

MONTHLY WEATHER REPORT

COMPILED FROM RETURNS OF OFFICIAL AND VOLUNTARY OBSERVERS

MET. O. 969

U.D.C. 551 506 1 (41-4)

JULY

1984

VOLUME 101

NUMBER 7

Mainly dry and sunny; heavy storms locally later

A weak trough of low pressure moved southwards over eastern parts of Great Britain during the 1st and 2nd. By the 3rd an anticyclone was becoming established over the British Isles with a deep Atlantic depression to the south of Greenland, and an area of shallow low pressure over Spain. On the 6th the anticyclone began to move away eastwards into northern Germany, then on the 8th/9th, a complex low-pressure area, which had developed to the west of Ireland in the previous days, began to edge in towards the British Isles and the associated fronts crossed all areas during the following seven days. After the 17th, high pressure slowly became re-established over the British Isles where it remained for the next week. On the evening of the 22nd, and during the next two days southern districts were affected by localized instability as the result of thermal heating during the afternoon. Then, on the 25th, the anticyclone gradually slipped away southwards, to bring the whole of the British Isles under the influence of low pressure by the 31st.

Weather

Most parts of the United Kingdom were very dry and sunny, and at times very hot, particularly during the first half of the month, although persistent cloud over northern Scotland, the Western Isles and the coastal strip of East Anglia made those places cooler and much less sunny than elsewhere. There were frequent reports of thunderstorms, especially on the 2nd, between the 8th and 15th, the 22nd and 25th, and on the 30th. On the 22nd thunderstorms developed over Norfolk and the Thames Valley and hailstones up to 14 mm in diameter fell on Maidenhead, Berkshire. On the evening of the 23rd in the area of Bracknell, Berkshire a heavy storm brought hailstones of 10 mm to 20 mm diameter, causing damage to garden produce. Lightning was apparently the cause of a fire which destroyed the roof of the 13th-century transept of York Minster on the 9th. Lightning temporarily halted play in a cricket match at Wolverhampton, West Midlands on the 11th when it struck the pitch, throwing two players to the ground.

Wind

This was a very quiet month with winds mostly light throughout except between the 9th and 12th, when they were fresh or strong at times, mainly in the far west, and during the last week, when they were moderate to fresh in places. The month began with the direction north-westerly in the north and variable in the south. Directions became generally southerly until the 13th, when they became westerly. From the 19th directions were northerly and then variable, followed by three days of easterlies. Then, from the 26th until the end of the month, the direction was southerly or westerly. Sea-breezes developed occasionally on coasts in southern England.

Temperature

Mean temperatures were about 1 °C above average nearly everywhere in the United Kingdom, except for parts of East Anglia, where they were just below normal. At a number of places in central Scotland temperatures were about 2 °C above average.

After a somewhat cool start to the month, temperatures rose, so that by the 4th it was warm. By the 8th it had become very warm and the month's highest maximum of 31.7 °C was reached at London Airport (Heathrow), Greater London. The 8th was the warmest day since August 1983, with temperatures over 26 °C in many places. There were reports of the heat cracking the westbound carriageway of the M40 motorway at Stokenchurch, Buckinghamshire, pushing up lumps of tar and causing the closure of one lane. By mid month it had become less warm with the maximum temperature just over 20 °C in the south of England. Then it gradually warmed up until in the last four days it was again very warm, with afternoon temperatures around 30 °C in parts of south-east England on the 27th, 28th and 30th, and in Jersey, Channel Islands on the 29th.

Rainfall

Apart from some localized thunderstorms giving high rainfall during the latter half of the month, it remained generally dry. In some parts of England and Wales, especially in western districts, the continuing drought caused concern throughout the month, with measures being taken to restrict the use of water. Where rain did fall in the affected areas, it was insufficient in amount to relieve the shortage of water. In Scotland rainfall amounts were low, around 45 per cent of average, and similar to those of July 1982, mostly from showers. However, owing to the vagaries of shower distribution, the Glasgow area missed most of the rain and recorded the driest July since records began in the middle of the last century.

