

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JULY, 1943.—Dry on the whole; warm from 24th-31st.

The weather of the month was dry on the whole and there was a considerable excess of sunshine except in the south of England. The last week was very warm, particularly the last two days.

During the opening days an anticyclone centred northward of the British Isles moved east and maintained fair weather over the country generally. On the 3rd a depression north of Iceland and a shallow trough of low pressure extending to the Hebrides moved east, causing slight rain in Scotland, but fair weather persisted over England. On the 4th a trough of low pressure moved south-east across the British Isles and was associated with slight, scattered showers in the north and west.

A period of rather cool, unsettled weather ensued which lasted until the 16th; on the 5th a small, shallow depression rapidly approached from the Atlantic and on the 6th moved eastward over southern Scotland; showery weather prevailed from the 6th-8th with rather widespread thunderstorms. Rain on the 9th was associated with a trough of low pressure moving east across the British Isles. Between the 10th and 12th a depression off north-west Ireland moved north-east to the Hebrides and then north; rain occurred, which was heavy locally. Strong winds with gusts of gale force occurred from the 11th-13th. On the 14th and 15th a depression moved north-east along our north-west seaboard and was associated with rain or showers in most districts; falls of more than 2 in. were registered locally in north Wales and north-west England on the 14th.

A ridge of high pressure moving north-east over Scotland between the 16th and 18th gave a temporary fair spell in most areas, but a depression south-west of Ireland moved north-east and caused local rain in the south-west on the 17th and in southern England and south Ireland on the 18th. There followed a period with high pressure to the north and low pressure to the south of the British Isles, when fair weather prevailed except in southern England. By the 22nd a ridge of high pressure extended southward over the British Isles from the anticyclone now situated over The Faeroes. During the ensuing days the ridge moved east and there was practically no rainfall over the whole country from the 22nd-24th. In Scotland dry, sunny weather was enjoyed for the most part from the 16th-24th inclusive.

Subsequently a depression off south-west Iceland moved slowly north-east; rain occurred at times in the west and north but practically none fell in the south and east. On the 29th and 30th a small anticyclone moved eastward from Northern Ireland to the North Sea and on the 31st a depression off west Ireland spread east and north, while cold fronts moved north-east over Britain. Widespread thunderstorms were experienced in Great Britain on the 31st, which were accompanied locally in England by line squalls. During the last week temperature was high, the highest readings occurring in most places on the 31st.

Pressure and Wind.—Mean pressure slightly exceeded the average except at the Scilly Isles. The deviation from the average at 7 h. ranged from +1.9 mb. at Tynemouth to -0.1 mb. at St. Mary's, Scilly. The total run of the wind was below the average in the north of the British Isles and above the average in the southern half of England. Only three of the anemometer stations recorded a mean hourly velocity of more than 38 m.p.h. Gusts of 50 m.p.h. or rather more were somewhat widespread from the 11th-13th. A heavy line squall occurred in the London area on the evening of the 31st. Among the highest speeds registered in gusts were 63 m.p.h. at Kew Observatory on the 31st, 62 m.p.h. at Bidston, 57 m.p.h. at Manchester (Ringway) and Fleetwood on the 13th and 55 m.p.h. at Stornoway on the 26th.

Temperature.—On the whole mean temperature was very

slightly below the average in Scotland and somewhat exceeded the average in England and Wales. The deviation for the districts ranged from -0.7°F. in Scotland, E. to +1.0°F. in the Midlands and England SW. The opening days were rather warm and the last week very warm, particularly the last two days. On the 31st temperatures approaching or slightly exceeding 90°F. were widely registered in England, while values of 85°F. or above were recorded locally in Scotland. The reading 91°F. at Kew Observatory on the 31st was the highest for July in the Observatory's long record, while 88°F. at North Berwick is the highest temperature which has been recorded there since observations were begun in 1922. Among cool nights were the 2nd-3rd, 7th-10th, 17th-18th and 23rd-25th.

The extremes for the month were:—(England and Wales) 93°F. at Worcester and Croydon on the 31st, 35°F. at Castleton on the 24th; (Scotland) 88°F. at Dunbar and North Berwick on the 31st, 34°F. at Braemar on the 17th and at Dalwhinnie on the 23rd; (Northern Ireland) 88°F. at Armagh on the 31st and 41°F. at Ballyhalbert on the 10th and Garvagh on the 17th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 78 over England and Wales, 81 over Scotland and 73 over Northern Ireland. More than the average occurred in the Orkney and Shetland Islands, over areas in west and north-west Scotland and a small area in the Border counties, over part of north-west England and north Wales, over most of an area in the south of England stretching from Cornwall to Sussex and at one or two isolated places elsewhere. Less than half the average was received over much of east and north-east England and the Midlands, part of east Scotland (including Aberdeenshire) and locally in Ayrshire. In Northern Ireland the percentages ranged from 52 at Ballymena to 92 at Londonderry.

Among the heaviest falls in 24 hours were:—

- 10th. 2.47 in. at Blaenau Festiniog (Merioneth) and 2.46 in. at Machynlleth (Montgomery).
- 11th. 1.87 in. at Cantref.
- 12th. 1.88 in. at Ardgour (Argyll).
- 14th. 2.60 in. at Blaenau Festiniog, 2.48 in. at Sedbergh (Yorks) and 2.25 in. at Borrowdale.
- 30th. 1.91 in. at Skallary.
- 31st. 1.74 in. at Newcastleton (Roxburgh).

Thunderstorms were reported from the 5th-8th, 12th, 15th, 17th-19th and 30th-31st; they were widespread from the 6th-8th and on the 31st.

Sunshine.—Sunshine substantially exceeded the average on the whole; it was appreciably below the average, however, in some parts of southern England. The percentages for the districts ranged from 96 in England, SW. to 133 in Northern Ireland and England, NW. and 135 in Scotland, W. Over Scotland as a whole it was the sunniest July since 1935. The mean daily sunshine ranged from less than 5 hours over a part of the Scottish Highlands to slightly more than 8 hours at Douglas, Isle of Man, and locally on the eastern shores of the Irish Sea. In Scotland and Northern Ireland sunshine was abundant during the period 16th-24th and in the eastern half of England and the Midlands the last week was very sunny.

Fog.—Fog (chiefly morning) was reported at times, mainly on the 2nd-3rd, 11th, 15th-17th and 22nd-31st. Fog was rather persistent on the south-west coasts on the 11th and rather widespread on the 23rd.

Miscellaneous Phenomena.—Solar halos were noted at Oxford on 14 days. A small whirlwind was observed near Kings Stanley, Glos., about the 15th.