

"METEOROLOGICAL MAGAZINE"

May 1943



General Weather over England and Wales  
December 1942 to April 1943.

Temperature. In each of these five months the mean temperature was above the average. The temperatures of individual months were not remarkable, apart from April 1943, which ranks as the warmest April since that of 1893. So far as can be ascertained December 1942 to April 1943 gave the highest mean temperature of any similar period since that of 1893.

Rainfall. The rainfall experienced during this period was not remarkable owing to the very wet January. In fact over England and Wales the total rainfall of the first four months of 1943 was close to the normal. February to April 1943, with 4.22 in., was not as dry as similar periods in the recent years of 1933 (2.2 in.); 1929 (2.8 in.) and 1921 (3.6 in.)

Evaporation. The evaporation from a free water surface at Camden Square (London) for the three months February to March was 3.35 in. the next largest amount in three months in the series since 1885 being 3.29 in. in February to April 1912.

While this recent period resembles that of 1893 so far as temperature is concerned the resemblance is not maintained further. The spring drought of 1893 was associated with anticyclonic conditions, while the more recent period has been unusually stormy.

J.G.

FGS

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A heat-wave in April.

Although there have been warmer April days the period from April 15-18, 1943 is one of exceptional interest. On each of the afternoons concerned the maximum temperature at Kew Observatory was at least 70°F., the 24-hourly mean over the four days reaching 59.5°F. A search into the records revealed that this mid-April "heat-wave" was the warmest brief spell experienced at Kew in April since comparable temperature records began in 1854. During these ninety years the only similar periods in April approaching the recent one were those of 1869 (11th-14th., mean 59.1°F.) 1893 (19th-22nd., mean 59.1°F) and 1916 (26th-29th., mean 58.9°F).

On the other hand the 1893 spell lasted longer, and, when considered over the seven days from the 19th to the 25th, it had a more impressive record. The maximum temperature reached 80°F. on one day (20th-record for April) and 75°F. on two more, only failing to touch 70°F. on one day (22nd). The mean for this longer period was as high as 58.4°F.

The sunshine recorded at Kew during the current warm spell averaged over ten hours per day. On the 18th nearly 90% of the total amount possible was registered.

Despite the sunshine for the month as a whole being only slightly in excess of the average, April 1943 was the warmest April on record, the mean being as high as that for an average May. The 24-hourly mean, the mean maximum and the mean minimum were 52.9°F, 60.3°F. respectively. The high minima, which were also record values, indicated that the warmth of the month was particularly evident in the mildness of the nights. In only six years have there been Aprils with monthly means over 50°F. these being 1865 (52°F), 1869 (51°F) 1874 (51°F), 1893 (51°F) 1894 (51°F) and 1914 (51°F). 45.5°F

It may be added that in contrast to the very heavy rainfall of January 1943 (120 m.m. - the second wettest January since 1857) only 11 m.m. of rain were recorded at the Observatory between February 16th and April 18th. This therefore constitutes a partial drought of 62 days.

A.J. DRUMMOND.



The Great gale on April 7th, 1943 at Wrexham.

(With some general notes on the gales of December 1942-May 1943).

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The wind rose rapidly after 00 hours, and by soon after 01h. it was already blowing with gale force. It became steadily stronger, the period of greatest wind speeds being 07-14h; \*force 9 was reached at times after 08h, and 10 later on. It is probable that the speed exceeded 60 m.p.h. The first signs of subsidence occurred about 14h; thereafter the wind moderated rapidly, with occasional strong gusts, to nearly calm at 24h.

There are several remarkable features about the gale, apart from its severity.

