

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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NOVEMBER, 1924: WARM. DRY IN THE NORTH.

General.—During the first two days unsettled weather prevailed, associated with the passage of a depression (Track B) over southern Scotland. There were strong winds and gales along the south-west coasts and heavy rain in the south: 46mm. being recorded at Tynywaun (Glamorgan), 41mm. at Brushford (Somerset), and 40mm. at Holne (Devon). A gust of 60 m.p.h. was recorded at St. Ann's Head on the 2nd at 13h. Floods occurred, e.g., in the neighbourhood of Exeter and in the Thames Valley. At Bude the floods of the 1st were the worst for 20 years. Snow fell over considerable areas to the north of the Grampians on the 2nd and 3rd. In the rear of the depression an anticyclone passed slowly eastwards across the British Isles, causing quiet, fair conditions with much local mist and fog. Northerly winds prevailed at first and were associated with slight showers of hail or snow in a few places and a drop in temperature, which spread gradually southwards on the 3rd and 4th. Severe frost occurred inland on the mornings of the 4th, 5th and 6th, a "grass minimum" temperature of 10°F. being recorded at West Linton (Peebles) on the 6th, and of 11°F. at Rhayader (Radnor) on the 5th. From the 9th to the 11th the winds were southerly and the weather mild, with rain in the west. On the 12th a secondary depression (Track D) developed and crossed southern England, causing heavy rain locally: 30mm. fell at Shoeburyness. It is noteworthy that the approach of this depression was accompanied by a general increase of pressure, and that barometer readings near its centre were about 1025mb. Further depressions over the northern Atlantic caused a continuance of the unsettled weather in the extreme west and north until the end of the month, but under the influence of an anticyclone, which spread south-westwards from southern Scandinavia, quiet, fair weather prevailed in the south for nearly a week. With the clearer skies and a steady flow of air from the Continent there was a pronounced fall of temperature. Screen minimum readings were as low as 20°F. or 21°F. in some parts on the 17th and 18th, and day temperatures also did not reach 40°F. at several stations on those two days. Much local morning fog and mid-day sunshine were associated with the frost. During the last ten days depressions from the Atlantic spread again over the whole of the kingdom, causing strong winds and frequent rain, which was heavy locally, e.g., 46mm. at Arrochar (Argyllshire) on the 21st, 85mm. at Dungeon Ghyll and 50mm. at Sedbergh (Yorks.) on the 22nd, 49mm. at Aasleagh (Mayo) on the 24th, and 48mm. at Watchet (Devon) on the 26th. The chief gales occurred on the night of the 26th-27th (see below). Snow was seen on distant hills at Newcastle (Wicklow) on the 28th.

The general character of the month is illustrated by the following remarks taken from observers' notes:—Belper (Quarry Bank),—On the whole a very pleasant month. Berwick-on-Tweed,—Warm, calm and gloomy. Small rainfall but high humidity. Copdock (Suffolk),—Again a month with excessive rainfall and sunshine considerably below normal. Newport (I. of W.),—A dull and rather mild month. Raunds,—Generally dull, temperature above normal, rainfall below normal. Skegness,—An average November, winds mainly from the south. Southport,—A notably south-easterly month of the high pressure variety. Calm, dry and rather mild. Normally sunny. Teignmouth,—Dull, alternating with thick fog. Occasional thunder, lightning and hail at end of month. Torquay,—A mild month with deficient sunshine, but little fog. Walton-on-Naze,—Temperature mainly above normal. Sunshine above and rainfall below normal. Most of the rain fell at night. Arrochar (Argyllshire),—The first half of the month pleasant and dry, very heavy rains subsequently. Forglenn Castle (Banffshire),—Dull, foggy and mild throughout. Dublin,—A very open month, in marked contrast to November, 1923.

Pressure and Winds.—Mean pressure was everywhere above normal, the deviation of monthly means of pressure at fixed hours varying from +5.9mb. at Lerwick to +0.8mb. at Cahirciveen. The isobars of mean pressure show an area of high pressure over south-east England. Over Scotland and Ireland the trend of the isobars was from S.W. to N.E., the prevailing winds being south-westerly to westerly.

The tracks of one primary and two secondary depressions crossed the British Isles. The depression (Track D) made a loop over southern England and north-east France on the 12th to 13th, the highest recorded pressure was 1041mb. at Cahirciveen on the 19th and the lowest 978mb. at Aberdeen and Pendennis on the 27th. The reading of 1037.4mb. at Edinburgh on the morning of the 7th was the highest during the last two years.

