



METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL

EVAPOTRANSPIRATION OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 GMT ON 18 AUGUST 1982

The warm, moist, unstable air which brought thunderstorms to Great Britain at the beginning of the period gave way on the 6th to a mobile westerly airstream with depressions and associated frontal systems which brought unsettled weather to all parts as they moved rapidly from west to east across the area.

The wettest day generally over England and Wales during the period was 14 August with a general value of 9.8 mm when a frontal system crossed the country bringing showers to many places during the day and more prolonged rain during the night. The wettest day over Scotland was 6 August with a general value of 18.9 mm when storms were frequent in the Grampian and South Highland region and several hours of heavy rain fell in the Moray Firth area.

Among the highest 24 hour 0900 to 0900 GMT rainfall day totals for the last fortnight that we have so far received are:

- 49.5 mm on the 5th at Coningsby Met Office
- 52.4 mm on the 5th at Cranwell Met Office
- 52.8 mm on the 5th at Stornoway Met Office
- 40.3 mm on the 6th at Dalcross Met Office
- 59.3 mm on the 6th at Kinloss Met Office
- 60.1 mm on the 6th at Glenlivet
- 66.1 mm on the 6th at Lossiemouth Met Office
- 61.5 mm on the 12th at Merthyr Tydfil
- 59.8 mm on the 17th at Holme Moss Television Station.

We have also received several shorter duration heavy falls, among which were the following:

- 21.1 mm in 15 minutes at Waddington Met Office on 5th
- 51.9 mm in 6 hours at Cranwell on 5th
- 49.0 mm in 6 hours at Coningsby Met Office on 5th
- 52.9 mm in 12 hours at Kinloss on 6th
- 22.4 mm in 12 minutes from unofficial gauge in Reading on 6th

With the exception of parts of Eastern England most deficits are lower than they were a fortnight ago and many upland areas in the west have returned to field capacity. Approximate average values over river areas are now given on the table.

Director-General
Meteorological Office, Met O 8c
London Road
Bracknell
Berkshire
RG12 2SZ

