

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.
ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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Cold at first, then warm; Severe thunderstorms and destructive hail.

During the opening week the winds were mainly easterly, so that very generally there was at first a deficiency of warmth, the lowest temperatures of the month commonly occurring during this period. Towards the middle of the month the wind became westerly, whereupon there was a marked increase in temperature, a change which was, however, followed in many localities by severe thunderstorms and heavy falls of rain and hail. These storms, indeed, were a notable feature of the month's weather, and over a great part of the country they precipitated the bulk of the rainfall for the month, several places on the 17th, 22nd, and 23rd having more than 25mm. Owing to these local downpours the month's rainfall was unevenly distributed. The thunderstorm of the 17th was especially notable, and was experienced over a very wide area. Severe storms also occurred on the 21st, 22nd, and 23rd, the most widespread of them being that of the 23rd. The general and severe thunderstorm in the evening of the 22nd was preceded around the *Firth of Forth* and in some other districts by an afternoon storm of considerable intensity, with heavy falls of large hail in some parts of *Fife*. The following are a few of the notes made by observers concerning some of these storms:—*Ampleforth, Yorkshire, 17th.*—The storm was audible at 14 h., but did not reach here until 16½ h., when some rain fell. It came up from the South-West and passed directly overhead about 17½ h. I counted as many as 45 flashes of lightning in one minute. For a short time the rain became quite heavy, the drops being frequently brilliantly illuminated by reflected light from the flashes. 21st.—This storm had little lightning, but produced very heavy rain. It came in three relays, the first at 13¾ h., the second at 14½ h., and the third 16 h.-18 h., the last giving 40 mm. of rain. Much damage was done to potatoes and crops, and, for the first time on record, the stream in the valley overflowed its banks. *Fulbeck, Lincs., 17th.*—A driving storm from the South-East broke over this district at 16½ h. It was accompanied by large hailstones, which did much damage to fruit crops and timber trees, the latter, subsequently, having a partial defoliated appearance. *Great Missenden, Bucks, 17th.*—A thunderstorm of unusual severity broke over this district, and in a very short time many parts were flooded. Hail fell in large pieces, riddling the growing crops and stripping trees of leaves and fruit. Live stock also suffered greatly, and much damage was done to the glasshouses in many gardens. At *Chesham* some hundreds of artizans cottages were inundated, food destroyed, furniture damaged and carried away by the flood. *Bennington, Herts.*—The lightning on the evening of the 22nd was unusually white and brilliant, making the whole landscape as visible as in daylight, revealing the different colours of fields and trees. *Berkhamstead, Herts, 17th.*—Storm commenced at 15 h., and was followed by a second at 16½ h., and by a third at 18 h. All were slow moving storms and, although a chimney was struck, they were of no great intensity here. 22nd.—This was a slow moving storm, which came from the South at 20½ h. and covered a large area. There was very brilliant and frequent lightning, at times about one flash per second. *Meltham, Yorks, 21st.*—Severe thunderstorm, 16 h. 10 m. to 16 h. 45 m., with heavy rain (8.9 mm. in 10½ minutes). 22nd.—Storm at some distance West, 21 h. to 23 h. A civilian volunteer camp struck by lightning. 23rd.—Storm passed directly over this station at 1 h., another at 2½ h., and a third at 22½ h. to 23½ h., with very heavy rain. *Benson, Oxon, 22nd.*—A severe storm passed directly overhead about 22 h. The lightning was very brilliant and continuous. In general, the lightning seemed to be at least 1½ km. high. The storm was accompanied by a squall, 24 m/s. from East-South-East, and by heavy rain, of which 7.5 mm. fell in three minutes. *Southport, Lancs, 17th.*—A very severe storm, several objects being struck by lightning. 21st.—This storm was much more severe inland, and at *Woodvale Moss* 18 mm. of rain fell in 40 minutes. 22nd.—The afternoon storm was one of the most severe ever experienced in *Southport*. It was followed by a succession of other storms lasting till breakfast time next morning. Many objects were struck by the lightning, the flashes of which were separated by only a few seconds. About 17 h., 7 mm. of rain fell in 10 minutes. The *Dines* thermograms show falls in temperature of 13a during the storm of the 17th and the first storm of the 22nd. *Princeton, Devon, 22nd.*—Glorious day and cloudless till 18 h. About 19 h. the wind suddenly sprang up from South-South-West, and a most remarkable dust-storm occurred, obscuring everything. It passed away over the moor, and the dust-cloud could be seen for miles. A thunderstorm followed. In connection with the foregoing thunderstorms, the following are some of the sizes of the hailstones reported:—*Methil, Fife.*—20 mm. in diameter. *Alnwick Castle, 22nd.*—Nearly 25 mm. in diameter. *Morpeth, 17th.*—The size of big marbles. *Tunbridge Wells, 22nd.*—16 mm. in diameter. *Aspatia, 22nd.*—10 mm. in diameter. *Wistanstow, 17th.*—Size of cherry-stones. *Woodvale Moss (Southport), 17th.*—As large as pigeon's eggs.

