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## SNOW SURVEY OF GREAT BRITAIN

### Season 1955-56

The basic material for this report has been obtained, as in previous years, from returns made by voluntary observers who have provided, month by month, daily records of snowfall and of any snow cover in sight. 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 from voluntary climatological stations reporting to the Meteorological Office. Without the co-operation of all those responsible for these voluntary observations, this report could not have been prepared in anything like its present detail.

The measurements of snow depth are given in inches and refer in general to 0900 G.M.T. or thereabouts.

**Summary of 1955-56 season.**—Snowfall was about average, taking the season as a whole, and occurred mainly during January and February. There was little snow in November or after March except in Scotland. During January snow was most frequent in Scotland, but in February it was almost as frequent in the Midlands and eastern England as further north. Figs. 1 and 2 show the number of days of snow falling and snow lying respectively during the season and are based on observations from some 450 stations. Snow fell on more than 70 days in the Grampians, 50 over the high ground in the Southern Uplands, 40 in the Pennines and 30 over most of the country north of a line roughly from Aberystwyth, Cardiganshire, to Felixstowe, Suffolk, except western coastal districts, areas around the Humber basin and a broad belt across the country from the Firth of Clyde to the Firth of Forth. Few places had less than 10 days of snow and these were mainly along the south-west coast. The number of days with snow lying (at 0900 G.M.T.) during the season exceeded 60 in the Grampians, 50 in the Cheviots and northern Pennines, and 40 around Buxton, Derbyshire, the Yorkshire Wolds, the North Yorkshire Moors and in parts of Ross and Cromarty, Scotland. Snow lay for less than 10 days in most south and west coastal areas. For most of the country snow was deepest around February 21 (Fig. 3). Undrifted snow had on that day accumulated to a level depth of more than 10 in. in Kent, 8 in. in parts of East Anglia, Lincolnshire and Durham, and more than 12 in. in parts of the East Riding of Yorkshire and around the Cairngorms.

