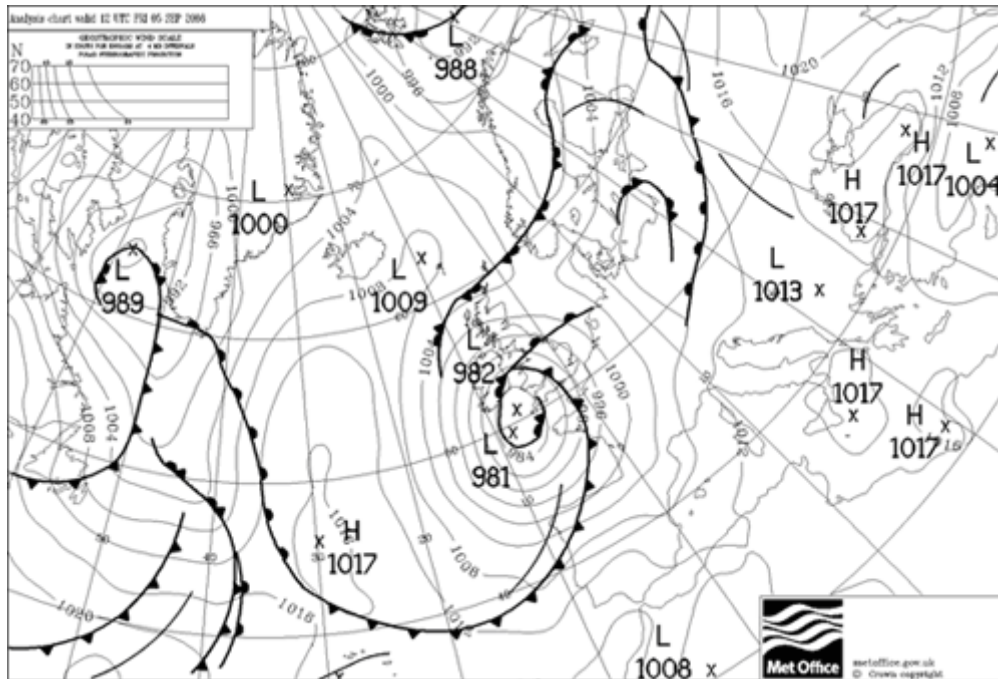


Heavy rainfall early September 2008

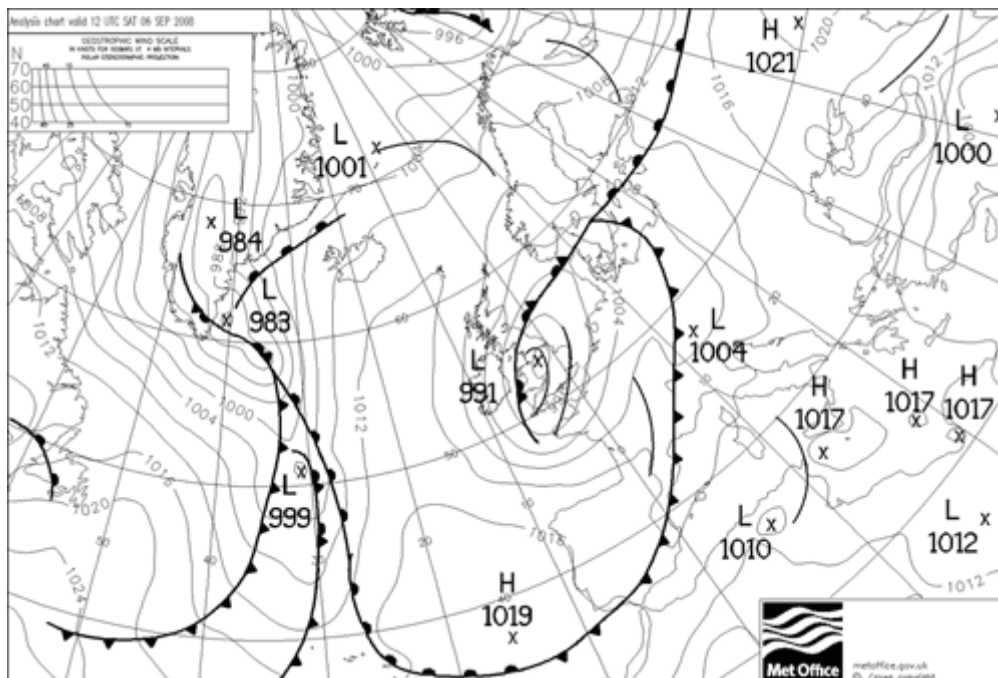
Prolonged rainfall resulted in flooding, especially in south Wales and north-east England...

