a percentage of the normal ranged from 137 in England N.E. and S.E. to 83 in Scotland W. and 73 in Scotland N. The mean daily amount exceeded ten hours locally on the coasts of Sussex, Kent and Essex, but at Fort Augustus (Inverness) and Oban was only a little over two hours. In the sunny area many daily totals of over 15 hours were obtained. Ross-on-Wye measured 15.5 hours on the 14th—a "record" for that station for July. The same amount was measured at Jersey on the 12th and at Harrogate on the 15th. At Birmingham (Edgbaston) the total of 15.3 for the 14th was the largest there for 41 years. At many places in Eastern England there was more sunshine even than in July of the exceptional summer of 1921.

Fog.—Owing to the unusually low humidity prevailing during a large part of the hot weather, coastal fog, which is so frequently found to accompany heat, was very rare: it occurred once or twice, however, during the hot weather, on the west and south coasts of Ireland, along the south coast of England, in the Scilly Isles and at St. Ann's Head.

Miscellaneous Phenomena.—A mirage was seen at sea off Aberdeen on the 12th.