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SNOW SURVEY OF GREAT BRITAIN

Season 1954–55

As in previous years the basic material for this report has been derived from the returns made by voluntary observers who have provided, month by month, daily records of snowfall and of any snow-cover within their range of vision. These records, from a network of stations distributed over the country, are augmented by data extracted from the regular monthly returns from official weather stations and also from voluntary climatological stations reporting to the Meteorological Office. Without the co-operation of all those responsible for these voluntary observations it would have been impossible to have prepared this report in anything like its present detail.

Measurements of depth of snow in the following pages refer, in general, to 0900 G.M.T. or thereabouts.

Summary of 1954–55 season.—The season may be classed as one of more than average snowfall. Data for ten representative stations* in Great Britain at altitudes between 400 and 1,200 ft., which have been used for seasonal comparison since the survey of 1946–47, give a mean of 51 days with snow lying at the hour of morning observation. This compares with an average of 36 such days over the past eight seasons; the great variability of snowfall in the British Isles is shown by the fact that during these seasons the mean number of days ranged from 13 in 1948–49 and 1949–50, to 66 in the severe winter 1946–47. The snowfall during the season under review may be compared generally with that of 1946–47, although the worst conditions were largely confined to northern districts, whereas during the 1946–47 season they were more evenly distributed over the country. In February 1955 undrifted snow accumulated to a depth of over 24 in. over a wide area in Scotland, and Drummuir, Banffshire, reported a depth of 36 in. on the 21st, whereas in the Pennines at Forest-in-Teesdale during February 1947 the depth of level snow increased from 44 in. on the 6th to 53 in. on the 18th. The number of days on which snow fell was also less this season than in 1946–47.

Notes on the months.—*September 1954.*—Temperature during the month was below normal for the time of the year, and sleet showers fell locally in Scotland on the 16th–18th and 24th–29th. Snow lay on the summit of Ben Nevis throughout the month, and on some other high peaks in Scotland, notably the Cairngorms on the 17th–20th and 26th–30th, and on some of the higher peaks in Cumberland and Westmorland on the 27th–28th.

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* These stations are:—Dalwhinnie, Braemar, West Linton, Eskdalemuir, Huddersfield (Oakes), Buxton, Whipsnade, Little Rissington, Princetown and Rhayader.

October 1954 was a very mild month, particularly in England and Wales where the average temperature was 3°F. above the seasonal normal. Snow or sleet showers were reported locally on the 17th, 21st–25th, 27th, and 30th. Snow lay on some of the Scottish hills, mainly at 2,500 ft. and above, from the 10th onward, and on the higher hills in Cumberland and Westmorland, including Cross Fell on the 24th–29th.

November 1954.—Mean temperature during the month was about the seasonal normal. Snow or sleet fell locally on most days, but there were no really heavy falls, though snow lay several inches deep on high ground in Scotland on the 24th; for example, 2½ in. at Glenlivet in the Cairngorms and at Glengavel in the northern foothills of the Southern Uplands, Lanarkshire, 4 in. at Dalwhinnie in the Grampians and 5 in. at Leadhills in the Southern Uplands. Snow also lay on the higher ground of north-west England on the 5th–9th, 12th and 23rd–27th including Moorland Cottage and Cross Fell in the Pennines and on Helvellyn and Scafell in the Lake District.

December 1954 was exceptionally mild in England and Wales, where the mean temperature for the month was nearly 4°F. above normal in spite of a rather cold period from the 5th to the 12th and again from the 23rd to the 24th. Snow fell fairly frequently north-west of a line, Bristol Channel to the Wash, particularly in parts of Scotland where heavy falls blocked roads for several days. At 2,400 ft. near Leadhills, Lanarkshire, there were drifts 12 ft. deep. Snow was widespread on the 8th, 12th, 23rd and 24th; it lay to a depth of 22 in. at Braemar and 18 in. at Balmoral, both in Aberdeenshire, on the 8th, and 14 in. at Achnagoichan and Glenmore Lodge, both in Invernessshire, on the 9th. Further south at Moor House, Westmorland, there was 6 in. of level snow with drifts 3 ft. deep on the 9th–12th; 4 in. at Buxton, Derbyshire, on the 8th–10th and 5 in. at Cae Llwyd, Denbighshire, on the 8th.