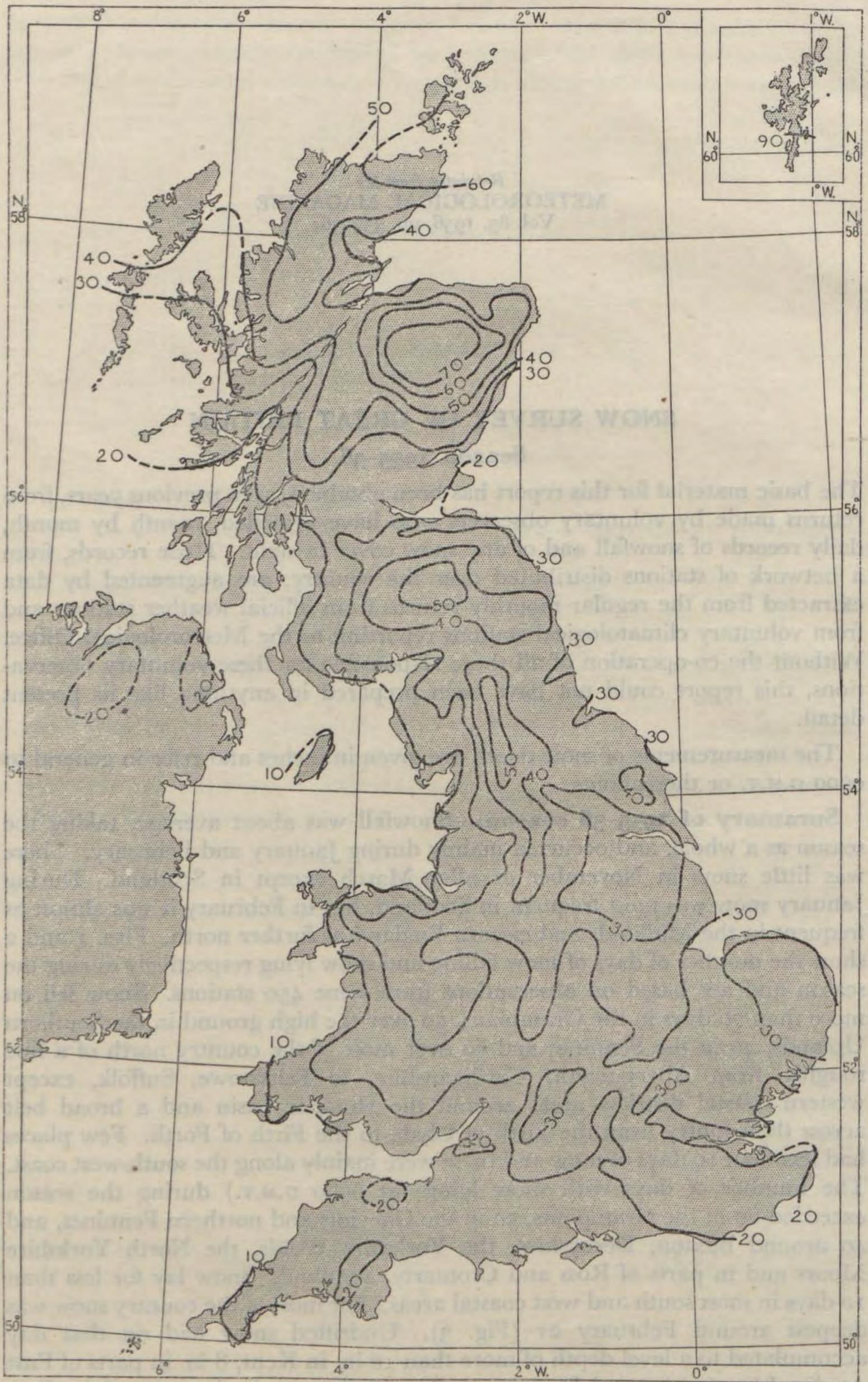


FIG. 1—NUMBER OF DAYS OF SNOW FALLING  
SEPTEMBER 1955 TO MAY 1956

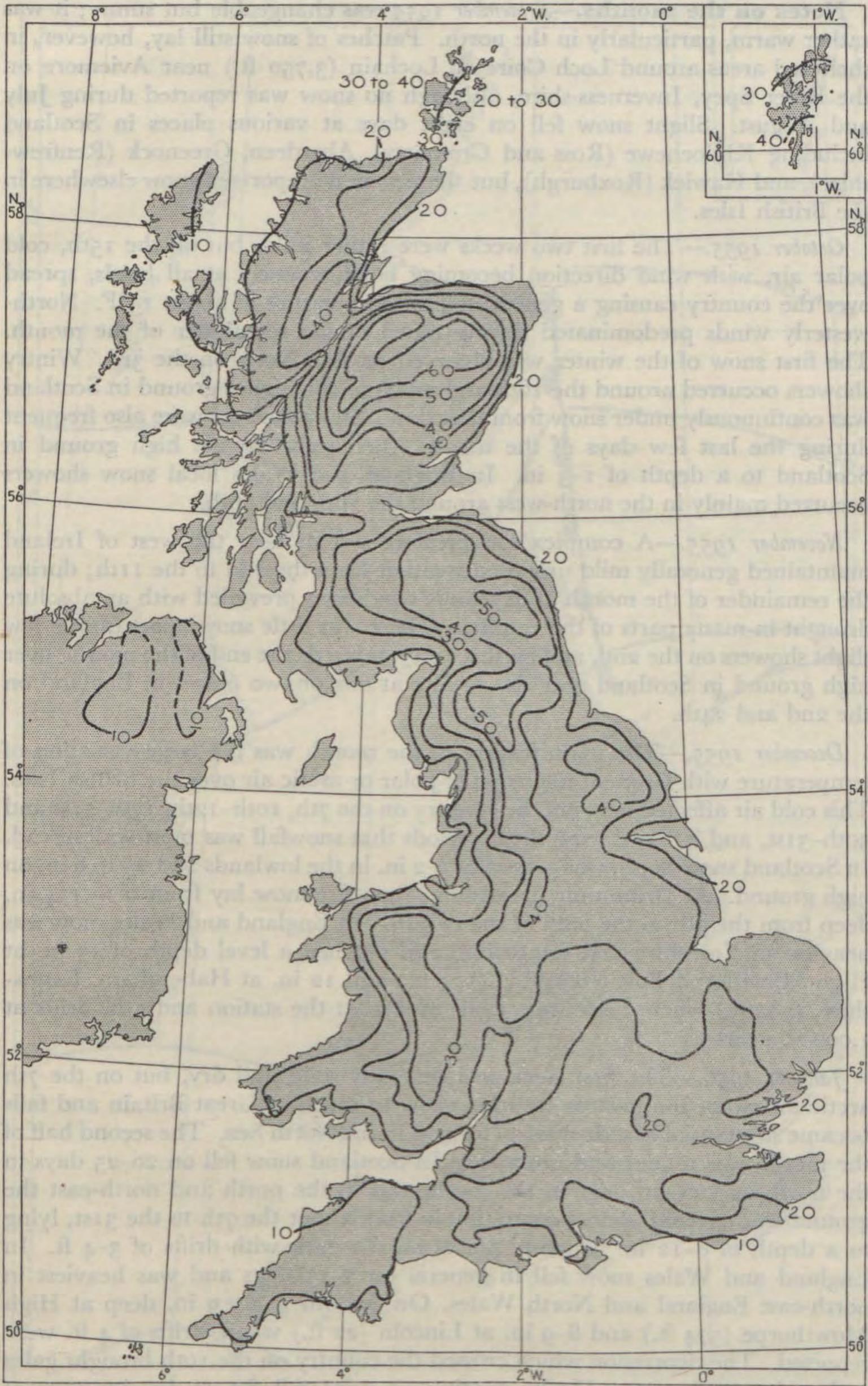


FIG. 2—NUMBER OF DAYS WITH SNOW LYING  
SEPTEMBER 1955 TO MAY 1956

**Notes on the months.**—*September 1955* was changeable but sunny; it was rather warm, particularly in the north. Patches of snow still lay, however, in sheltered areas around Loch Coire an Lochain (3,750 ft.) near Aviemore on the River Spey, Inverness-shire, although no snow was reported during July and August. Slight snow fell on eight days at various places in Scotland including Kinlochewe (Ross and Cromarty), Aberdeen, Greenock (Renfrewshire), and Hawick (Roxburgh), but there were no reports of snow elsewhere in the British Isles.

*October 1955.*—The first two weeks were rather mild, but on the 15th, cold polar air, with wind direction becoming north-westerly at all levels, spread over the country causing a general fall of temperature of about 15°F. North-westerly winds predominated during much of the remainder of the month. The first snow of the winter was observed on Ben Nevis on the 3rd. Wintry showers occurred around the 16th and much of the higher ground in Scotland was continuously under snow from that date. Snow showers were also frequent during the last few days of the month when snow lay on high ground in Scotland to a depth of 1–3 in. In England and Wales local snow showers occurred mainly in the north-west around the 16th and 26th.

*November 1955.*—A complex low-pressure system near the west of Ireland maintained generally mild unsettled weather from the 2nd to the 11th; during the remainder of the month anticyclonic conditions prevailed with an absolute drought in many parts of the country. There was little snow apart from a few slight showers on the 2nd, and on three days towards the end of the month, over high ground in Scotland and also locally at one or two places in England on the 2nd and 24th.

*December 1955.*—The main feature of the month was the large variation of temperature with frequent incursion of polar or arctic air over the British Isles. This cold air affected much of the country on the 7th, 10th–12th, 17th–21st and 30th–31st, and it was during these periods that snowfall was most widespread. In Scotland snow depth was generally 1–2 in. in the lowlands and up to 6 in. on high ground. At Drummair, Banffshire, (500 ft.) snow lay from 6 to 11½ in. deep from the 9th to the 28th of the month. In England and Wales snow was heaviest in Yorkshire and Lancashire and reached a level depth of 13 in. at High Mowthorpe, East Yorkshire, (574 ft.) and 12 in. at Habergham, Lancashire, (780 ft.) where there were drifts of 3 ft. at the station and 5-ft. drifts at 1,000 ft. nearby.