- (1) The steadiness of direction, WNW all the time, with no tendency whatever to veering.
- (2) The accompanying weather conditions. Precipitation was very slight. A few light showers, with rainbow, were observed between 08 and 1030h; .02" fell from 08-09h, and only a trace after that (owing to the violent wind, the gauge may not have received all that fell). After 11h. there was an almost cloudless deep blue sky, with continuous strong sunshine, and only a little fracto-cumulus. Everything was very dry - inches of soil were blown off arable fields, and in the town the dust off roads was intolerable.
- (3) The time of day. Unlike most great gales of recent years, this one's period of greatest activity was during working hours, and, in consequence, it impressed itself greatly on the public mind.
- (4) The very moderate movement of the barograph. From the first tendency to fall, at 00h, to the lowest point, at 09h, the fall was only about 13-mbs. Damage. Streets littered with tiles; trees uprooted or shattered, often badly damaging houses by falling on them; chimney stacks and pots removed; boardings blown down; rooks' nests blown out of trees; terrible damage to young foliage



and buds on fruit trees; wall collapsed on a woman at Johnstown; a good deal of personal injury, but as far as I know, only one life lost in the district (agricultural worker at Ruabon killed by falling tree).

The accompanying photograph shows the damage caused to a house in Penryn Avenue, Wrexham by the uprooting and shattering of a large elm tree. A considerable area of the road and pavement (concrete slabs) was torn up.

The gales later in the month were less severe, but the one on the afternoon of the 25th was noteworthy that the rise of wind occurred simultaneously with a backing of the direction.

I think this spring is the stormiest I recall since 1929-30, but I never remember so many in the late spring - and another feature is that they have nearly all been in the daytime, and not at night, and with clear, often cloudless, skies.

Some general notes on the gales December 1942-May 1943 are given below:-

December 5th 1942. Westerly gale for few hours after mid-day; not very severe; pressure not uncommonly low, as it was on the Atlantic.

December 29th 1942. NW. gale during daylight hours - again no noteworthy features.

January 1st 1943. Severe squalls, between 1910 and 1530; gale in gusts.

January 31st 1943. Southerly gale rising in morn, with rapid rise of temperature following very heavy rain all night.

February 5th-6th. SW'ly gale blowing late on February 5th, after 21h, highest 02h. on February 6th.

February 8th-9th. Gale from W. late on February 8th, subsiding rapidly after 01h. on February 9th; very heavy rain.



WREXHAM



DAMAGE TO A HOUSE IN GALE OF  
APRIL 7<sup>TH</sup> 1943



February 12th. SW'yly gale during morning hours; moderating after mid-day, but force seldom below 6 - very little precipitation.

February 15th. Squally, with gale during squalls; much bright sunshine.

March 30th. Wind rising during morning, from W, high after 1130, strong gale after 14h. with warm strong sunshine all through, rain in late evening, with gale - a perfect tempest.

March 31st. Continuance of gale to 03h - calm period till 08h. when wind rising again; renewed W'yly gale in evening; precipitation light and in the form of dew.

During the early part of the gale of March 30-31 tons of soil was blown off arable fields into lanes and roads, and one walked ankle deep in it. It was dry (R.H. 62%) at 09h. on 31st, and moreover an absolute drought of 25 days had only been broken on the 23rd.

April 1st. The gale of the evening of March 31st continuing for several hours after midnight.

April 5th. Very squally and sharp ~~W.~~ with frequent gale during evening. (This gale has tended to be forgotten owing to the much worse one on the 7th).

April 7th. Already reported <sup>N.E.</sup> (B. the wind here on April 6th never exceeded force 6 at any time).

April 25th. High SW'yly wind with strong sun, wind becoming gale 15h. for a period; renewed gale after sunset and rain began.

April 26th. W'yly gale all night, till mid-day - bright with strong sun.

May 9th. Strong NW'yly wind, becoming gale by 03h; morning brilliant, gale increasing after sunrise; squally in aft<sup>noon</sup> and gale again 2040-2045. Some structural damage, and terrible damage to plant life.



