

MONTHLY WEATHER REPORT

COMPILED FROM RETURNS OF OFFICIAL AND VOLUNTARY OBSERVERS

FEBRUARY 1990

VOLUME 107

NUMBER 2

Mild, very wet and very windy

On the 1st an intense depression passed to the north-west of the British Isles, its associated frontal system crossing most areas. Early on the 3rd a small but active depression moved along the English Channel. By the 4th pressure was rising over the Continent, while a complex low-pressure area formed in the Atlantic; during the next week the gradient remained very tight and frontal systems became very slow moving to the west of the United Kingdom, while disturbances moved north-eastwards along the fronts. Between the 10th and 13th a series of intense depressions passed by or across Scotland, while the associated frontal systems crossed the United Kingdom. A waving front affected southernmost counties of Wales and England on the 14th; further north an eastward-moving trough crossed during the evening. By the 16th the complex low pressure area had shifted to the east of the United Kingdom, giving way to a transient ridge of relatively high pressure moving in from the west. A shallow frontal disturbance affected the far south-west of England during the night of the 15th/16th. Late on the 16th and during the 17th fronts associated with the next Atlantic low pressure complex crossed the United Kingdom. A very deep depression passed between Scotland and Iceland on the 19th, its associated frontal system moving quite quickly across Scotland but becoming slow moving across northern England and the Irish Sea. Further disturbances moved north-eastwards across Scotland on the 19th and 20th, with fronts making slow and erratic progress south-eastwards across the rest of England and Wales. Atlantic fronts moved across the north-western half of Scotland overnight on the 21st/22nd, and then edged erratically south-eastwards on the 23rd, followed, on the 24th, by a more-marked disturbance on the frontal zone moving north-eastwards across Scotland while the cold front swung eastwards across England and Wales. A further front quickly followed from the west during the 25th. A very deep depression then crossed Scotland overnight on the 25th/26th, while an intense secondary depression crossed England and Wales from the west.

Weather

The month was generally unsettled and at times very wet with only about seven dry days, mainly over England and Wales and eastern Scotland. Early on the 3rd prolonged heavy rainfall occurred south-east of a line from the Bristol Channel to The Wash, resulting in flooding, and the rain turned to snow in many places before it cleared. On the 19th very heavy rainfall over north-west England and North Wales caused flooding, while central and eastern England stayed mainly dry. The coincidence on the 26th and 27th of strong winds, low atmospheric pressure and 'spring' tides led to severe flooding and wave damage along several British coasts: Towyn, Clwyd suffered a major disaster when sea defences were overwhelmed. Sheltered eastern areas escaped most of the showers on the 27th. There was thunder in places, occasionally accompanied by hail, on the 2nd, 8th and 9th. Thundery outbreaks occurred on the 23rd in parts of southern Scotland and the far north-west of England and Wales.

Wind

February was generally very windy, with strong winds or gales on about 14 days and severe gales on the 1st, 19th, 27th and 28th. Gusts in excess of 60 kn were widely reported on the 12th and 26th, whilst gusts in excess of 70 kn were reported on the 1st, 7th and 11th in the south-west including 81 kn at Burrington, Devon on the 11th. On the 26th there were gusts of 85 kn and 86 kn at Leeds, West Yorkshire and Hemsby, Norfolk. The highest gust of the month was 113 kn at Cairngorm, Highland Region on the 22nd. Wind direction was predominantly south-westerly throughout the month.

Temperature

Mean monthly temperatures were above normal everywhere and ranged from 0.4 °C above normal in the far north-west of Scotland to more than 4.3 °C in south-east England.

The night of the 19th/20th was exceptionally mild, with temperatures between 10 °C and 13 °C over most of England and Wales. The 23rd was a very mild day, with temperatures reaching 17 °C quite widely, and more than 18 °C in parts of Wales, the Midlands and eastern England. The highest temperature of the month was 19.2 °C at March, Cambridgeshire on the 23rd and the lowest was -8.4 °C at Grantown-on-Spey and Kinbrace, both Highland Region, on the 15th.