*January 1956.*—The first week was generally mild and dry, but on the 7th arctic air swept southwards to bring snow to much of Great Britain and falls became substantial as a depression formed in the North Sea. The second half of the month was milder and unsettled. In Scotland snow fell on 20–25 days in the north and 15–20 days in the south, and in the north and north-east the ground was covered almost continuously from about the 7th to the 31st, lying to a depth of 8–12 in. in many places on the 24th with drifts of 3–4 ft. In England and Wales snow fell in general on 7–15 days and was heaviest in north-east England and North Wales. On the 8th it lay 9 in. deep at High Mowthorpe (574 ft.) and 8–9 in. at Lincoln (22 ft.) where drifts of 4 ft. were reported. The depression which crossed the country on the 10th brought gales and widespread snow. Heavy continuous snow fell for 11 hr. in parts of Lincolnshire and lay to a depth of 15 in. Heavy falls of snow occurred on the

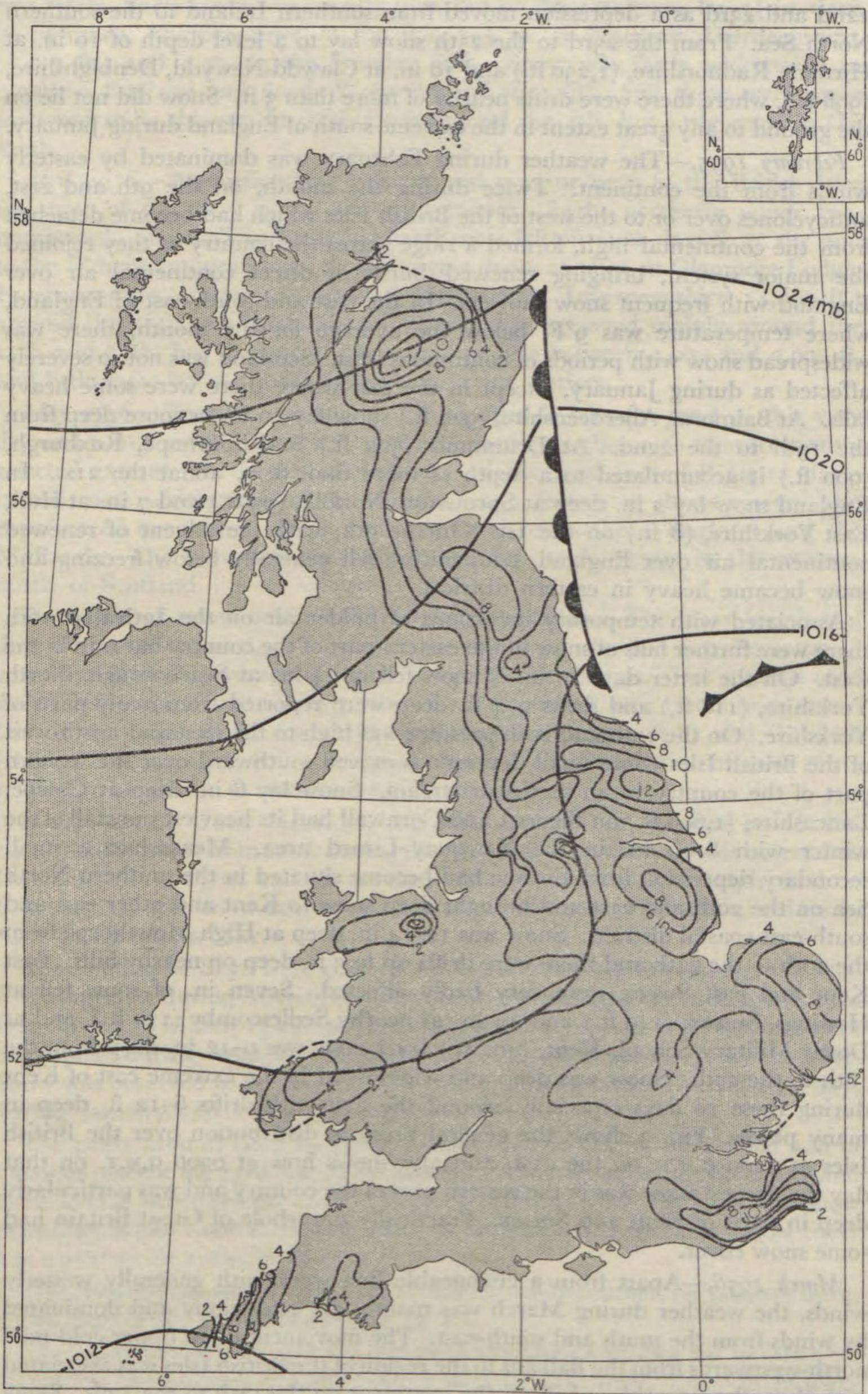


FIG. 3—SNOW DEPTHS AT 0900 G.M.T. AND PRESSURE DISTRIBUTION AT 1200 G.M.T., FEBRUARY 21, 1956

22nd and 23rd as a depression moved from southern Ireland to the southern North Sea. From the 23rd to the 25th snow lay to a level depth of 10 in. at Hirnant, Radnorshire, (1,250 ft.) and 18 in. at Clawdd-Newydd, Denbighshire, (998 ft.), where there were drifts nearby of more than 3 ft. Snow did not lie on the ground to any great extent in the extreme south of England during January.

*February 1955.*—The weather during February was dominated by easterly winds from the continent. Twice during the month, on the 9th and 21st, anticyclones over or to the west of the British Isles which had become detached from the continental high, formed a ridge across the country as they rejoined the major system, bringing renewed bursts of direct continental air over England with frequent snow showers. In the east and south-east of England, where temperature was 9°F. below the average for the month, there was widespread snow with periods of continuous frost. Scotland was not so severely affected as during January, except in the east where there were some heavy falls. At