January 1955, in marked contrast with December, was very cold except for the last week. In Scotland local falls of snow or sleet occurred throughout the month, and there was snow in most areas from the 10th to the 18th, the main falls occurring from the 11th to the 14th and from the 16th to the 18th. At Glenrossal, Sutherland, level snow lay to a depth of more than 12 in. from the 14th to the 21st and was 18–20 in. deep on the 18th; on the same day it was also 18 in. deep at Achnagoichan near the Cairngorms and at Adit 3 near Loch Lochy on the Caledonian Canal. Gales piled the snow into deep drifts—30-ft. drifts were reported at some places—and many farms and villages, thus isolated, were supplied with food by aircraft. In England and Wales snow or sleet fell fairly frequently up to the 19th, and was widespread on the 4th, 5th, 15th and 18th. It was lying to a depth of 6–9 in. on the 17th in Northumberland, Durham, the North and West Ridings of Yorkshire, south Lancashire and north Wales.

February 1955 was an exceedingly cold month, the coldest in the British Isles since February 1947 with average temperatures 5–6°F. below normal. In Scotland, snow or sleet fell daily with moderate or heavy falls on most days from the 9th to the 22nd. As in January, the north and north-east were severely affected with undrifted snow in places more than 24 in. deep; Drummuir, Banffshire, reported a level depth of snow of 36 in. on the 21st. In England the north-east was badly affected; in parts of Northumberland level snow lay over a foot deep from the 22nd till the end of the month, while at Buxton,

Derbyshire, undrifted snow was 20 in. deep from the 25th to the 28th. Further details of the snowfall of January and February are given in an earlier article[1].

March 1955.—This was another cold month with mean temperature everywhere below the average. In Scotland, snow and sleet fell chiefly during the first week and from the 16th to the 24th though there were local snow showers until the 29th; at Reay Forest, Sutherland, snow lay 16 in. deep on the 20th and 21st. In England and Wales snow fell to a depth of 6 in. in parts of East Anglia and Kent on the 6th, and to a similar depth in places in northern England on the 20th; there were also scattered snow showers, particularly in eastern England, throughout the major part of the month.

April 1955 was dry, sunny and mild with very little snow. Snow fell locally in Scotland, however, on the 20th and 24th, and in parts of Bedfordshire and Buckinghamshire on the 17th–19th.