Issued 19 August 1982

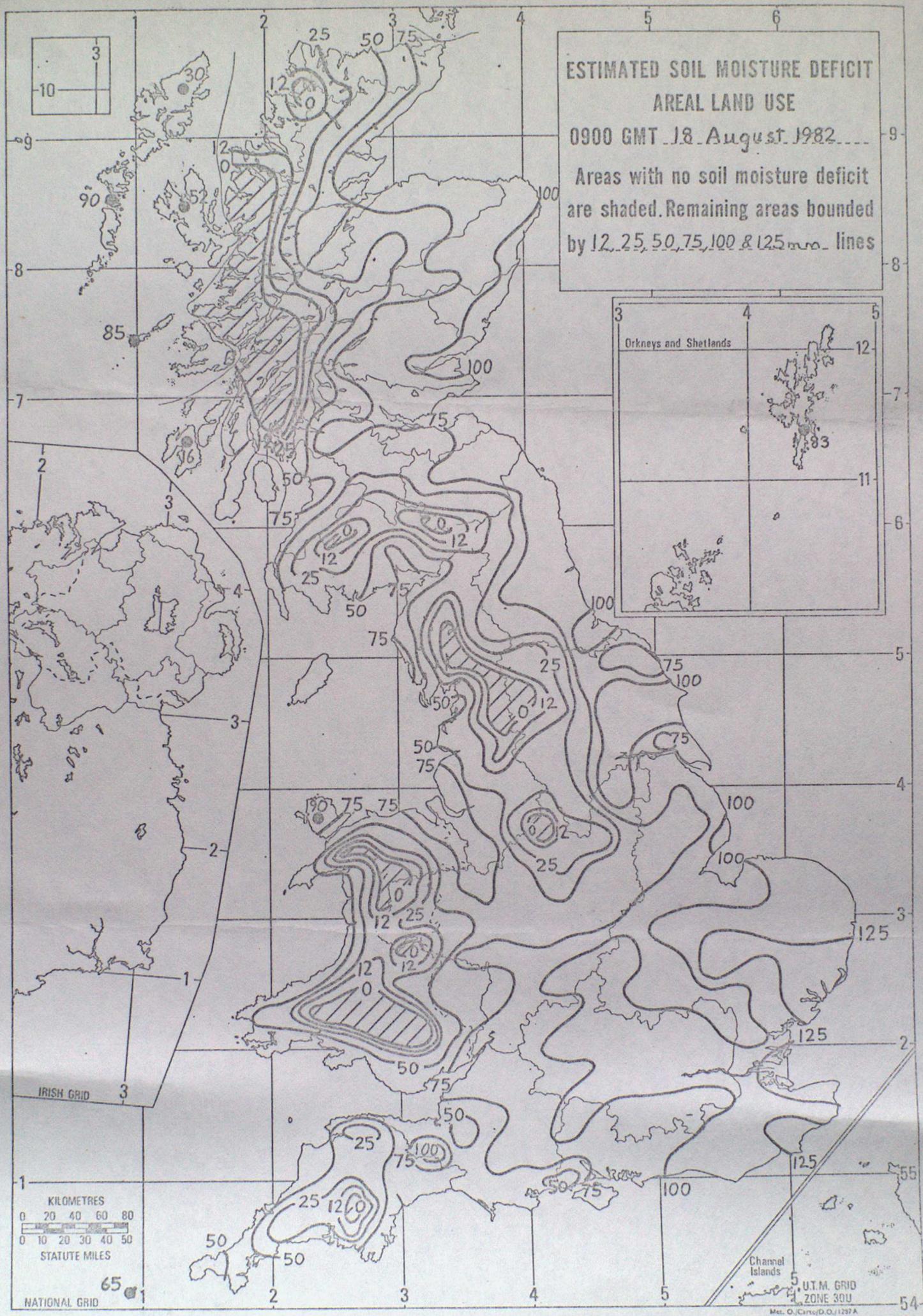
F42

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

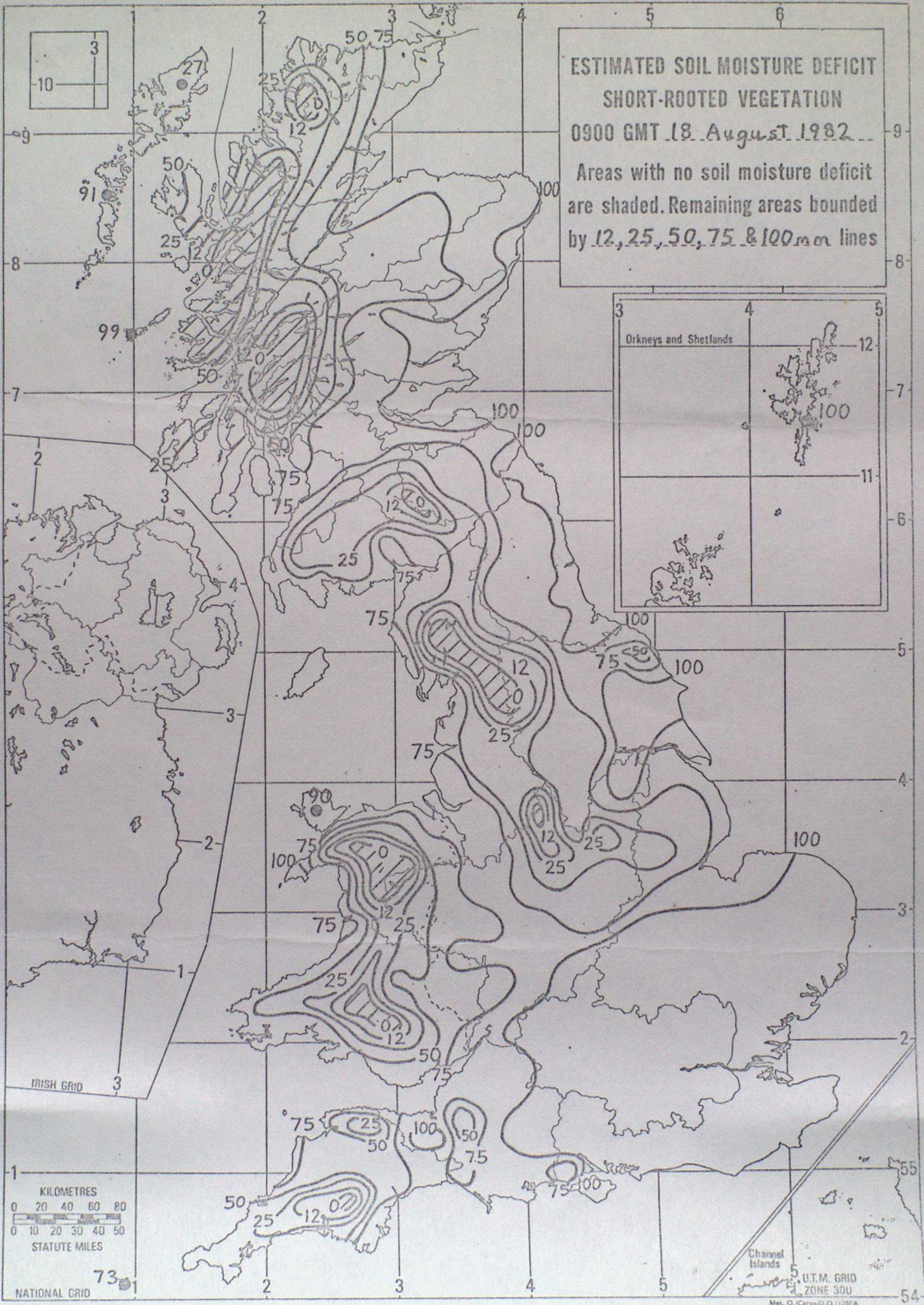
RIVER AREA	* AREAL LAND USE ESTIMATED S.M.D.		CHANGE DURING THE WEEK ENDING	
			18 AUG 82	11 AUG 82
NORTHUMBRIAN	75.7	(65)	- 10.0	+ 2.7
YORKSHIRE	61.9	(66)	- 15.0	- 5.1
TRENT	53.5	(63)	- 11.2	- 22.1
LINCOLNSHIRE	79.4	(87)	- 3.1	- 23.7
WELLAND AND NENE	90.7	(88)	- 3.2	- 14.2
GREAT OUSE	106.8	(92)	- 1.5	+ 2.9
NORFOLK AND SUFFOLK	110.9	(99)	- 6.3	+ 1.9
ESSEX	121.0	(105)	- 0.5	+ 1.9
LEE DIVISION	102.4	(94)	+ 2.5	+ 2.0
THAMES CONSERVANCY	92.4	(89)	- 2.1	+ 5.5
LONDON AREA	108.9	(101)	+ 1.8	+ 5.2
KENT	124.8	(99)	+ 0.1	+ 5.5
SUSSEX	108.7	(93)	- 2.2	+ 5.1
HAMPSHIRE	84.3	(97)	- 3.9	- 0.3
ISLE OF WIGHT	96.3	-	- 1.4	+ 6.6
UPPER THAMES	99.7	-	- 1.8	+ 6.3
AVON AND DORSET	83.0	(83)	- 0.6	- 2.5
DEVON	56.2	(76)	- 12.7	- 5.0
CORNWALL	29.5	(55)	- 21.2	- 1.5
SOMERSET	64.7	(71)	- 5.7	- 10.2
BRISTOL AVON	76.9	(74)	- 2.3	- 6.1
SEVERN	67.3	(70)	- 14.0	+ 1.9
WYE	57.6	(58)	- 29.7	- 0.1
USK	47.3	(53)	- 27.0	- 7.2
GLAMORGAN	44.1	-	- 18.5	- 11.6
SOUTH WEST WALES	41.4	(36)	- 33.8	+ 1.9
GWYNEDD	44.5	(37)	- 23.7	+ 1.0
DEE AND CLWYD	43.8	(57)	- 22.4	- 2.1
MERSEY AND HEAVER	53.5	(50)	- 25.8	- 3.4
LANCASHIRE	25.7	(41)	- 31.6	- 3.5
CUMBRIA	49.6	(49)	- 17.6	+ 0.6