Rainfall

Monthly rainfall totals were above normal everywhere in the United Kingdom and ranged from 111% at Aberdeen, Grampian Region to 438% in the western Highlands.

Heavy rain in Scotland gave a fall of 49 mm at Sloy Power Station, Strathclyde Region on the 1st. Much of England and Wales had heavy rain on the 6th and 7th; many places in south-west England had more than 25 mm of rain, with Torbay having about 50 mm, and hilly areas of southern and western Wales also had about 25 mm; Cilfynydd, Mid Glamorgan accumulated 108 mm of rain over the two days. There was further widespread flooding along the valleys of the Wye, Severn and

Thames. Further heavy rain gave daily falls of 43 mm at Glenlee, Dumfries and Galloway on the 11th, and 45 mm at Bastreet, Cornwall on the 13th. At Fort Augustus, Highland Region it was the wettest February since records began in 1886, the previous wettest having been February 1989. At Paisley, Strathclyde Region it was the wettest February since 1894. Heavy falls included 84 mm at Black Mount, Strathclyde Region on the 4th, 63 mm at Yarnier Wood, Devon on the 6th, 67 mm at Pencelli, Powys on the 7th, 57 mm at Clattering-shaws, Dumfries and Galloway on the 11th, and 83 mm at Betws-y-Coed, Gwynedd on the 19th.

Snow

On the 8th and 9th there was snow in places over much of Scotland and over high ground in western parts of England and Wales. On the 11th very wet weather came to many areas, giving heavy snow on high ground in Scotland. In northern areas showers of sleet or snow fell during the evening of the 14th, but only in central and north-eastern Scotland were there very small accumulations. Scotland had further snow showers, mostly in the west and north on the 28th.

Sunshine

Monthly sunshine amounts were generally above average in eastern areas and below average in western areas, ranging from 57% of average at Aspatia, Cumbria to 164% at Wyton, Cambridgeshire. The most sunshine in a day was 9.9 hours at Clacton-on-Sea, Essex on the 27th and the most sunshine in the month was 117 hours at Folkestone, Kent.

Fog

The incidence of overnight fog formation was negligible during the month. Some coastal fog patches occurred on the 7th, 10th, 17th and 19th, and some patches of hill fog on the 10th, 17th, 23rd and 24th, mainly in south-west England and south-western Wales.

Miscellaneous Phenomena

None reported.

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			
0 Scotland N	14.3	−8.4	+1.5	+1.9	+1.7	+1.0	+9	305	79
1 Scotland E	16.1	−4.8	+2.4	+3.1	+2.7	+1.7	+6	260	113
2 England E & NE	17.4	−4.2	+3.6	+3.5	+3.5	+2.3	+5	192	120
3 East Anglia	18.6	−2.5	+4.3	+3.7	+4.1	+2.7	+1	194	152
4 Midland Counties	18.0	−4.0	+4.1	+3.7	+3.9	+2.6	+5	200	130
5 England SE & Central S	17.8	−2.1	+4.2	+4.1	+4.1	+2.9	+5	246	140
6 Scotland W	13.2	−6.1	+2.0	+2.8	+2.4	+1.7	+10	307	66
7 England NW & Wales N	16.6	−3.0	+3.1	+3.7	+3.2	+2.5	+9	239	83
8 England SW & Wales S	17.5	−2.5	+3.5	+3.8	+3.5	+2.6	+7	227	91
N Ireland	14.2	−4.1	+1.6	+1.6	+1.6	+1.1	+8	248	91
Scotland	16.1	−8.4	+2.0	+2.6	+2.3	+1.5	+8	300	86
England & Wales	18.6	−4.2	+3.8	+3.7	+3.7	+2.6	+5	217	119

* Highest maximum and lowest minimum of District Value Stations