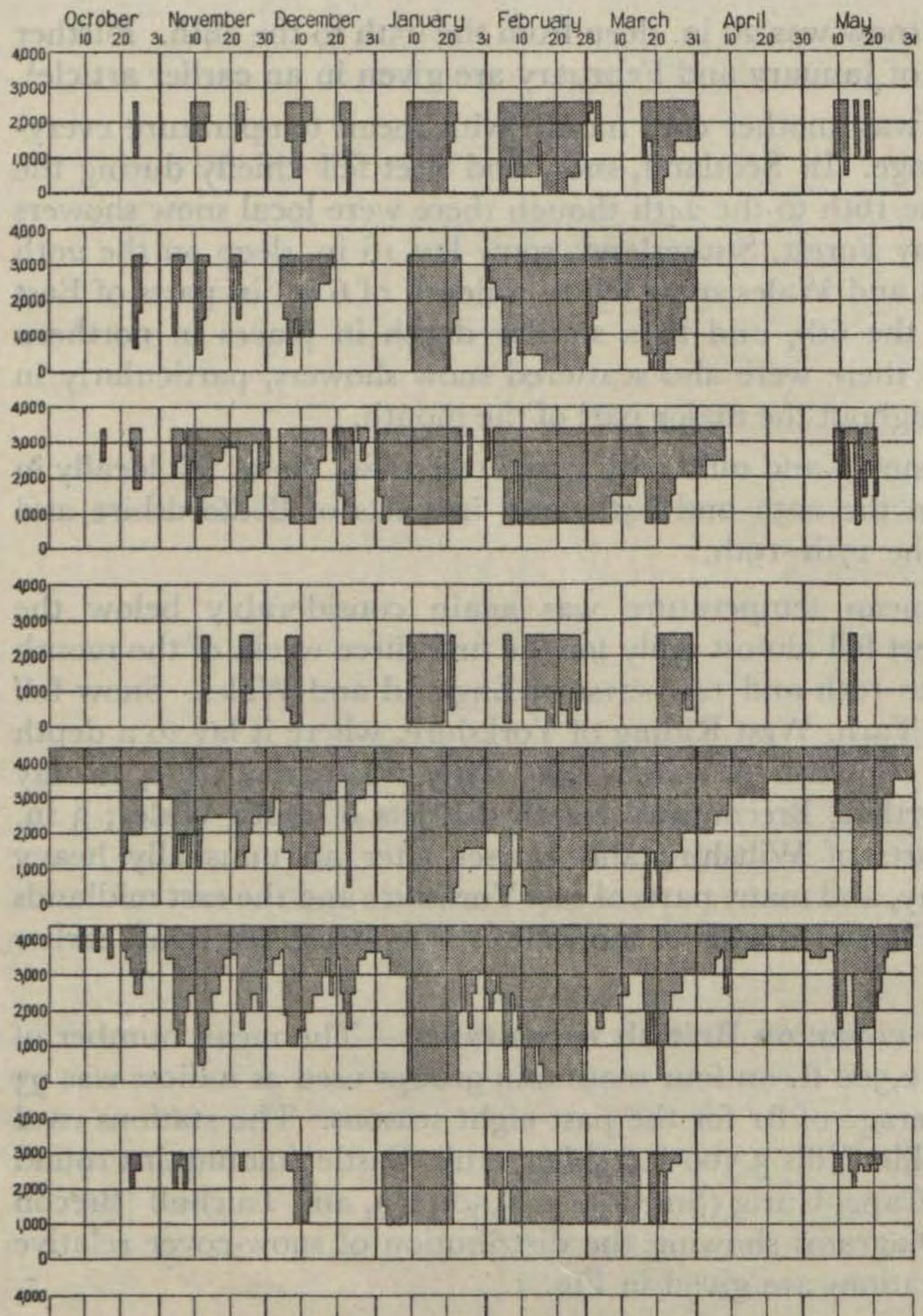
May 1955.—The mean temperature was again considerably below the normal. Snow and sleet fell almost daily for the first three weeks of the month in Scotland and on the 10th and 14th–21st in England and Wales. Snow fell on 8 days at Malham Tarn, West Riding of Yorkshire, where it lay to a depth of 4 in. on the 17th. On this day snow was fairly widespread; 3–4 in. lay extensively in the Merthyr, Brecon and Neath districts of south Wales; 3 in. were measured in parts of Wiltshire and Dorset after an unusually heavy snowstorm for mid May, and many parts of east Yorkshire and the east midlands had a cover of 1 in. Further details of snowfall in May are given in an earlier article[2].

Duration of snow-cover on British mountains.—The mean number of days of snow-cover at 2,500 ft. on four mountain groups used as indices was 93 compared with an average of 81 for the past eight seasons. The stations used were Glenbrittle (Cuillin Hills 3,300 ft.), Meggernie Castle (mountains round Glen Lyon 3,400 ft.), Capel Curig (Snowdonia 3,500 ft.), and Tairbull (Brecon Beacons 2,800 ft.). Diagrams showing the distribution of snow-cover relative to height for eleven stations are given in Fig. 1.

