VS

METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL EVAPOTRANSPIRATION OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 GMT ON 13 OCTOBER 1982

The weather over the whole of the British Isles has been very unsettled during the last fortnight with depressions and their associated frontal systems crossing the country from the west. There have been occasional drier days in between the systems more especially in Scotland.

The wettest day over England and Wales was the 2nd October with a general value of 12.4mm when a slow moving front crossed the country. The wettest day generally over Scotland was yesterday (12th), with a general value of 18.5mm, as a deepening depression approached from the west and an occlusion moved north over the area. Scotland also had two other days with general values greater than 10mm, they were the 1st October with a general value of 13.3mm, under the influence of a front in a strong SW'ly airstream and the 4th with a general value of 12.8mm when there were thunderstorms reported in Southern Scotland. Isolated thunderstorms were also reported over Southern England on the 10th, over N.E.England on the 11th, and over S.W.England and S.W.Scotland on the 12th.

There have been several heavy falls reported during the period of this bulletin, the following are among those that reported more than 40mm during the 24 hour 09-09 GMT rainfall day.

1st Oct	Glenlee in Southwestern Scotland	48.3mm
1st Oct	Sloy Power station in Scotland	45.0mm
1st Oct	Brynamman in South Wales	47.7mm
1st Oct	North Hill in South Western England	48.7mm
2nd Oct	Honington in East Anglia	40.8mm
4th Oct	Manston in Kent	41.0mm
12th Oct	Leuchars in Scotland	40.5mm

England and Wales with the exception of the extreme north had more than average rainfall for the period with some parts of South Eastern England having more than three times the normal. Scotland generally had near or less than average in the West and more than average in the East where again some areas had more than 3 times the normal. Individual reports ranged from 58% of average at Carlisle to 387% of average at Manston in Kent.

Areal deficits are now lower, in all areas where they existed, than they were a fortnight ago. Nearly all the river board areas now have deficits below the average for the time of year.