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

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

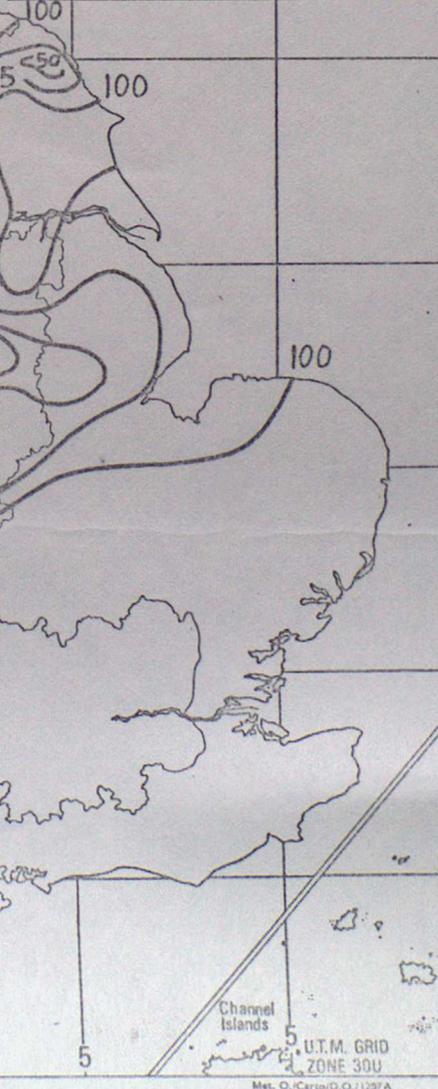
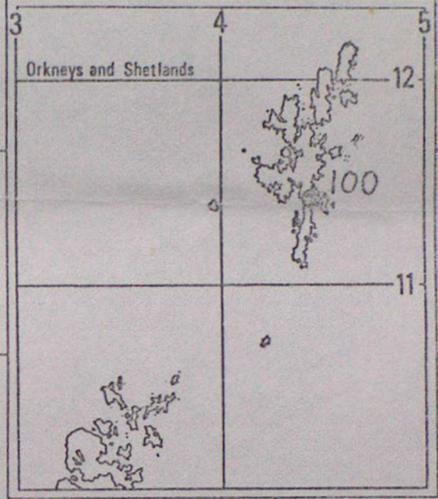


FH2



**ESTIMATED SOIL MOISTURE DEFICIT
SHORT-ROOTED VEGETATION
0900 GMT 18 August 1982**

Areas with no soil moisture deficit are shaded. Remaining areas bounded by 12, 25, 50, 75 & 100 mm lines



IRISH GRID

3

1

KILOMETRES
0 20 40 60 80

STATUTE MILES
0 10 20 30 40 50

NATIONAL GRID

73

Channel Islands

5 U.T.M. GRID
ZONE 30U

Mel. O.J./Carry/D.O./129FA