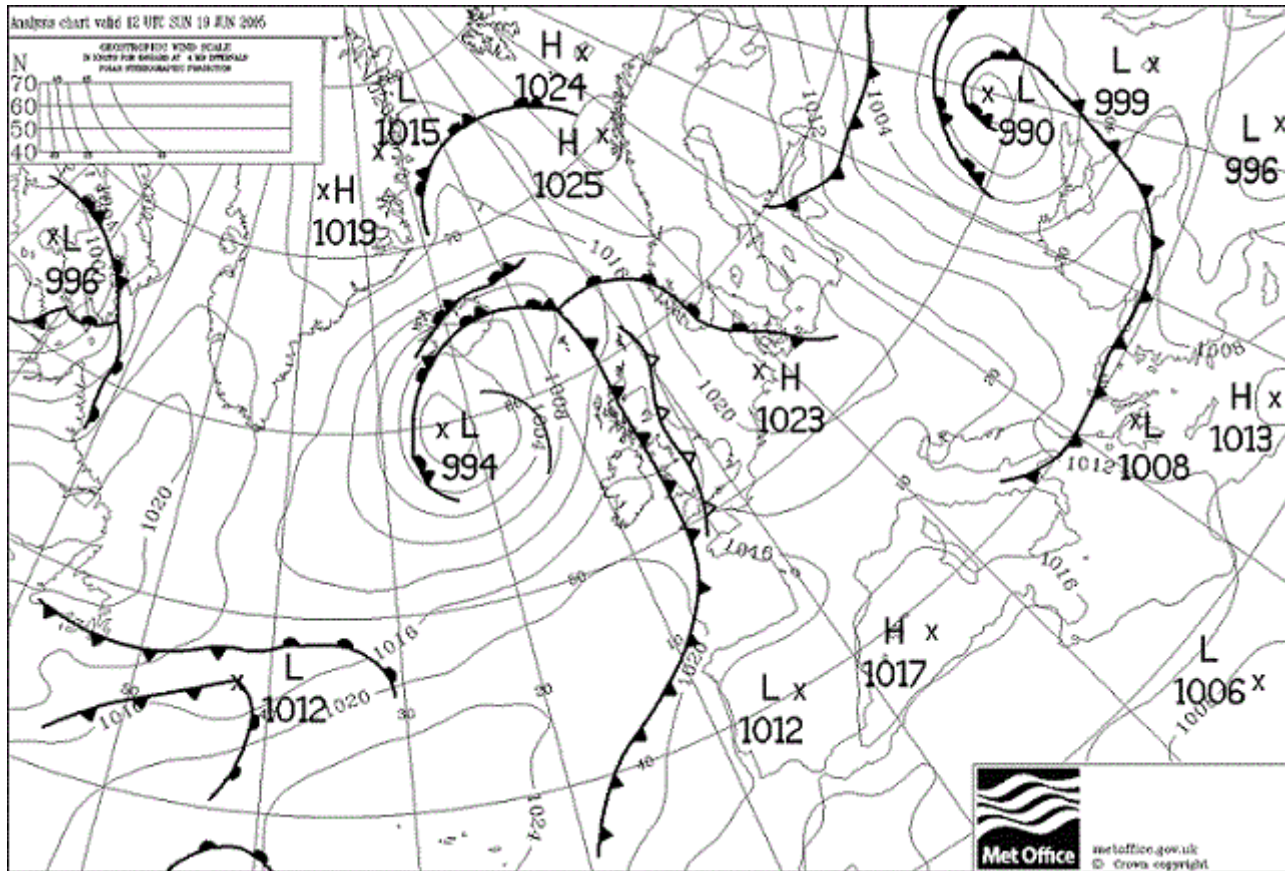


# Flooding in North Yorkshire - 19 June 2005

## Synoptic situation

Heavy and thundery downpours developed over north-west England and north Wales around midday, spreading across North Yorkshire through the afternoon. The worst-affected areas were around the North York Moors, with flooding being reported in Helmsley and surrounding areas.

Synoptic situation for 1200 GMT on 19 June 2005



## Rainfall information

The following information is provisional from both our real-time network and hourly data obtained from the Environment Agency (indicated by a \* in table below) on 20 June 2005.

From the station data available, Hawnby (north-west of Helmsley) has reported the most intense rainfall, including just over 50 mm in a 30-minute period.

The Hawnby 3-hour, 1-hour and 30-minute totals all generate return periods in excess of 200 years (using the Flood Estimation Handbook method).