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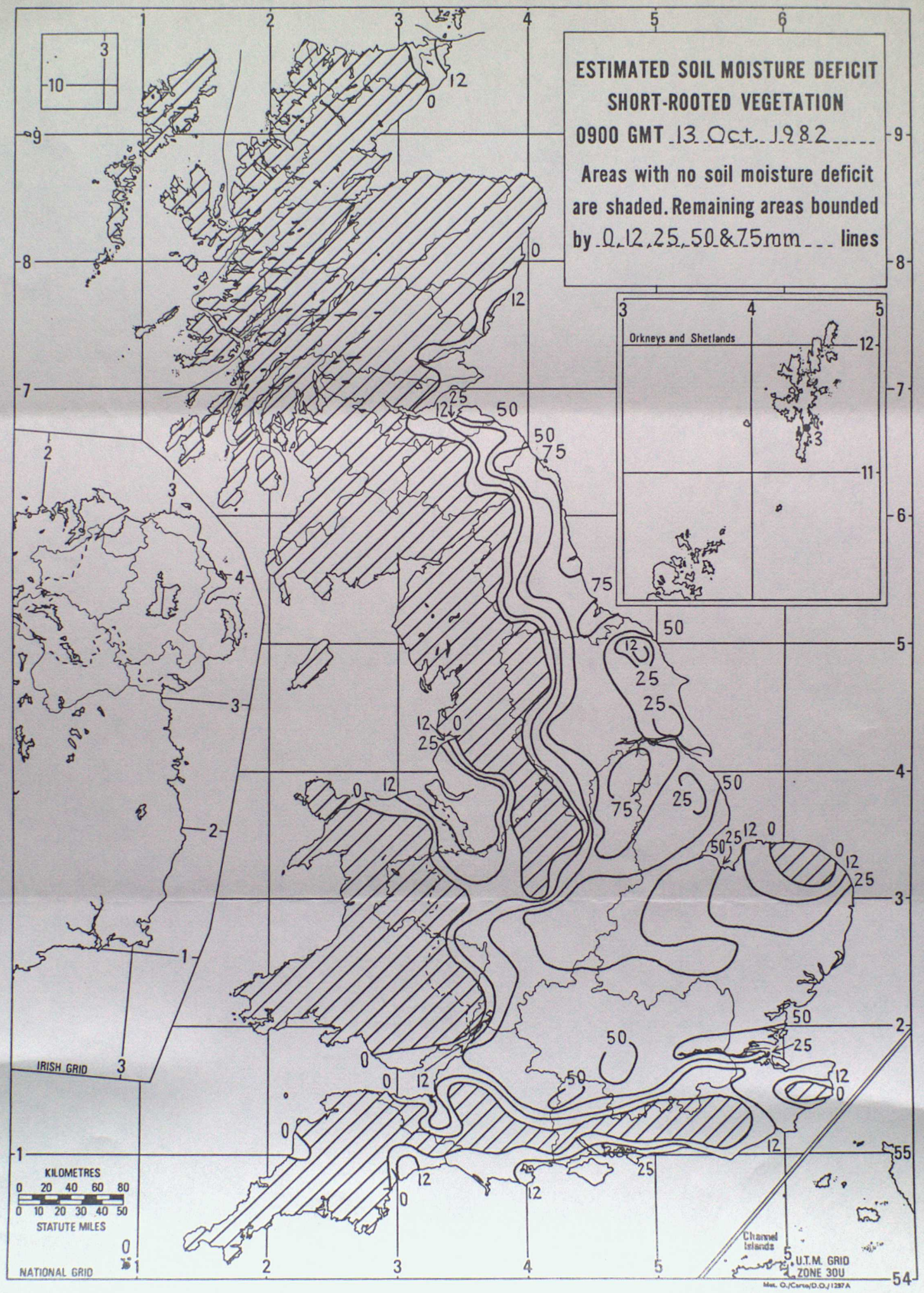
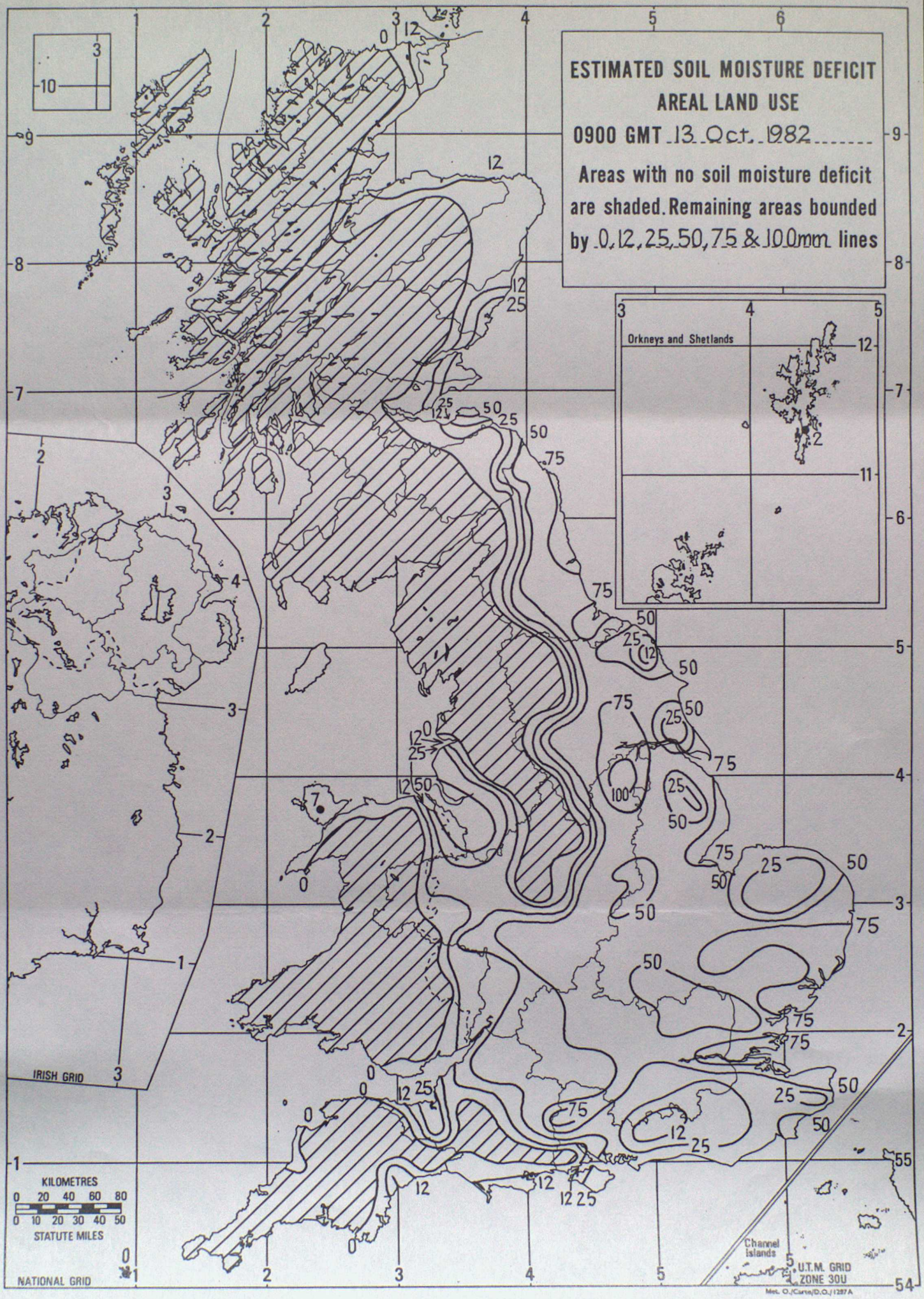
ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 13 OCT 1982