All the gales after and including March 30th were ruinous to plant life; (except April 5th, which was of short duration). In each case the destructive effects on foliage which I described in the Met.Mag. in November 1939 were observed - and moreover I have never been able to observe them in the spring before as the leaves have not been out enough (as they have after this summerlike spring). Each gale has brought damage to gardens worse by far than ordinary spring frosts, such as damage to crops by tiles, chimneys, branches, etc. blown down on them - onions and cabbages blown right out of the soil - young rhubarb roots killed outright by their first young leaves being blasted - myriads of fruit spurs blown off fruit-trees - and on May 9th, young potato foliage completely shattered.

At Grove Park, Wrexham, near the weather station, nearly all the rooks' nests were destroyed and blown down on April 7th. The birds went to the rubbish heap where the gardener had cleared the twigs, and rebuilt the nests and had fresh broods. Every chick, I believe, was blown out of the nests on May 9th - I cleared up the corpses myself - and the nests are now quite deserted.

S.E. ASHMORE.



Damage to climatological stations in the gale of  
April 17th 1948.

As in the gale of January 31st, a number of stations reported damage to instruments. At Worcester (Perdiswell) the wooden tower and platform on which the sunshine recorder is mounted was blown down and shattered, the frame of the recorder was slightly damaged but the sphere was unharmed. At Craibstone, near Aberdeen, the Stevenson screen was torn from the supports and three thermometers and a rain measure were smashed. At Tackly, Oxfordshire, two thermometers were broken, and at Castleton, Yorkshire, thermometers were shaken from the hooks in the screen and one broken. The observer at Castleton also reported that Dutch barns were blown down and slates and chimney pots removed.

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From Farnham (Boundstone) Mr. Hampton Brown reports:-

"The squalls during the gale on April 7th were very severe. For a time we were cut off by road-blocks either side of us by fallen trees.

The door of the thermometer screen was blown open, although normally securely fastened, and the hinges badly sprung.

The rain measure which is kept in a well-protected wire cage beneath the floor of the screen was blown out on to the grass and the rim smashed."



Auroral Notes. December 1942 to April 1943.

Aurora was observed on 10 nights during December 1942. It was seen from Nairn on the 3rd and again on the 7th, the latter display being reported also from Aberdeen and Buddon Ness. Lerwick reported an active auroral arc with ray structure in the northeast sky on the evening of the 8th; there was a suggestion of reddish edges and it was of moderate or bright intensity. A display on the 9th was widely observed and was seen in places as far south as Edinburgh and Carlisle. At Lerwick it appeared in changing form for some hours, diffuse luminous surfaces being followed by homogeneous arcs and a double arc with ray structure; bright curtains of green and red appeared from WNW to NW. up to 15 degrees altitude about 19h. Aurora was also seen from Shetland on December 11th, 12th, 13th, 14th and 31st.

In January 1943 aurora was reported on 12 nights. There were no outstanding displays but it was seen as far south as Abbotsinch and Stranraer on the 3rd and from Errol and St. Abb's Head on the 4th. Three stations in the Moray Firth area - Invergordon, Fortrose and Lossiemouth - reported aurora on the 20th.

During February the phenomenon was observed at Lerwick each evening from 1st to 6th and on the 12th, 22nd, 24th and 25th. On the 3rd auroral activity lasted from about 20h. to 23h., the form varying from diffuse luminous surfaces to rayed-arcs and curtains of moderate intensity up to 10 degrees altitude. This display was also seen from Nairn, Aberdeen, Stornoway and Benbecula. The most widely observed display in February was that of the 25th. Cloud interfered with observation in Shetland on this occasion, but the aurora was clearly seen from places in the Hebrides, Oban, Aberdeen, Edinburgh and Eskdalemuir. Mr. E. V. Newnham saw it as far south as Oxlynch, near Stonehouse, Glos. (Met. Mag. March-April 1943).