### 19 June 2005 rainfall

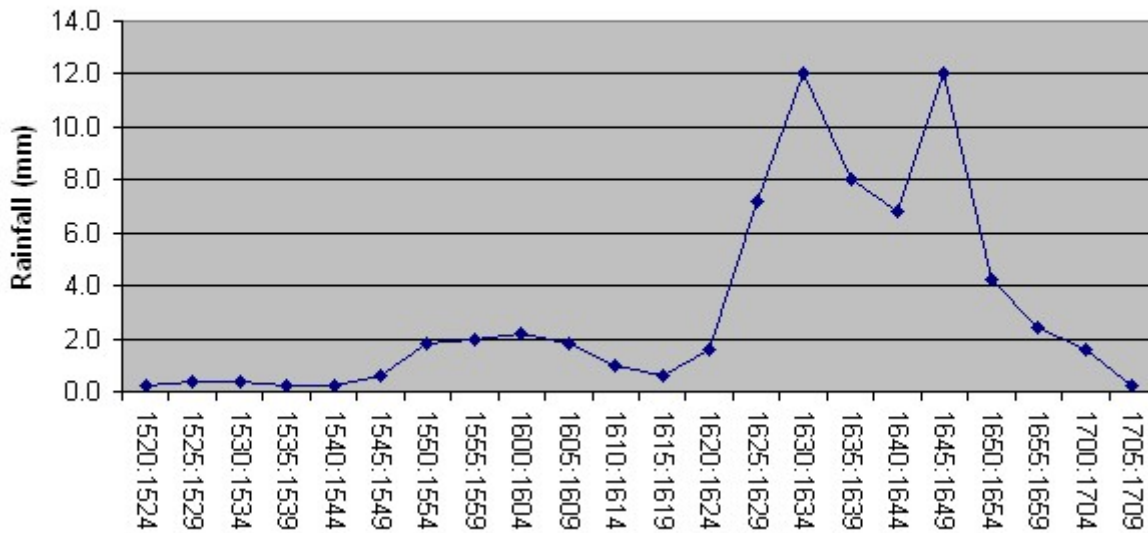
Station	Hour ending in GMT					Total rainfall
	15	16	17	18	19	
Hawnby (*)	-	5.8	<b>59.8</b>	3.8	-	69.4 (3 hr)
Church Houses (*)	-	0.6	<b>27.0</b>	16.1	0.4	44.1 (4 hr)
Topcliffe	0.2	7.4	<b>29.2</b>	3.6	0.0	40.4 (4 hr)
Westerdale (*)	-	1.8	<b>27.2</b>	7.0	-	36.0 (3 hr)
Brompton, Low Moor (*)	19.0	13.8	0.4	-	-	33.2 (3 hr)
Dishforth Airfield	0.0	6.0	16.4	3.0	0.0	25.4 (3 hr)
Osmotherley (*)	-	12.0	9.2	1.0	-	22.2 (3 hr)
Lockwood (*)	-	1.0	15.8	4.8	-	21.6 (3 hr)
Hawarden (N Wales)	<b>30.8</b>	10.8	1.2	0.0	0.0	42.8 (3 hr)

The [UK record](#) for a 30-minute period is 80 mm at Eskdalemuir, Dumfries and Galloway, 26 June 1953.

More-intense rainfalls have been recorded in North Yorkshire. For example, on 10 August 2003 (date that the UK temperature record of 38.5 °C was established), an intense rainstorm was recorded at Carlton-in-Cleveland (North Yorkshire). A total of 49.1 mm was recorded in 15 minutes, 45.9 mm in 10 minutes, 41.3 mm in 8 minutes and 30.0 mm in 5 minutes (information taken from a detailed report produced by the observer at the station, available in 'Weather', Vol. 60, March 2005). Carlton-in-Cleveland, reported 27 mm in 30 minutes during the 19 June 2005 event.

Tip-time data have been received from the Environment Agency for Hawnby, and has been plotted in 5-minute intervals below.

## 5 minute Rainfall totals from Hawnbly (EA gauge)



### Radar imagery

Initial analysis of 5 km radar data, indicates that some points may have had over 100 mm in just 3 to 4 hours.

Please note: The empirical relationship between radar reflectivity and rainfall rate is fixed whereas in reality this is highly dependent on precipitation type and is very different for rain and hail.

Last updated: 6 November 2012