An area of low pressure that moved slowly north-eastwards across the UK 5-6 September brought prolonged heavy rainfall to many areas, notably south-west England, Wales, the south-west Midlands and north-east England.

Synoptic situation at 1200 on 5 September



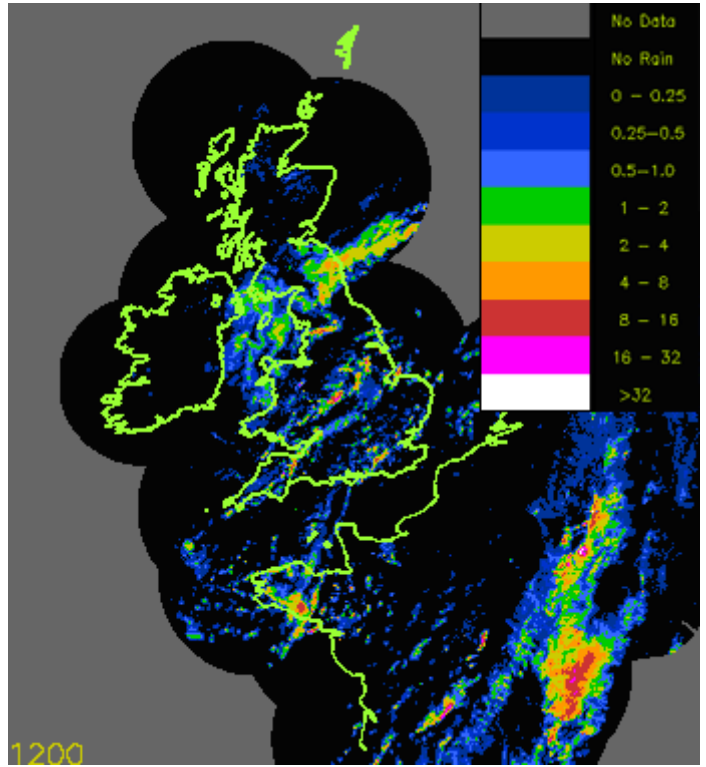
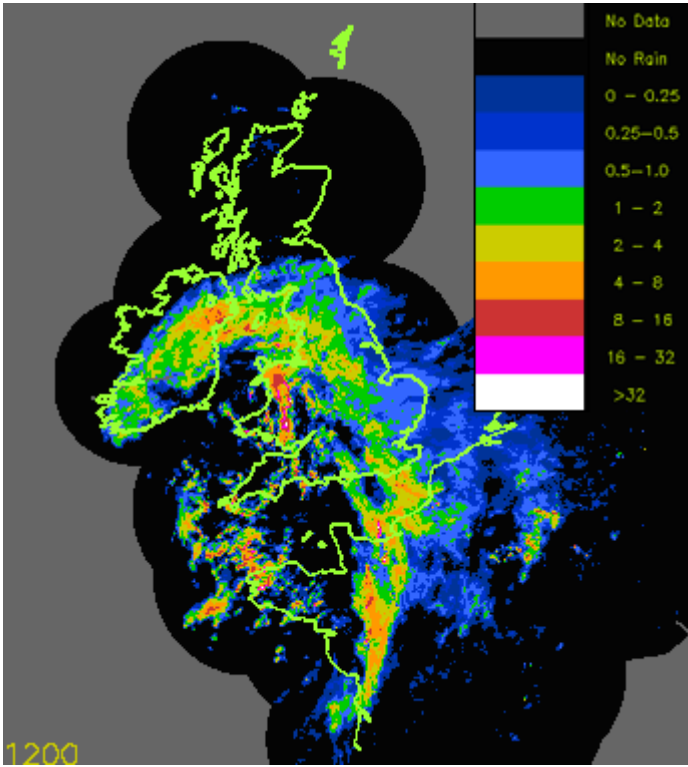
Synoptic situation at 1200 on 6 September