Balmoral, Aberdeenshire, (927 ft.) snow lay 10 in. or more deep from the 19th to the 22nd. At Drummuir (500 ft.) and Sourhope, Roxburgh, (900 ft.) it accumulated to a depth of more than 8 in. about the 21st. In England snow lay 2 in. deep at Sprowston, Norfolk, (93 ft.) and 7 in. at Hull, East Yorkshire, (8 ft.) on the 1st. On the 9th, with the advent of renewed continental air over England, temperature fell generally below freezing and snow became heavy in eastern districts.

Associated with temporary incursions of milder air on the 12th and 16th there were further falls of snow in the eastern part of the country but rain in the west. On the latter date 10 in. of snow fell in 24 hr. at Scarborough, North Yorkshire, (118 ft.) and drifts 3–4 ft. deep were reported from many parts of Yorkshire. On the 19th and 20th pressure was high to the west and north-west of the British Isles while small depressions moved southward over the western part of the country in an arctic air stream. Snow lay 8 in. deep at Cowpe, Lancashire, (1,000 ft.) on the 21st and Cornwall had its heaviest snowfall of the winter with 8–10 in. in the Newquay–Lizard area. Meanwhile a small secondary depression from Europe had become situated in the southern North Sea on the 20th and 21st and brought deep snow to Kent and other east and south-east coastal districts. Snow was 12–14 in. deep at High Mowthorpe from the 20th to the 24th and there were drifts up to 3 ft. deep on nearby hills. East Kent and east Sussex were very badly affected. Seven in. of snow fell at Hastings, Sussex, (149 ft.) and 13 in. at nearby Sedlescombe (170 ft.), and at Dover Military School, Kent, (402 ft.) level snow was 9–12 in. deep from the 18th to the 27th. Snow was deep and widespread in the extreme east of Kent during these 10 days especially around the 21st with drifts 6–12 ft. deep in many places. Fig. 3 shows the general pressure distribution over the British Isles at 1200 G.M.T. on the 21st, and also shows how at 0900 G.M.T. on that day the deepest snow was in the eastern part of the country and was particularly deep in parts of Kent and Sussex. Practically the whole of Great Britain had some snow cover.

