

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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JUNE, 1924: DULL AND UNSETTLED.

General.—During the first part of the month unsettled rainy conditions prevailed generally, but about the 14th there was a change to warmer, drier weather with, however, a good deal of cloud in some parts. The floods which occurred at the end of May continued for some days. Under the influence of an anticyclone near Iceland, fairer conditions prevailed in Scotland until the 6th, but rather cool, unsettled weather was general in the south, with occasional thunder. A depression which passed across south England on the 4th, brought heavy rain locally, but in the rear of this depression a temporary improvement was experienced in the southern and eastern counties. After this, cyclonic conditions prevailed again over the whole of the British Isles until nearly the middle of the month. On the 13th the high pressure area to the south of Iceland moved south-eastwards towards England, and fairer conditions set in. A cold northerly wind, however, prevailed on that day so that temperature failed to rise above 56°F. in many of the southern districts. Subsequently temperature rose gradually but on the 17th a depression moving northwards from the Bay of Biscay caused thunderstorms in many parts and rather heavy rain in places. From the 19th onwards, the weather in the south-east continued fair and warm with very little rain. In the west and north unsettled, rainy conditions were maintained.

The general character of the month is illustrated by the following remarks taken from the observers' notes:—Newquay.—The least June sunshine since 1907. A very uneventful month with no jumps of temperature. Skegness.—The first half of the month was very dull and wet, the second half bright and dry. South-westerly winds predominated during the latter part of the month. The lowest minimum temperature for any June since 1915. Torquay.—Unsettled almost the whole of the month and rather wet for the first twelve days. The outstanding feature was the amount of heavy black cloud which almost continuously passed over the district. While day temperatures were normal, many evenings and nights were cold. Walton-on-Naze.—The month will be remembered for its low temperature; the first half was fairly wet, the latter half too dry for vegetation. Fort William (Inverness-shire).—The first month since October, 1923 with a total rainfall above the normal, but wetness confined to the last week. Hawick (Roxburghshire).—Cold winds but good growing weather. Portree (I. of Skye).—Pretty fair weather until the closing days, then exceptionally heavy rainfalls. Dublin.—An "Atlantic" June of S.W. and W. winds, clouds and showers, with very high relative humidity.

Pressure and Winds.—The mean pressure was below normal everywhere save in parts of southern and south-eastern England. The deviation of monthly means of pressure at fixed hours varied from +1.0 mb. at Southampton to -2.5 mb. at Aberdeen. The isobars of mean pressure were irregular and trended from S.W. to N.E. in the north and W. to E. in the south.

Pressure distribution was largely cyclonic save for a few days at the middle of the month. After the 19th conditions were mainly anticyclonic in south and south-east England. The chart of depression tracks is complex for a summer month and six primary depressions traversed some part of the British Isles.

The highest pressure of the month, 1029 mb., was recorded at Pendennis and at Scilly on the 25th and the lowest, 990 mb., at Blacksod on the 11th.

The wind did not attain a mean speed of 38 m.p.h. for the duration of an hour at any anemometer station. A few gusts of 50 m.p.h. were registered on the 28th and 29th and Rosyth had one of 51 m.p.h. on the 29th. These gusts were associated with the depression (Track L.) On the evening of the 24th a disturbance of tornado-like character pursued a narrow track over part of the city of Belfast, doing a considerable amount of structural damage and inflicting minor injuries to a number of persons.

Temperature.—The mean temperature of Districts 1-10 was 56°F. The mean temperature of all Districts was below normal with the exception of that of Ireland S., which was normal, and those of England N.E. and E. which were above normal. The largest excess, 1.0°F., was experienced in England E. (mean temperature 58°F.) and the largest deficiency, 1.6°F., in Scotland E. (mean temperature 52°F.). The first week of the month was the coldest generally and temperature was very low in Scotland. The second and third weeks were the warmest. On the 26th, however, maximum temperatures exceeding 80°F. occurred at many stations in eastern England, and the midland counties.