In March aurora was seen on 13 nights. On the 11th observers at Lerwick noted diffuse luminous surfaces in the northern sky at 20h.10m. At 20h.25m. draperies were superimposed on an arc with ray structure at 12 degrees. Bundles of rays were active along the whole arc, the arc changing later to a bright band of yellow and greenish tinge. It was seen from many parts of Scotland and as far south as Greenock, St. Abb's Head and Eskdalemuir. What was probably the finest auroral display of the winter occurred on March 29th. A feature of the display as seen from Lerwick was very active flaming aurora in the zenith and to 70 degrees in South. Auroral activity continued from 20h.20m. to about 03h. (30th) but observations were at times interrupted by low cloud. At Stornoway, between 20h.15m. and 23h. the display developed into a fairly quiet white arc with a vigorous system of white flaming streamers mainly short, converging to a point about 20 degrees south of the pole star. Most activity appeared from NW. but some rays appeared even from due South. After 23h. the arc became blue in colour and flaming streamers gave way to a white ray structure. By 01h. the arc had become many coloured, the rays remaining white. The display continued until dawn. A minor display on the following evening was seen by several observers in the east of Scotland as well as from Stornoway, Benbecula and Greenock. Arbroath and Greenock reported aurora on the 31st.

Aurora was observed on only 8 nights in April, the fewest in any April since 1935. The most southerly station reporting the phenomenon was Leuchars where it was seen on the 3rd and 6th.

H.E.C.



OBITUARY.

Sir Thomas Hudson Middleton, F.R.S. died on May 14th 1943 in his 80th year. Sir Thomas was a member of the Meteorological Committee, nominated by the Board of Agriculture in 1906; he was also a member of the Agricultural Meteorological Committee and from 1938 was the chairman of the Agricultural Research Committee. Among his many services to Agriculture was the part he played in the food production campaign of 1917-1918, and the advice and guidance he gave before and after the outbreak of the present war in the method of increasing the output of home grown food.

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William Grant. Mr.W. Grant, who died on 29th October 1942, regularly sent in returns of rainfall from Arisaig, Inverness-shire for a period of 45 years. Readings were started by his father, Mr.A. Grant, in 1885 and are complete, therefore, for 58 years. They are still being carried on, the new observer being Mr.A.G. Grant, son of William and grandson of Mr.A. Grant.

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Alexander Nimmo. Mr.Nimmo died at Falkirk on 28th March in his 86th year. He had achieved the distinction of maintaining weather records over the long period of 50 years. His rainfall records at Westbank, Falkirk have been included in the annual volumes of "British Rainfall" since 1908. Mr.Nimmo was a principal in one of the oldest established legal businesses in Falkirk and for several years served as Honorary Sheriff-Substitute in that town. He was a keen golfer, being a member of Falkirk Tryst Golf Club and a former champion.

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James Smith. Mr. Smith, whose death at the age of 80 occurred on 2nd January, had been associated with the Meteorological Office for 35 years. In July 1907, when schoolmaster at Castlebay on the Isle of Barra in the Outer Hebrides, he undertook charge of the newly established Telegraphic Reporting Station there. On his retirement from teaching in 1927 this station came to an end but Mr. Smith then voluntarily undertook to maintain a climatological station at his new home at Skallary, two miles east of Castlebay. These records were continued to within a month of his death though in recent years failing health compelled him to reduce the observations and transcription to some extent. The meteorological records have now been resumed by his son, Mr. A.F. Smith.

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Lt. Col. John Lawrence Wood, O.B.E., R.A.M.C. With the death of Colonel Wood on 4th January 1943, the climatological station which he equipped at Roslin, Midlothian early in 1941 came to an end. He usually recorded the observations himself and was a frequent correspondent on weather topics. Col. Wood was greatly interested in horticulture and quite naturally proud of his beautiful garden at Roslin. His meteorological instruments have been acquired by a fellow medico, Dr. J.T. Baldwin, who set them up in Penicuik, 3 miles southwest of Roslin, where regular observations were commenced in April.

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