Harris, in the Outer Hebrides, reported snow-cover on 1 day in October and 8 days in November; in December it was covered from the 7th to the 13th and from the 22nd to the 24th. Snow-cover was also observed during January 9–23 and from February 4 to the end of the month, most of which time the snow-line was down to sea level. There was snow-cover for 3 days at the beginning of March and during the whole of the second half of the month, extending to April 1, and for 6 days during the middle of May.

The Cuillins of Skye were occasionally covered during the last week of October and the first 3 weeks of November. The summits were also covered during December 4–19, January 10–24 and during the whole of February and March, most of which time the snow extended down to 2,000 ft. The snow-line came down to sea level during the middle of January, the last half of February and for 3 days towards the end of March.

The peaks around Glen Lyon had snow-cover for a few days during October, most of November and December and continuously from January 1 to March 8, except for 5 days at the end of January. There was also snow-cover during mid May. Snow came down to station level (760 ft.) frequently from December to March, and on November 12 and May 14.



CLISHA[illegible]nd RONEVAL
Station: Leverburgh, Harris (Height: 25 ft.)

CUILLIN HILLS
Station:Glenbrittle, Skye (Height: 30 ft.)

Mountains round GLEN LYON
Station: Meggernie Castle, Perthshire (Height: 760 ft.)

PAPS OF JURA
Station: Colonsay, Argyll (Height: 150 ft.)

BEN NEVIS
Station: Corpach, Inverness-shire (Height: 30 ft.)

BEN NEVIS
Station: Banavie, Inverness-shire) (Height: 50 ft.)

CROSS FELL
Station: Alston, Cumberland (Height: 1,070 ft.)

HELVELLYN
Station: Patterdale, Westmorland (Height: 520 ft.)

SNOWDONIA
Station: Capel Curig. Caernarvonshire (Height: 700 ft.)

SOUTH SNOWDONIA
Station: Llanfrothen, Merionethshire (Height: 475 ft.)

BRECON BEACONS
Station: Tairbull, Brecknockshire (Height: 660 ft.)

FIG. I—DISTRIBUTION OF SNOW-COVER IN RELATION TO HEIGHT

The Caps of Jura were covered for 5 days in November, three days at the beginning of December, January 10–19, January 22, February 6–7, February 12–27, March 22–30 and May 17–18, most of which time the snow-line was down to station level (150 ft.) except for a week in mid February.

The summit of Ben Nevis was observed to be covered continuously from the beginning of September to the end of June and snow was seen in gullies down to 3,200 ft. even as late as August 8. Snow-cover came down to 1,000 ft. during each month from September to May, except April, and down to sea level January 10–22, most of February, 2 days in March and 2 days in April.

Cross Fell was snow-capped for 3 days in October, 5 days in November, and 7 consecutive days in December, during which time the snow-line came down to station level (1,070 ft.) on December 9, 10 and 12. The summit was covered on January 2–7 and 9–21, the whole of February, March 1–4, 6–14, and 18–26; during most of this period snow extended down to station level. Snow was also observed on 12 days during mid May.