Many areas had some rain or showers at some time during the month, sometimes with moderate falls. On the 11th there was considerable flooding in the vicinity of Carrickfergus, Co. Antrim with a fall of 35 mm in 35 minutes. On the same day 47 mm was measured at Machrihanish, Strathclyde and 31 mm at Bastreet, Cornwall. On the 22nd, Maidenhead, Berkshire, had a fall of some 21 mm within an hour. On the evening of the 23rd in the Bracknell, Berkshire area there was a fall of 43 mm

in 48 minutes, of which 20 mm fell in 15 minutes. In the early hours of the 24th there was a heavy storm in the Portsmouth area of Hampshire, resulting in a total fall of 91.5 mm at Hayling Island. In the same area Southsea and Butser (Hillhampton) each recorded 48 mm on the 24th, while Rogate and Bexhill, both in Sussex, recorded 55 mm and 41 mm respectively.

Sunshine

Monthly sunshine totals were above normal nearly everywhere with over 150 per cent of average recorded in the greater part of Wales, the west Midlands and parts of north-west England. The sunniest areas were part of Co. Down in Northern Ireland, and parts of mid Wales and North Wales, where over 175 per cent of the average was recorded. Northern Scotland and the Western Isles, together with the coastal strip of East Anglia, were all below normal, mainly as the result of persistent low cloud. Sunny days were more frequent in the south and west. The least sunny period was between the 13th and 14th when the maximum sunshine was 8.6 hours at Jersey, Channel Islands and Kildoran, Isle of Arran, and 7.8 hours at Lerwick, Shetland respectively.

Fog

Fog occurred frequently overnight, particularly during the second half of the month when it became widespread. Although it mostly cleared from inland areas by mid morning, it persisted in coastal districts at times. Sea fog formed mostly around western coasts in the first and third weeks. Hill fog was mainly confined to north-western and central areas early in the month and to western areas around mid month.

Miscellaneous Phenomena

On the 21st a well-developed dust devil left a covering of straw on roofs and gardens at Velindre, Powys. Another dust devil was reported at Towy Castle, Dyfed on the 23rd. At Bramham, West Yorkshire a whirlwind took straw up to a height of 50 to 60 metres on the 25th.

Table 1 District values

District	air temperature °C					mean 30 cm soil temp°C	rain- days	rainfall	sun- shine
	Highest Max*	Lowest Min*	max.	min.	mean				
			difference from average					% of average	
0 Scotland N	27.0	0.4	+1.2	+0.7	+1.0	+0.6	−2	55	89
1 Scotland E	28.1	1.8	+2.2	+0.7	+1.5	+0.7	−5	51	118
2 England E & NE	28.5	1.2	+1.9	+0.1	+1.0	+0.8	−5	37	131
3 East Anglia	30.0	4.6	+0.7	−0.5	+0.1	−0.3	−3	46	106
4 Midland Counties	31.5	2.5	+2.5	−0.5	+1.0	+0.5	−6	30	148
5 England SE & Central S	31.7	5.4	+1.5	−0.2	+0.6	+0.3	−2	56	119
6 Scotland W	28.4	−0.2	+2.1	+0.1	+1.1	+1.1	−7	46	133
7 England NW & Wales N	30.8	3.0	+2.2	0.0	+1.1	+0.7	−7	32	158
8 England SW & Wales S	29.8	1.9	+2.0	−0.2	+0.9	+1.3	−4	45	140
N Ireland	26.1	1.7	+1.6	+0.3	+1.0	+0.8	−8	60	127
Scotland	28.4	−0.2	+1.8	+0.5	+1.2	+0.8	−5	52	113
England & Wales	31.7	1.2	+1.8	−0.2	+0.8	+0.5	−5	40	134

*Highest maximum and lowest minimum of District Value Stations