*March 1956.*—Apart from a changeable first week with generally westerly winds, the weather during March was mainly dry and sunny and dominated by winds from the south and south-east. The movement of an upper cold pool north-westwards from the Balkans to the region of the British Isles was associated with the influx of colder air from the continent on the 14th to the 17th. Snow and sleet fell fairly widely in Scotland during this period and also during the

first week. Snow cover was usually thin, but on the 17th snow lay  $5\frac{1}{2}$  in. deep at Glenshee, Aberdeenshire, (1,100 ft.), 2-3 in. at Braemar, Aberdeenshire, (1,113 ft.) and 1 in. in the Dundee area. Snow was fairly widespread in northern England and north Wales around the 16th, and there were some scattered snow showers in these areas around the 4th, but little snow in the south.

*April 1956.*—An anticyclone was centred over or near to the British Isles for most of this dry, sunny but cold month. Light northerly winds predominated. In north and east Scotland snow fell on most days from the 2nd to the 18th and around the 26th. It lay to a depth of  $2\frac{1}{2}$  in. at Glenmore Lodge, Inverness-shire, (1,071 ft.) and at Achnagoichan, Inverness-shire, (1,000 ft.) around the 15th. In England and Wales snow occurred mainly around the 17th and 27th, but in general the snow-line was between 2,000 and 3,000 ft. and little snow lay at the level of the observing stations.

*May 1956.*—Pressure was high over the British Isles for most of this very dry and sunny month, though depressions passing to the north-west frequently affected extreme north-western districts. In Scotland snow fell on 11 days; it was most widespread on the 18th when a few snow showers were also experienced over some of the higher ground of northern England and the Midlands. The snow-line was mainly above 3,000 ft. except in the extreme north of Scotland.

**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 97 compared with an average of 83 for the past nine 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 11 stations are given in Fig. 4.

Harris, in the Outer Hebrides, was snow covered on October 13-21 and 24-30, but was free from snow during the whole of November. It was covered on December 7-13, 17-21 and 26-30, on January 5-31 (except the 29th) and on February 13-25. Snow cover was also observed 2 days in March, 5 days in April and 1 day in May.

The Cuillins of Skye were covered on October 14-19 and 25-29 and were free from snow during November. They were covered almost continuously from December 7 to March 13 except January 2-4 and February 7-8. Reports were incomplete during April but the peaks were snow covered for 7 days in May. Snow was observed to be down to sea level on 6 days during December, 4 days during January and 1 day in February.

The peaks around Glen Lyon were snow covered during the second half of October (except the 23rd and 24th), were free from snow during November and were almost continuously covered from December 8 to April 20, the snow extending below 1,000 ft. during much of January and February. Snow cover was observed on 1 day in May.

The Paps of Jura were covered on 6 days during December, on January 6-14, 17-18 and 21-25 and on February 15-27.

The Cairngorms were covered continuously from October 13 to May 25 except for November 5-7 and 25-30, 4 days in December, 1 day in January

\* These values are mean heights of the mountain groups.



