

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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JANUARY, 1927: RATHER MILD; WET AND STORMY.

General.—January on the whole was rather mild, wet except in some eastern districts, and windy, extremely stormy weather prevailing about the middle of the month and between the 26th and 29th.

On the first day of the month, pressure was low over Iceland and high to the south of the British Isles and in all districts westerly winds prevailed. Heavy rain, associated with the passage of secondaries to the Icelandic depression, fell in some northern districts of Scotland on the 1st and 2nd; 39mm. fell at Lerwick on the 1st and 60mm. at Kinlochquoich on the 2nd. In southern districts mainly fair weather with some local light rain prevailed during the first two days. On the 3rd the depression north of Scotland extended its influence over the whole of the British Isles and in its rear the winds veered to the north on the 4th; there was a temporary drop in temperature and snow or sleet occurred in many places.

The mild westerly conditions were renewed on the 5th and from the 6th to the 12th day temperatures were in the neighbourhood of 50°F., the highest temperatures of the month in most districts occurring during the period 8th to the 10th. Rain fell frequently but amounts were generally moderate with the exception of some heavy local falls in Scotland.

On the 12th a depression approached the north-western districts of the British Isles and deepened; widespread gales occurred on the 12th and 13th, gusts of over 70 mi/hr. occurring in exposed places in western districts. After the 13th, the temperature dropped considerably, and on the 15th frost persisted throughout the day at Aberdeen. There was more than a week of cold weather with frequent sleet or snow and much fog at times. Maximum temperatures did not exceed 40°F. in the north, and the lowest night temperatures of the month, 12°F. in the the screen and 8°F. on the ground, occurred on the 20th at West Linton. On the 22nd and 23rd milder weather prevailed temporarily in some parts. The passage eastwards of a secondary trough of low pressure caused a heavy fall of snow over a wide area on the 20th and in northern districts road services were greatly disorganized.

Very stormy weather prevailed during the last week. On the 24th and 25th a depression centered near Iceland caused gales and heavy rain on our western coasts. During the next few days the passage of vigorous secondaries maintained unsettled stormy weather. On the 28th a very deep depression west of Ireland caused widespread gales which in some districts were of exceptional violence (see remarks under Pressure and Winds). Associated with the passage of a secondary to this depression, heavy rain fell in many parts of England and Wales and Ireland during the night of the 28th to 29th and in some places thunderstorms occurred, e.g. 81mm. (3.19 in.) fell at Holne, Devon and 63mm. (2.47 in.) at Tynywaum, Gloucester. After this the weather cleared temporarily, and fine sunny conditions were experienced on the 31st.

The general character of the month is illustrated by the following remarks taken from observers' notes:—Southport.—A generally mild, wet and stormy westerly month with little sunshine but curiously fine evenings. Virtually double the normal duration of due westerly winds. Huddersfield (Oakes).—A mild month. Berkhamsted.—The month was mild and rather wet, the seventh successive mild January. Cloudiness much below the average. Copdock.—Except for rainfall and sunshine, both of which are below the normal, the other figures for the month are extraordinarily close to my 25-year average. Falmouth.—The wettest January since 1919. Cork.—First part of month fairly dry, second part wet with visitations of hail, snow and gales, accompanied by thunderstorms and floods.

Pressure and Winds.—The mean pressure was everywhere below the normal, the greatest deficiency at a fixed hour amounting to 13.4 mb. at Aberdeen. The mean isobars trended roughly from south-west to north-west over Scotland and from west to east over England and Wales and Ireland. A notable feature of the wind circulation during the month was the marked prevalence of westerly winds. The highest recorded pressure at mean sea level was 1040 mb. at St. Mary's, Scilly, on the 9th and the lowest 952 mb. at Stornoway on the 28th.

The month was stormy, gales occurring locally on the 2nd, 4th and 10th, widely on the 12th, 13th and from the 26th to the 29th. Widespread gales on the 12th and 13th were associated with the passage of the depression (Track J) across Scotland; gusts exceeding 70 mi/hr. were recorded at Fleetwood, Southport and Holyhead on the night of the 12th and at Quilty (Clare) and St. Mary's (Scilly) on the 13th.

