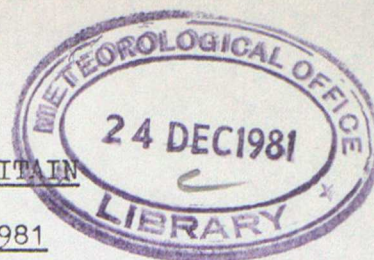


METEOROLOGICAL OFFICEESTIMATED SOIL MOISTURE DEFICIT OVER GREAT BRITAINSOIL MOISTURE DEFICIT AT 0900 ON 23 DEC 1981

The cold air which covered Great Britain when the last commentary was issued (9 December 1981), has been the most dominant feature during the last fortnight bringing snow to nearly all areas.

Sunday the 13th saw the heaviest general precipitation, when winds reached gale force in the south west and strong elsewhere, as snow spread from the west during the day, reaching all but extreme Northeast Scotland by late evening, giving blizzard conditions in places. In the south the snow turned to rain in the afternoon and evening, there was also flooding in southwest England.

The thaw in the south was shortlived except in the southwest and the extreme south where further precipitation fell as rain. In most other places further precipitation fell as sleet or snow. There was a generally drier period from the 15th to the 18th although rain fell in southwest England on the 15th and 16th with up to 25 mm in places. Precipitation fell in the west of the country on the 19th; 60 mm being reported over the moors of southwest England, 25 mm over the hills of south Wales and 30 mm over the western Isles of Scotland and became more widespread on the 20th and 21st, the 22nd was generally a drier day.

Rainfall (or equivalent rainfall) for the fortnight varied from less than 20% of average over parts of western Scotland, 14% of average was reported at Fort William and 19% at Prestwick, (although up to 150% of average was reported over the western Isles) to more than 250% of average over Cornwall.

England and Wales with the exception of parts of Western Wales and Northern England generally had more than average precipitation while Scotland, with the exception of the southeast and the western Isles had less than the average.

Some snow water equivalent values received from the Severn Trent Water Authority, show that at 0900 on Wednesday 23 December in the Upper Derwent, the Edale Valley between 1000 ft and 1500 ft had snow water equivalent values from 65 mm to 85 mm, Chatsworth had a snow water equivalent of 54 mm, Flash 91 mm, Tideswell 60 mm and Charnwood Forest had values between 50 mm and 65 mm, while in the Lower Trent, Sutton had a snow water equivalent of 41 mm and Gainsborough had 40 mm. Other reports received show equivalent values of approximately 20 to 30 mm over East Anglia, 35 mm at Birmingham and mostly less than 10 mm in the Thames Valley.

Over all River Division s mean deficits are approximately the same or lower than they were a fortnight ago. In spite of this some divisions bordering the east coast still have deficits above the seasonal average.

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Issued 24 December 1981

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 23 DEC 1981

River Area	Areal land use	Change during the week ending 09 GMT on	
	Estimated S.M.D. mm	23 Dec 81 mm	16 Dec 81 mm
Northumbrian	7.7	-0.8	- 2.1
Yorkshire	16.8	+3.3	- 2.9
Trent	13.6	-0.4	- 5.6
Lincolnshire	56.2	-0.5	- 9.3
Welland and Nene	26.1	-1.3	-12.5
Great Ouse	19.0	-1.9	-10.8
Norfolk and Suffolk	30.0	-3.5	- 9.3
Essex	27.8	-2.8	-12.2
Lee Division	5.1	-2.5	-12.7
Thames Conservancy	4.0	-1.1	- 4.5
London Area	0.0	-1.5	- 4.4
Kent	4.3	-0.8	- 3.3
Sussex	0.0	-0.1	+ 0.1
Hampshire	1.2	-1.1	- 1.3
Isle of Wight	0.0	0.0	- 6.5
Upper Thames	7.4	-1.2	- 2.9
Avon and Dorset	1.3	-1.0	- 0.8
Devon	0.1	-0.5	- 2.6
Cornwall	0.0	0.0	0.0
Somerset	0.1	-0.1	- 1.1
Bristol Avon	0.1	-0.2	- 0.9
Severn	5.1	-0.5	- 2.6
Wye	2.2	-0.5	+ 0.7
Usk	0.1	+0.1	0.0
Glamorgan	0.1	+0.1	0.0
South West Wales	0.1	0.0	+ 0.1
Gwynedd	0.1	0.0	+ 0.1
Dee and Clwyd	0.1	0.0	+ 0.1
Mersey and Weaver	0.1	0.0	+ 0.1
Lancashire	0.1	0.0	+ 0.1
Cumbria	0.1	0.0	0.0

N.B. Apart from normal changes these differences also reflect retrospective adjustments after receipt of additional data.