The mean speed of the wind exceeded 38 m.p.h. for a period of not less than an hour on 3 days at Kingstown and on 2 days at a few other anemometer stations. A remarkable gale occurred in the south

of England on the night of the 26th and morning of the 27th. This gale was associated with the depression (Track K) which was situated over the Bay of Biscay at midday on the 26th and afterwards passed almost due north over Brittany and the western coast of Great Britain on the 27th and 28th. Gusts of 72 m.p.h. were recorded at Petersfield and South Farnborough on the early morning of the 27th. Calshot and Shoeburyness recorded gusts of 68 m.p.h., Gorleston one of 65 m.p.h. and Kew one of 57 m.p.h. Pressure changes were especially rapid along the coasts of Dorset and Hampshire, the barogram at Portland Bill showing a fall and rise of 9mb. within the 5 hours ending 5h. on the 27th. Considerable damage was done to shipping, to coastal towns and inland. In London the gale was the most severe of recent years. At Bournemouth it was said to be the worst gale since 1881.

Temperature.—The mean temperature of Districts 1-10 was 45°F. That of each District was above normal, the largest excess, 3.5°F., being experienced in Scotland N. (mean temperature 45°F.), and the smallest, 0.5°F., in England S.W. (mean temperature 46°F.) and the Channel Isles (mean temperature 50°F.). The last week of the month was the warmest and the first the coolest generally.

The extreme screen temperatures for the month were:—(England and Wales) 61°F. at several stations on the 1st, 19°F. at Mursley on the 18th; (Scotland) 59°F. at Onich on the 25th, 18°F. at Wolfelee on the 16th; (Ireland) 59°F. at several stations on the 1st and 23rd, 21°F. at Clongowes Wood on the 13th.

Ground frosts occurred generally throughout the month and a number of stations had 10 or more occasions. At Burnley and Chopwellwood 17 days of ground frost were recorded. The lowest readings were on the 5th and 6th (see General Section).

Precipitation.—Precipitation was below normal in all Districts except Ireland S., where there was a slight excess. Several English areas had precipitation in excess of normal, mainly in the south. A few small regions on the north-east and west coasts had less than 50 per cent. of the normal. Precipitation in Scotland was everywhere deficient save for a very small part of the Argyllshire coast. A small region in the extreme north and in the neighbourhood of the Moray Firth had less than 50 per cent. of the normal. There was a deficiency in the Irish coastal districts, but the bulk of Ireland had normal rainfall over a belt running from Leitrim to Waterford precipitation exceeded 125 per cent. The general precipitation of the British Isles expressed as a percentage of the normal was 85; the values for the several countries were:—England and Wales 86, Scotland 68, Ireland 103.

The week 2nd to 8th was the driest generally and the last week the wettest.

A few stations, mainly in Scotland, reported snow. Dungeness however, had 3 days.

A few stations had one or two days of thunder.

Sunshine.—The duration of sunshine was above normal in England N.W., Scotland N. and W. and the Channel Isles, but below normal elsewhere. The largest mean daily excess occurred in England N.W. (0.44 hr.) and the largest deficiency in England E. (0.74 hr.). The Channel Isles had 29 per cent. of the possible duration, while England E. had only 16 per cent. The first week was the sunniest and a number of stations had a record exceeding 8 hrs. on the 4th. At Aberdeen it was the dullest November on record, and at Copdock (Suffolk) it was the dullest, except those of 1906 and 1907, since observations began.

Fog.—A considerable amount of fog occurred throughout the month. Most stations reported one or more days, but Scotland N. and E. were very free from fog. More than 10 days of fog were experienced at a number of stations, and Aberystwyth had 21 days, Wallasey 17 and Lerwick 14. At Renfrew fog persisted all day on the 6th, 7th, 10th, 13th and 15th. There were no serious fogs in London.

Miscellaneous Phenomena.—A few solar and lunar halos were reported. Aurora was somewhat widely observed in the north and north-east of Scotland on the 24th and also at Armagh. The Zodiacal Band and Counter-glow were seen at Wadhurst (Sussex) on the 17th and the Zodiacal Light at Oxford on the 27th and 30th. Several observers at Seskin saw a fine example of the Brocken spectre with the coloured external ring (Ulloa's Ring) on the 17th. The observations were made at 11h. 30m. at an altitude of 300 ft. at the upper limit of dense valley fog, and the phenomena was seen again two hours later.