

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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June 1970—Warm and sunny but with some heavy thunderstorms

Anticyclonic weather affected all areas during the first 5 days of the month and persisted over much of Scotland until the 19th. Elsewhere, however, relatively low pressure predominated from the 6th with easterly winds in most areas until on the 20th a westerly airstream became established over the British Isles and troughs of low pressure frequently crossed all districts.

Weather — The first 3 weeks of the month were mainly sunny and warm in most areas away from the North Sea coast. Although many parts of the country remained dry during this period, other places had violent thunderstorms, especially during the second week. Flooding followed intense falls of rain and some places recorded more than twice their June average rainfall in a very short interval of time. Damage due to lightning occurred in many areas. The last 10 days of June were changeable everywhere and rain, which was sometimes thundery, fell on most days.

Wind — Gales were reported locally on 6 days in England, on 2 days in Scotland and Northern Ireland and on 1 day in Wales. Gusts over 40 kt were reported on the south coast of England from the 3rd to 5th and occurred more widely at times during the last week.

Temperature — Monthly mean temperature in most areas was 1–2 degC above average. Near the east coast mean temperature was above average but the excess reached over 2 degC in parts of the north and west of the United Kingdom. Around Manchester and Southampton June 1970 ranks as the warmest June since records became available in these localities in 1877 and 1901 respectively.

Away from the east coast the first 3 weeks were warmer than average. During the second week temperatures in many inland areas exceeded 29°C in the south and 27°C in the north, while night temperatures also remained above average. Although the last 10 days were cooler in most districts, eastern areas were generally warm. Maxima recorded during the month included: 31.7°C at Maldon (Essex) on the 10th; 30.6°C at Barr (Ayrshire) on the 11th; 28.9°C at a number of places in Wales on the 10th; 27.5°C at Banagher, Caugh Hill (Co. Londonderry) on the 11th.

Despite warm days during the first week there were a few cold nights in some northern areas, and, later, ground frost occurred in parts of Kent around the 15th. Temperatures were generally below average during the last 10 days (except in eastern areas) and ground frost was reported in Northern Ireland on the 30th. Apart from upland areas, minimum temperatures during the month included: 0.0°C at Strachan (Kincardineshire) on the 14th; 0.6°C at Kielder Castle (Northumberland) on the 5th; 1.7°C at Corwen (Merioneth) on the 5th and 6th and at Woodburn North (Co. Antrim) on the 30th.

Rainfall — Large areas of the country had below average rainfall but the average was substantially exceeded in a few localities because of heavy local falls of rain in thunderstorms. At Pershore College of Horticulture (Worcestershire) the months rainfall amounted to 394 per cent of average whereas at Stratford-on-Avon, about 25 miles away, only 88 per cent of average was recorded. Despite thunderstorms, many places had very little rain until the 23rd.

Noteworthy rainfall features of the month were associated with thunderstorms and intense local rainfalls in some places contributed to 'daily' falls near to or in excess of 100 mm. All the heavy falls of rain in short periods of time given below are classified as 'very rare'; that is their statistical frequency of occurrence at a particular place is limited to one occasion in 160 years, or even less frequently. On the 7th, heavy thunderstorms broke out in east Scotland and nearly 93 mm of rain fell in 117 minutes at Lossiemouth (Moray); a fall of such intensity can be expected to occur, on average, at any one place on only 1 day in about 450 years. (The June average rainfall at Lossiemouth is 51 mm.) On the 9th over 62 mm of rain were reported to have fallen in

45 minutes at Launceston (Cornwall). Thunderstorms occurred widely in England and Wales on the 11th and 67 mm of rain fell in 25 minutes at the Radar Research Establishment, Pershore. Other intense rainfalls on the 11th occurred at Rawtenstall (Lancashire), Reading (Berkshire) and London/Heathrow Airport where sudden flooding of the runways resulted in the temporary closure of the airport. During violent thunderstorms in the east Midlands and East Anglia on the 27th about 83 mm of rain fell in 2 hours in Cambridge.

Thunder occurred on 20 days in England, on 14 days in Scotland, on 12 days in Wales and on 7 days in Northern Ireland; in some areas the number of days with thunder reported was twice the average for June. On the 11th, hailstones 20–22 mm in diameter fell at Ross-on-Wye, Reading and Manchester. On the 27th large hailstones caused great damage to crops and glasshouses at Fleckney, near Leicester, and at Whittlesey, near Peterborough, where hailstones were described as 'the size of golf balls'. According to the Farming Press more than 4000 acres of growing crops were devastated in the Isle of Ely and thousands more acres were badly damaged causing severe financial loss to farmers and growers. During the month four persons were reported killed by lightning and others were injured.

Sunshine — Although parts of south-west England and east Scotland recorded less sunshine than average, all other areas had above average amounts. Among the most favoured areas was extreme north-west Scotland where Stornoway (Hebrides) had its sunniest June since records commenced in 1880. London Weather Centre had its highest June sunshine total since records began in 1929. Apart from some areas on the east coast, sunshine was abundant in many places during the first 20 days. Although sunshine was less plentiful towards the end of the month southern and eastern districts continued to have sunny periods.

Fog — From the 1st to 20th sea fog often affected eastern coasts of England and Wales and sometimes extended well inland at night, covering high ground. Isolated patches of morning fog formed occasionally in southern areas during the month and fog covered hills in western areas at times during the last week.

Miscellaneous Phenomena — On the 27th three waterspouts were observed simultaneously in the Wash near Kings Lynn.

TABLE I—DISTRICT VALUES, June 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							% of Average		
0 SCOTLAND, N.	23.4	2.3	+2.2	+1.2	+1.7	+1.6	+0.1	-7	68	147
1 SCOTLAND, E.	26.1	2.8	+1.2	+0.6	+0.9	+0.8	+0.4	-3	94	118
2 ENGLAND, N.E.	26.7	4.4	+1.5	+0.7	+1.1	+1.6	+0.8	-6	57	130
3 ENGLAND, E.	28.9	4.4	+1.7	+1.0	+1.4	+1.2	+0.9	-4	70	129
4 MIDLANDS	28.6	6.1	+2.4	+1.1	+1.7	+1.7	+1.1	-4	110	128
5 ENGLAND, S.E.	29.1	3.9	+1.9	+1.2	+1.6	+0.8	+0.4	-4	71	120
6 SCOTLAND, W.	28.3	4.2	+2.3	+1.4	+1.8	+0.8	+0.4	-5	79	124
7 ENGLAND, N.W. and N.Wales	29.4	3.9	+3.0	+1.4	+2.2	+0.8	+0.4	-3	73	129
8 ENGLAND, S.W. and S.Wales	28.9	4.4	+1.6	+1.4	+1.5	+0.7	+0.7	-1	79	110
N.IRELAND	27.7	3.6	+2.3	+1.4	+1.9	-	-	-1	78	117
SCOTLAND	28.3	2.3	+1.9	+1.0	+1.5	-	-	-5	87	130
ENG. and WALES	29.4	3.9	+2.0	+1.1	+1.6	-	-	-4	83	124

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