Shown below are the rainfall rates detected by the rainfall-radar network at 1200 on 5 September and at 1200 on 6 September showing how the widespread rain on the 5th had become mainly confined to north-east England on the 6th.

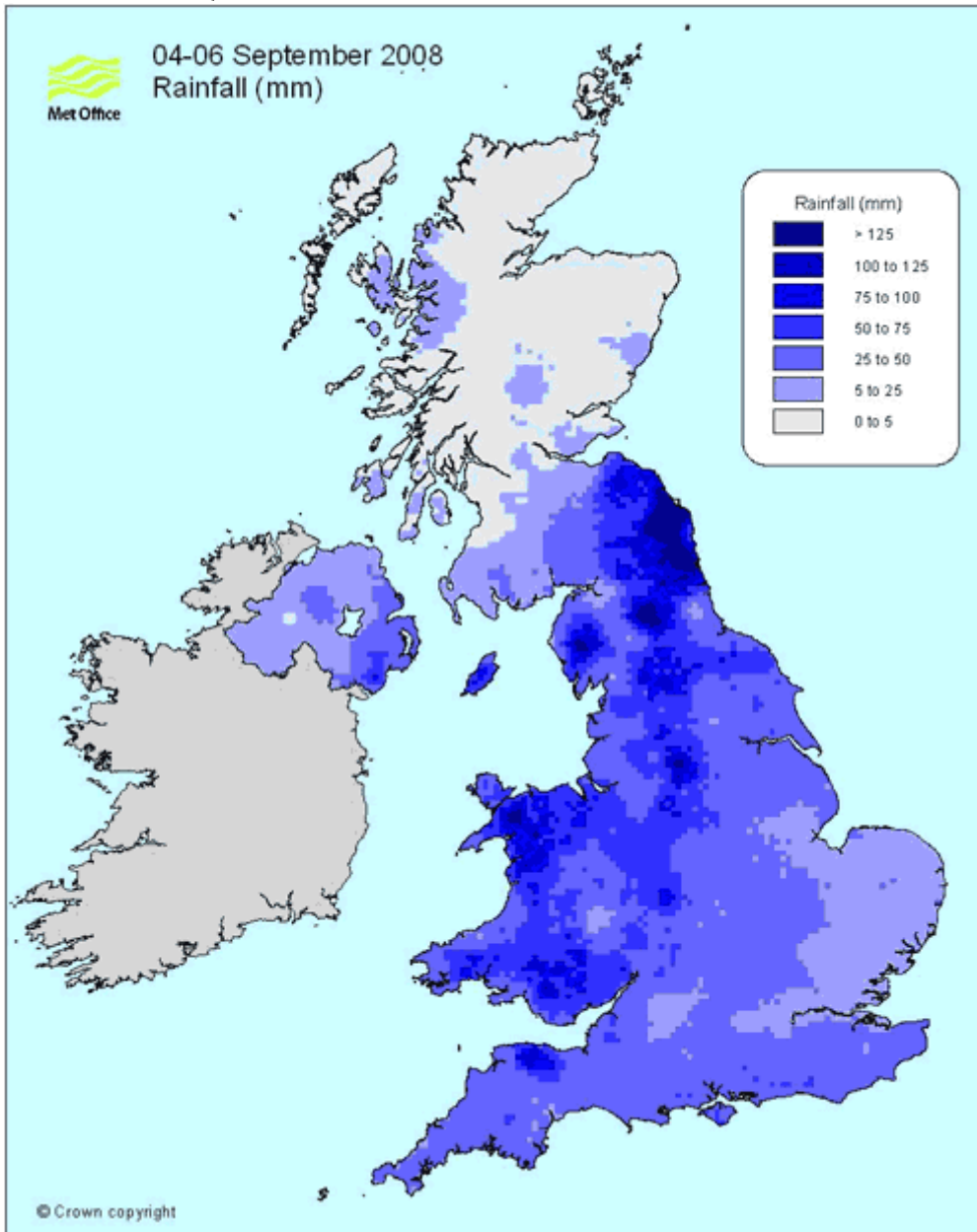
Rainfall intensity at 1200 on 5 September