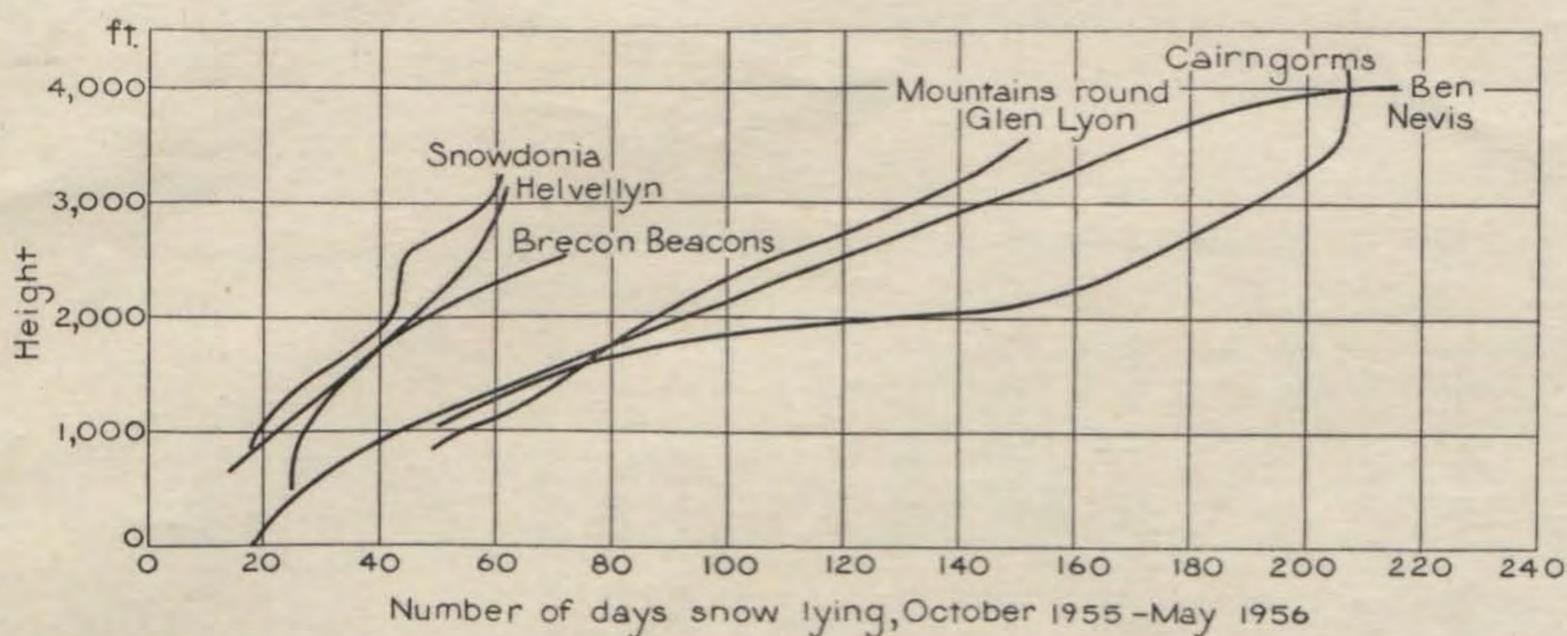


FIG. 5—SEASONAL DURATION OF SNOW COVER

and 2 days in May. Snow extended below 2,500 ft. from December 7–May 4 except for 5 days during the first week of January.

The summit of Ben Nevis was observed to be covered from October 13 until the end of the season except for November 30, December 27, January 28–30 and February 28. Snow extended below 3,000 ft. from December 8 until the end of the season except on the dates mentioned above when the summit was clear. Snow extended down to 1,000 ft. during the last three weeks of January and the first week and last two weeks of February except for the last three days.

The peaks near Capel Curig had snow cover above 3,000 ft. on 4 days during October, 8 days during December and from January 7 to February 27 except for January 8–9, 26–29 and February 2 and 5–8. Snow cover was also observed 2 days during March, 2 days during April and 1 day in May. Snow was reported down to sea level on most days during the third and fourth weeks of February.

The Brecon Beacons were snow covered at 2,500 ft. on December 12–26, January 8–February 28, and 3 days in April. Snow extended down to station level (660 ft.) on 1 day in December, 4 days during January and 10 days during February.

Cross Fell was snow-capped for 7 days in October, 13 days in December, from January 7 to February 27 (except February 4–8), on 6 days during both March and April and 1 day in May. Snow was observed down to station level (1,070 ft.) for much of the time from the second week of January until the end of February.

Helvellyn was snow covered for 2 days during October, 7 days during December, on January 7–15, 20–26 and January 30–February 26, and also 2 days during March and 4 days during April. Snow extended down to 2,000 ft. for most of this time, and down to station level (520 ft.) on 3 days during December, 9 days during January, 8 days during February and 1 day in March.

Curves showing the total seasonal duration at six stations are drawn in Fig. 5; 200 days snow cover was exceeded on Ben Nevis at 3,300 ft. and on the Cairngorms at 4,000 ft., 100 days cover was exceeded on the mountains about Glen Lyon above 2,300 ft. and 50 days on the Brecon Beacons, Helvellyn and Snowdonia at 2,000 ft., 2,300 ft. and 2,800 ft. respectively.