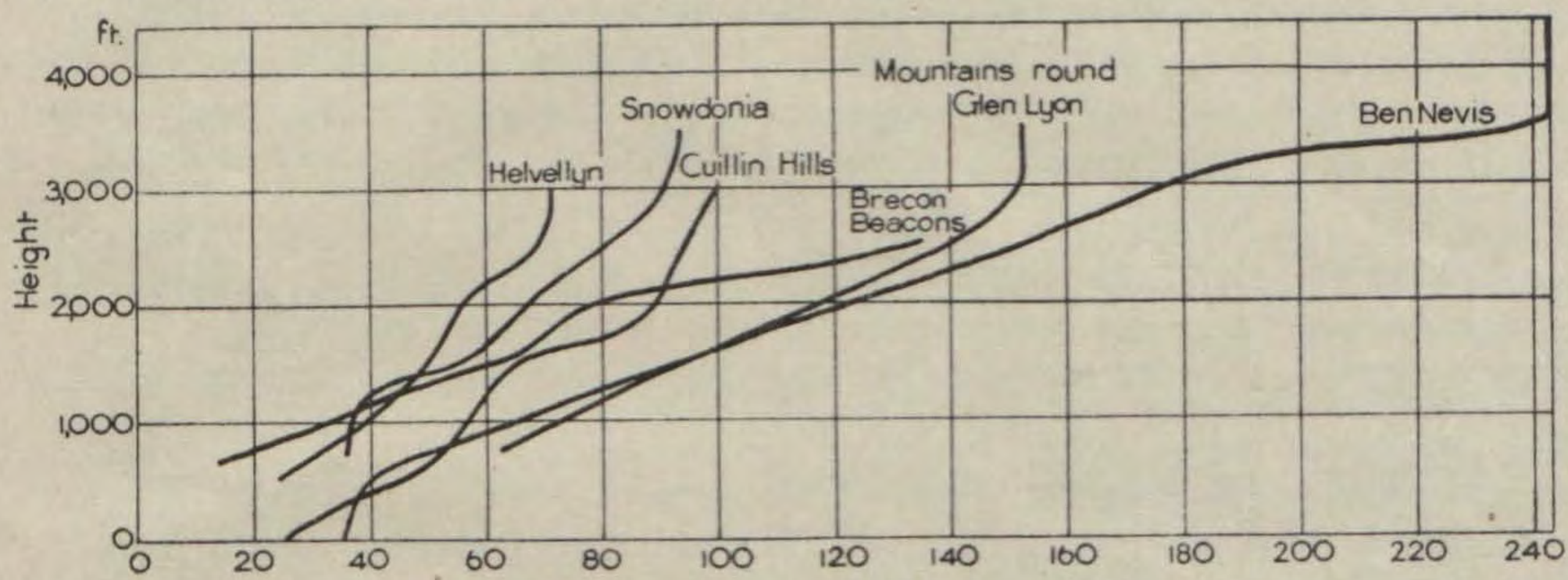


FIG. 2—SEASONAL DURATION OF SNOW-COVER

Helvellyn was snow-covered for 1 day in October, 4 days in November and 5 consecutive days in December when the snow came down to 1,000 ft. on December 11 and 12. Snow-cover was also observed on January 3–9, 11–21, February 3–12, February 14–March 10 and March 21–24; snow was down to station level (520 ft.) on January 12–21, February 7, 10, February 14–March 6 and March 21. Snow was also observed on 6 days during mid May.

The peaks near Capel Curig had snow-cover above 3,000 ft. on 3 days during the last week of October and were occasionally covered above 2,000 ft. in November. Snow-cover was observed on December 6–16, about half of January and from February 2 to March 26 except for February 3 and February 8–10, most of which time snow extended down to 2,000 ft. Snow was also observed on 8 consecutive days during mid May.

In south Snowdonia there was snow-cover at 2,500 ft. on November 23–25, December 6–11, 24 and 25, January 3–20 (except 10), February 5 and 6, from February 10 to March 9 and March 19, 21 and 22; most of this time snow was down to station level at 475 ft.

The Brecon Beacons were under continuous cover above 2,500 ft. from December 7 to April 10 except for one day, February 1, and during May 14–25. Snow came down to station level (660 ft.) on December 7, January 4 and February 13–15, 18–21, and 24–28.

Curves showing total seasonal duration for six stations are drawn in Fig. 2; 200 days' snow-cover was exceeded on Ben Nevis above 3,500 ft., and [illegible] days' cover was exceeded on the mountains about Glen Lyon above 1,600 ft., on the Brecon Beacons above 2,500 ft. and at the summit of the Cuillin Hills.

REFERENCES

1. BOOTH, R. E.; The snow of January and February 1955. *Met. Mag., London*, **84**, 1955, p. 129.
2. BOOTH, R. E.; An exceptionally cold day in May. *Met. Mag., London*, **84**, 1955, p. 293.