Rainfall intensity at 1200 on 6 September



Twenty-four-hour totals in excess of 40 mm were reported widely from 0900/5th to 0900/6th and places in north-east England recorded over 100 mm in the 48-hour period 0900/5th to 0900/7th with a few totals over 150 mm. The totals for the three 'rainfall days' 4th, 5th and 6th (0900/4th to 0900/7th) are shown below.

Provisional 3-day rainfall totals



This rainfall followed well above average [rainfall in August](#) and an unsettled start to September. On the 5th, there was flooding of homes and businesses and transport disruption across parts of the south-west Midlands, south and mid Wales, particularly the south Wales valleys. On the 6th flooding affected north-east England, where the town of Morpeth in Northumberland was badly hit with some 1000 properties flooded.

The table below shows a selection of the rainfalls recorded on each of the rainfall days 4th, 5th and 6th with return periods for the highest 48-hour totals. The 3-day totals represent 50-100% of the September monthly average (for 1971-2000) in Wales and western England but 150-300% in parts of north-east England. The daily total of 80.7 mm at Morpeth (Cockle Park) on 5th is the highest recorded there in a record that begins in 1897, the previous record being 77.9 mm on 26 October 1900.

Rainfall 4-6 September 2008 with return periods and percent of monthly average

Weather station	Rainfall on 4th (mm)	Rainfall on 5th (mm)	Rainfall on 6th (mm)	Rainfall total 4th-6th (mm)	Return period (years)#	Percent of Sep average (%)
Chillingham Barns, Northumberland	0	76.2	82.1	158.3	>200	290
Morpeth, Northumberland	0.8	80.7	70.8	152.3	>200	235
Westgate, Durham	0.6	72.6	47.6	120.8	65	139
Albemarle, Northumberland	10.0	53.6	48.4	112.0	90	180
Capel Curig, Conwy	22.6	49.6	37.4	109.6	<1	48
Buxton, Derbyshire	14.8	72.2	13.8	100.8	15	99
Carterhouse, Borders	0	35.4	58.1	93.5	45	104
Liscombe, Somerset	32.8	49.2	3.8	85.8	<10	74
Nunraw Abbey, E Lothian	0	62.3	18.5	80.8	<5	111
Emley Moor, W Yorkshire	6.5	46.8	19.8	73.1	<10	116
Blencathra, Cumbria	2.9	48.0	21.2	72.1	<10	53
Shawbury, Shropshire	11.8	39.2	13.2	64.2	<10	106
Fylingdales, N Yorkshire	N/A	60.1	2.4	62.5	-	77
Boulmer, Northumberland	0	30.6	31.4	62.0	<10	117
Rhyl, Denbighshire	12.4	48.8	0.4	61.6	<10	83
Velindre, Powys	19.1	39.5	2.1	60.7	<5	73
Sennybridge, Powys	21.4	32.8	0.6	54.8	<1	43
St Athan, Glamorgan	7.4	33.0	4.8	45.2	<1	44
Filton, Bristol	13.6	17.4	12.0	43.0	<1	55

Return periods for highest 48-hour totals

This initial summary is based upon the data available so far and will be updated once values from the full network are received and checked.

Last updated: 29 October 2012