

# Monthly Weather Report

## OF THE METEOROLOGICAL OFFICE

Summary of observations compiled from returns of official stations and voluntary observers.

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### September 1970 — *A stormy second week; otherwise changeable in the north, more settled elsewhere*

Depressions and troughs of low pressure frequently affected northern districts of the British Isles. On the 9th/10th a very deep depression crossed northern and western areas and the mean-sea-level pressure at Belmullet (Republic of Ireland) fell to 962 mb. Anticyclonic interludes occurred around the 6th and from the 18th to 24th, predominantly in the south and east.

**Weather** — The month was mostly changeable in northern districts but there were spells of settled weather farther south. Most areas were stormy at times from the 7th to 16th with rain or showers which were accompanied often by strong winds. During this period there was a cool spell for the 9th to 15th and snow settled on Ben Nevis and peaks in the Cairngorms around the 13th. From the 16th to 28th many southern areas were dry and also warm by day, but fog occurred widely night and morning.

**Wind** — Winds were frequently fresh or strong during the month in the north and west. It was windy in Scotland on the 1st and a gust of 53 kt was recorded at Leuchars (Fife). During the period 8th to 10th, particularly strong winds affected most districts with gales in places which were severe on the 9th on western coasts; a gust of 75 kt occurred at Mull of Galloway (Wigtownshire). On the same day an hourly mean wind speed of 52 kt occurred at Valley - the highest mean wind speed recorded on Anglesey in September since at least 1912 - and a gust of 55 kt occurred at Porton (Wiltshire). Strong winds persisted on the 11th and 12th in southern parts of the country.

**Temperature** — Except in one or two places in Scotland and a small area in Northern Ireland, monthly mean temperature was above average but the difference from average did not exceed 1 degC, except slightly in a few places in east England and South Wales. A warm spell occurred in central and south-east England from the 4th to 8th and day-time temperatures were well above average everywhere at times from the 19th to 28th. Maxima recorded during the month included: 26.7°C at a number of places in eastern England on the 20th and at Gloucester on the 28th; 24.4°C in parts of North Wales on the 24th and 25th; 23.9°C at Glenlivet (Banffshire) on the 24th; 22.8°C at Tollymore Park (Co. Down) on the 20th.

The period 9th to 15th was cooler than average; air frost occurred in parts of Scotland on the morning of the 15th and air temperatures fell to around freezing-point farther south on the same day. Among minimum temperatures recorded during the month (excluding upland stations) were the following: -1.7°C at Strachan (Kincardineshire) on the 15th and 16th; 0.0°C at some stations in South Wales and at Caldecott (Leicestershire) on the 15th and also at Santon Downham (Norfolk) on the 30th; 0.3°C at Loughermore Forest (Co. Londonderry) on the 16th.

**Rainfall** — Monthly rainfall was below average in east Scotland and over most of England and Wales. Filey, on the coast of the East Riding of Yorkshire, and Skegness, on the Lincolnshire coast, recorded only 25 per cent and 27 per cent of average rainfall respectively and Chopwellwood (Co. Durham) had its driest September since 1941. On the other hand, more than one and a half times the average rainfall occurred in small areas in southern England, the Lake District, Northern Ireland and west Scotland where, at Blackwater Dam South (Argyll), it was the wettest September since 1950.

Noteworthy rainfalls occurred during a very changeable, often stormy, spell from the 7th to 16th and local flooding, especially in Scotland and Northern Ireland, followed heavy or persistent rain. This spell commenced when thunderstorms gave heavy falls of rain in the west

and north, especially in central Scotland; these were followed by further rain on the 9th from a deepening depression. 'Daily' falls of rain included 49 mm at Dundee on the 8th (most of which fell during a thunderstorm lasting about 90 minutes) and 50 mm at Glenbranter (Argyll) and 47 mm at Sloy (Dunbartonshire) on the 9th. Belts of rain crossed Wales and the southern half of England during the period 11th to 15th and rainfall was prolonged at times. Among heavy 'daily' falls of rain recorded during this period were 58 mm at Slapton (Devon) on the 11th and 49 mm at Whitstable (Kent) on the 14th. A dry spell commenced on the 16th in many areas in south and east England and some places had 13 consecutive days without measurable rainfall. This spell ended when rain fell in most parts of the country on the last two days of the month.

From the 7th to 10th thunderstorms occurred in many districts at times and they were particularly widespread and heavy in Northern Ireland and Scotland on the 7th and 8th. Lightning badly damaged a church steeple in Dundee on the 8th.

**Sunshine** — As a result of the changeable weather amounts of sunshine were well below average in Northern Ireland and in most of Scotland. At Duntulm (Inverness-shire) only 60 per cent of average sunshine was recorded and at Eskdalemuir Observatory (Dumfriesshire) there have been only two Septembers with lower sunshine totals (1946 and 1965) since records commenced in 1910. The month was dull also in many western areas of England and Wales but elsewhere sunshine amounts were about average or rather above and, although excesses were generally small, Nottingham had its sunniest September since 1959.

**Fog** — From the 18th to 28th, overnight fog was a feature of the weather in England and Wales and fog occurred at times also in parts of Scotland. Fog was often widespread but cleared by day except occasionally near coasts.

**Miscellaneous Phenomena** — The aurora was seen by observers in Scotland on 10 nights. On the 15th a waterspout occurred over the sea near Aberystwyth.

TABLE I—DISTRICT VALUES, September 1970

DISTRICTS	AIR TEMPERATURE °C					EARTH TEMP. °C		RAIN DAYS	RAIN-FALL	SUNSHINE
	*Highest Max.	*Lowest Min.	Max.	Min.	Mean	Mean 30 cm.	Mean 122 cm			
	Difference from Average									
0 SCOTLAND, N.	18.3	1.6	-0.2	-0.2	-0.2	+0.1	-0.3	+2	108	79
1 SCOTLAND, E.	22.2	2.8	+0.4	+0.8	+0.6	+0.5	0.0	+5	98	87
2 ENGLAND, N.E.	26.1	1.7	+0.6	+0.7	+0.6	+0.5	+0.2	-2	50	104
3 ENGLAND, E.	26.1	5.0	+0.8	+0.4	+0.6	-0.1	-0.2	-2	81	107
4 MIDLANDS	25.6	3.3	+0.8	+0.7	+0.7	+0.3	+0.1	-2	80	114
5 ENGLAND, S.E.	25.6	4.3	+0.7	+0.4	+0.5	-0.2	-0.6	-1	127	112
6 SCOTLAND, W.	20.2	-0.1	-0.4	+0.5	0.0	+0.3	-0.1	+5	143	73
7 ENGLAND, N.W. and N. Wales	24.7	3.3	+0.4	+0.8	+0.6	+0.3	-0.1	+2	78	75
8 ENGLAND, S.W. and S. Wales	25.0	4.4	+0.4	+0.9	+0.6	+0.6	+0.2	-2	101	94
N. IRELAND	21.2	1.8	0.0	+0.4	+0.2	--	--	+5	127	80
SCOTLAND	22.2	-0.1	-0.1	+0.4	+0.1	--	--	+4	114	80
ENG. and WALES	26.1	1.7	+0.6	+0.6	+0.6	--	--	-1	86	101

\*Highest Max. and Lowest Min. of the District Value Stations.