The following notes, supplied by observers, refer to the general character of the month's weather:—*Ardross Castle, Ross and Cromarty.*—A typical month, no extremes of heat or cold, rather dry, but on the whole very good. *Cargen, Kirkeudbright.*—Notwithstanding cold, dry weather generally prevalent during first half of month, ideal for all

agricultural operations. Work on farms never previously so far advanced, but rain would now be welcome. *Allan's Green, Northumberland.*—It has been a splendid growing month, and the thunder showers did a deal of good. But the sun has been too hot, with much East wind, and more rain is wanted, for in many places the turnip crop has been eaten off by the fly, and the corn is beginning to turn yellow for want of moisture. *Kenninghall, Norfolk.*—On the whole a fine, dry month, with northerly winds prevailing. *Weston Turville, Bucks.*—A warm month, though overcast in the first half. The terrific hailstorm of the 22nd stopped about 5 miles East of this parish, and there was no flooding as at *Chesham* and *Missenden*. *Copdock, Ipswich.*—A fine, bright month except for the very remarkable thunderstorms of the 23rd and 24th. Vegetation very luxuriant, but rapidly becoming devastated by plagues of caterpillars and flies, so that the outlook is now a miserable one for plums, apples, and pears. *Tenbury, Worcester.*—A fine, dry, hazy, and hot month. Caterpillars and blight innumerable. Fruit prospects not good, but other crops promise well, the hay having seldom looked better. *Dublin (City).*—A favourable month, with a mean temperature 1.5a above the normal, heavy, but infrequent, rainfall, light winds, and many sunny days. *Carrigoran, Co. Clare.*—During the first half of the month there was very little sun and frequent rain, but the latter half was fine and seasonable. There was a complete absence of violent and cold winds, and no frosts. *Hurdlestown, Co. Clare.*—A very favourable month. There was enough rain and plenty of warm sunshine. Crops of all kinds doing well, and grass also. *Fethard, Waterford.*—A very fine and favourable month, with an abundance of sunshine and sufficient rain, with no frosts and an absence of cold winds.

Air Pressure.—As shown by the map on p. 51, there was practically no mean pressure gradient over the whole of the British Isles. Everywhere the pressures were above the normal, the excess varying from + 5.1 mb at *Lerwick* to + 1.1 mb. at *Blacksod Point*. Strong winds were rare, the highest gust recorded by the anemometers being one of 28 m/s. at *South Farnborough* on the 23rd.

Temperature.—In all districts the temperature was above the normal, the excess ranging from 2.5a in the *Midland Counties* to 1.4a in *Scotland North, Ireland North, and the English Channel*. Of the individual readings the highest was 303a at *Reading (Univ. Coll.)* on the 22nd, and the lowest 269a at *Balmoral, Banff, Leadhills and Thorntonhall* on the 1st. Concerning temperature, observers report as follows:—*Worksop.*—The mean temperature 286.2a is the highest we have ever had in May, as also are the mean daily maximum 292.3a, and the absolute maximum 301a. *Birmingham.*—The maximum of 301a on the 22nd was the highest recorded in May during the past 31 years. *Tenbury.*—The hottest May for more than 20 years. *Totland Bay.*—The 21st was the warmest May night (289a) during 32 years. *Southport.*—It is 34 years since as high a maximum temperature as that of the 22nd (301a) was registered here in May. *Meltham.*—On the 21st and 22nd the maximum was 300a, these being the two hottest days in May for 40 years. *Richmond (Kew Observatory).*—The maximum of 300a recorded on the 21st has only once been exceeded during the past 48 years.

Precipitation.—Thunder rains had a marked effect on the month's rainfall values, and relatively to the normal the aggregates varied greatly, as may be illustrated by the fact that with 11 days of rain *England North-East* was 10 mm. above the normal, while with an equal number of days *England South-West* was 15 mm. below. The largest aggregate was 73 mm. in *Scotland West*, and the lowest, 42 mm., in *England East, South-East, and South-West*; the variations from normal ranging from + 11 mm. in *England North-West* to - 20 mm. in *Scotland North*. Falls of more than 25 mm. in the day were numerous, the heaviest being 74 mm. at *Fulbeck* on the 17th, 54 mm. at *Ampleforth* on the 21st, 41 mm. at *Rhyl* on the 22nd, and 82 mm. at *Copper Mill (Snowdonia)* and *Beddgelert*, 70 mm. at *Intake (Snowdonia)*, and 48 mm. at *Lisburn* on the 23rd.

Sunshine.—The mean daily amount of sunshine varied from 8.37 hr. in the *English Channel* to 4.48 hr. in *Scotland North*; the departures from normal ranging from + 1.03 hr. in *England South-East* to - 0.88 hr. in *Scotland North*.

Aurora was seen at *Clacton* and *Rothesay* on the 16th, at *Holyhead* on the 17th, and at *Eskdalemuir* on the 18th.

Solar Halos were frequently seen (on nine days at *Hartland Quay* and on eight days at *Eskdalemuir* and *Valencia*), with **Parhelia** on the 8th at *Hitchin*, 14th and 28th at *Aberdeen*, and 17th at *Eskdalemuir*. **Lunar Halos** were rarely reported. A **Sun Pillar** was seen at *Oxford* on the 4th and at *Valencia* on the 30th.