The passage of depressions and secondaries across the British Isles between the 25th and 29th caused very stormy weather, notably on the 28th when a storm of exceptional violence was experienced in western and northern districts. At Dunfanaghy (north-west Ireland) the wind speed on the 28th exceeded 80 mi/hr. for a brief period, averaged 74 miles for a complete hour and in a gust touched 109 mi/hr. At Tiree (west coast of Scotland) the wind reached an average speed

for an hour of 66 miles and in a gust touched 108 miles. Gusts of 104 mi/hr. at Paisley, 102 mi/hr. at Renfrew and 92 mi/hr. at Lerwick were recorded on the 28th. Considerable structural damage, involving loss of human life in some cases, was caused by the storm. On the 29th a gust of 92 mi/hr. was recorded at Pendennis (Cornwall).

Temperature.—January on the whole was a mild month with the exception of low temperatures on the 4th and 5th and between the 13th and 23rd. The mean temperature of Districts 1–10 was 40.9°F. and was 1.6°F. above the normal. The mean temperature was above the normal in all Districts, the largest excess 2.3°F. occurring in England E. (mean temperature 40.2°F.) and the smallest excess, 0.8°F., in Scotland N. and Ireland S. (mean temperatures 39.0°F. and 42.9°F. respectively). The warmest period extended generally from the 8th to the 10th; and the coldest nights occurred about the 21st. Ground frost occurred frequently during the month.

The extreme temperatures for the month were:—(England and Wales) 59°F. at Sealand on the 9th, 15°F. at Larkhill on the 20th; (Scotland) 58°F. at Balmoral on the 9th, 10°F. at Braemar on the 20th; (Ireland) 60°F. at Cork on the 9th, 21°F. at Dublin (Phoenix Park) on the 20th.

Precipitation.—Except in coastal districts in the east of England and Scotland rainfall totals were everywhere above the normal, the excess in most cases being well marked. The general precipitation of the British Isles expressed as a percentage of the normal 1881–1915 was 126; the values for the constituent countries were:—England and Wales 122, Scotland 130, Ireland 132.

In Scotland precipitation was slightly below the normal in some eastern districts, but over the greater part of the country there was a decided excess. In the west and south rain fell on every day from 1st to 13th with some heavy falls on the 2nd, 6th, 7th and 12th, while in eastern districts amounts were comparatively moderate. During the next few days, precipitation was unimportant, except on the 17th, but on the 20th a wet period lasting until the end of the month set in with rain extending to all districts on most days from the 24th onwards. At Baltasound (Shetland) rain of measurable amount fell on every day of the month. Amongst the heaviest daily falls were 60mm. (2.35 in.) at Kinlochquoich on the 2nd, 57mm. (2.24 in.) at Gruline in Mull on the 12th and 57mm. (2.23 in.) at Achnacarry on the 27th.

In England and Wales the largest excesses occurred in Devon and Cornwall; at Polapit Tamar (near Launceston) the total for the month represented more than twice the normal.

In Ireland the largest excesses occurred in the north-western and western districts, more than twice the normal rainfall for January being recorded at Creggan (Londonderry), Markree and Foynes.

Snow fell rather widely on the 4th and round about the 20th. "Snow lying" was reported on several days in Scotland; there were as many as 18 days of "snow lying" at Leadhills. In London the depth of snow on the 21st was 5½ inches.

Thunderstorms occurred in general on only one or two days; the highest number reported was five at Oban and Newtownforbes. Hail occurred on several occasions.

Sunshine.—The mean daily duration of sunshine was about or below normal in most districts. There was an excess in Scotland E., England E. and S.E. and Ireland S. Scotland E. had the greatest excess relative to the normal for the District, 0.35 hr. (mean daily duration 1.72 hr.) and England S.W. the greatest deficiency, 0.17 hr. (mean daily duration 1.50 hr.). The week ending January 22nd was the sunniest week generally.

Fog.—Fog occurred locally on various dates but was most widely prevalent from about the 16th to the 24th. Thick fog occurred in some London districts on the 17th, 20th and 23rd and in the Glasgow area on the 18th and 20th.

Miscellaneous Phenomena.—Halos of 22° were observed on several days during the month. Parhelia were seen at Oxford on the 16th and 21st and at Huddersfield (Oakes) on the 17th. The Zodiacal Light was observed at Oxford on the 30th and at Tenbury on the 31st. Aurora was observed at Gordon Castle on the 1st and 4th, at Baltasound (Shetland) on the 4th, 7th, 25th, 27th, 29th and 30th, at Aberdeen on the 4th and 7th, at West Witton on the 7th and at some points in Scotland on the 5th, 6th and 8th. Lerwick Observatory reported auroral glows on 4th, 5th, 6th and 8th and an active display on the 7th.

A severe earth tremor was experienced in the eastern districts of Scotland as far north as Baltasound about 5.20 a.m. on the 24th and another in western districts on the morning of the 27th.