The extreme screen temperatures for the month were:—(England and Wales) 82°F. at Camden Square (London) and Enfield on the 26th,

30°F. at Comondale (Yorks) on the 5th; (Scotland) 81°F. at Wolfelee (Roxburghshire) on the 17th, 26°F. at Braemar on the 4th; (Ireland) 75°F. at Kilkenny on the 23rd, 36°F. at Lisburn on the 3rd.

A considerable number of ground frosts occurred though many stations were quite free from them. Chopwellwood (Durham) reported 12 days of ground frost, Comondale 6 days and several Scottish stations 5 days. The lowest temperature on the ground was 24°F. at Durham on the 14th.

Precipitation.—Precipitation was normal in England S.W. and the Midland Counties, above normal in England S.E., Scotland N. and Ireland N. and S. and below normal elsewhere. The amount of precipitation in relation to the normal varied from half to over one and a half times the normal in different parts of the country. With the exception of Cornwall the area west of an irregular line drawn from the Dee to the Thames Estuary and then to the Sussex coast had precipitation in excess of normal, the remainder of England save for a few relatively small areas in the north and east, having a deficit. The west coast of Scotland and a large part of the east coast had an excess of precipitation, the central area and the greater part of the Lowlands being relatively dry. Precipitation was above the normal over the whole of Ireland with the exception of a region in the north. The largest area with precipitation exceeding 150% of the normal was south-west Ireland. The general precipitation of the British Isles expressed as a percentage of the normal was 110; the values for the several countries were:—England and Wales 104, Scotland 108, Ireland 129.

The first half of the month was the wetter, and the heavy floods which occurred in England at the end of May continued during the first few days and then gradually abated. Some rather noteworthy rainfalls occurred in the west of England over the two days May 31st to June 1st, a number exceeding 100mm. At Humber Rectory, Leominster, 110mm. were recorded between 17h. 45m. on May 31st and 9h. on June 2nd. At West Kirby (Cheshire) 91mm. fell during the 24 hrs. ending 19h. on June 1st, the previous 24 hr. record for more than 60 years being 52mm. At The Styne, Seathwaite, the total for the month was 376mm., at Carnarvon 295mm. and at Oakeley (Merionethshire) 239mm.

The great majority of stations reported thunder during the month, Norwich, Woburn and Liverpool (Bidston) having as many as 6 days. Thunderstorms were widely experienced in the midlands and southern England on the 12th, and were general in Scotland on the 11th and 21st and in Ireland on the 17th.

A few stations given in the report had one or two days of hail. Some noteworthy falls of hail occurred locally at other Scotch stations in association with thunderstorms. Thus at Inveraray (Argyll) on the 20th, an exceptionally heavy storm of hail, yielding as much as 62mm., flooded the streets and fields within a very short time whilst only three miles away "no hail fell and the farmers were at work in bright sunshine." At the same place on 24th another local fall of the same sort was experienced, with a measurement in the rain gauge of 63mm.

Sunshine.—The duration of sunshine was below normal in all Districts. The smallest mean daily deficiency occurred in England E. (0.24 hr.) and the largest in Ireland S. (2.41 hrs.). England S.E. and the Channel Isles had 42% of the possible duration while Ireland S. had only 21%. The third week of the month was the sunniest generally. A considerable number of daily durations of 13 hrs. and over were obtained, Tunbridge Wells having 15.1 hrs. on the 26th. The highest mean daily duration reported was 8.23 hrs. at Margate. At Torquay the sunshine for the month was the lowest for June since 1912 and the total of 91 hrs. at Valencia was the lowest in this month for more than 40 years.

Fog.—Many stations were entirely free from fog throughout the month. Very dense fog occurred in the English Channel on the 25th and 26th, notably from the Straits of Dover to Southampton, causing considerable delay to shipping.

Miscellaneous Phenomena.—Solar and lunar halos were unusually frequent for June. Solar halos were observed on 16 days at Oxford and halos on 2 days, the figures for Mayfield (Staffs.) being 9 and 1 respectively. Parhelia were seen at Ross-on-Wye on the 2nd and at Oxford on the 12th and 22nd. A sun-pillar was observed at Oxford on the 2nd. The solar halo seen at Cattewater on the 30th was accompanied by two parhelia and the upper arc of contact.