RIVER AREA	*AREAL LAND USE ESTIMATED S.M.D. mm	CHANGE DURING THE WEEK ENDING 09 GMT ON 13 Oct 82 mm	6 Oct 82 mm
NORTHUMBRIAN	53.7 (38)	- 8.0	- 7.3
YORKSHIRE	44.6 (44)	- 8.4	- 9.9
TRENT	36.6 (43)	- 0.5	- 11.6
LINCOLNSHIRE	59.7 (78)	- 8.6	- 22.5
WELLAND AND NENE	57.7 (67)	- 6.4	- 23.3
GREAT OUSE	53.8 (74)	- 3.5	- 31.9
NORFOLK AND SUFFOLK	39.3 (77)	- 20.1	- 46.3
ESSEX	69.8 (83)	- 19.2	- 14.6
LEE DIVISION	52.5 (68)	- 4.5	- 35.8
THAMES CONSERVANCY	47.1 (60)	- 6.7	- 28.2
LONDON AREA	51.0 (74)	- 6.8	- 37.0
KENT	44.4 (68)	- 18.5	- 45.1
SUSSEX	26.3 (57)	- 8.6	- 46.7
HAMPSHIRE	29.5 (62)	- 5.2	- 34.1
ISLE OF WIGHT	38.6 -	- 16.6	- 30.4
UPPER THAMES	57.9 -	- 9.5	- 23.3
AVON AND DORSET	34.0 (42)	- 9.4	- 23.4
DEVON	9.6 (41)	- 13.1	- 15.6
CORNWALL	2.1 (18)	- 2.8	- 5.4
SOMERSET	12.3 (35)	- 16.9	- 19.2
BRISTOL AVON	38.5 (42)	- 10.3	- 18.3
SEVERN	30.4 (45)	- 4.2	- 15.1
WYE	9.3 (23)	- 4.1	- 10.0
USK	4.9 (19)	- 7.9	- 7.4
GLAMORGAN	3.5 -	- 8.5	- 9.7
SOUTH WEST WALES	0.0 (11)	0.0	- 2.0
GWYNEDD	2.7 (10)	- 1.1	- 9.2
DEE AND CLWYD	18.3 (29)	- 1.5	- 10.6
MERSEY AND WEAVER	24.7 (25)	+ 0.3	- 8.6
LANCASHIRE	0.0 (15)	0.0	- 1.3
CUMBRIA	0.1 (18)	- 0.4	- 3.7

NB APART FROM NORMAL CHANGES THESE DIFFERENCES ALSO REFLECT RETROSPECTIVE ADJUSTMENTS AFTER RECEIPT OF ADDITIONAL DATA.

*Where available, the approximate average values of SMD for areal land use, for the time of year, are given in brackets.


ESTIMATED SOIL MOISTURE DEFICIT
SHORT-ROOTED VEGETATION
0900 GMT 13 Oct. 1982
Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50 & 75mm ... lines
Orkneys and Shetlands
Channel Islands
IRISH GRID
NATIONAL GRID
U.T.M. GRID ZONE 30U
KILOMETRES
0 20 40 60 80
0 10 20 30 40 50
STATUTE MILES
Met. O./Cartg/D.O./1257A


ESTIMATED SOIL MOISTURE DEFICIT
AREAL LAND USE
0900 GMT 13 Oct 1982
Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50, 75 & 100mm lines
Orkneys and Shetlands
IRISH GRID
NATIONAL GRID
KILOMETRES
0 20 40 60 80
0 10 20 30 40 50
STATUTE MILES
Channel Islands
U.T.M. GRID ZONE 30U
Met. O./Cartg/D.O./1287A