Yorkshire Swale flood history 2013

Sources

The greater part of the information for the River Swale comes from a comprehensive PhD thesis by Hugh Bowen Williams to the University of Leeds in 1957. He in turn has derived his information from newspaper reports, diaries, local topographic descriptions, minutes of Local Authority and Highway Board and, further back in time, from Quarter Sessions bridge accounts.

The information is supplemented by various conversations which Williams had with farmers who owned land adjacent to the river. Where possible the height of the flood at the nearest cross-section of the place referred to in the notes is given. This has either been levelled or estimated from the available data. Together with the level above Ordnance Datum (feet) and the section in question there is given (in brackets) the height of the flood above normal water level. Information is also included from the neighbouring dales (mainly Wensleydale and Teesdale) as this gives some indication of conditions in Swaledale. Williams indicates that this is by no means a complete list, but probably contains most of the major floods in the last 200 years, together with some of the smaller ones in the last 70 years.
<table>
<thead>
<tr>
<th>Date and sources</th>
<th>Rainfall sources</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Sep 1673</td>
<td>NRQS</td>
<td>Spate carried away dwelling house at Brompton-on-Swale. Burnsell Bridge on the Wharfe was washed away. Selseth Bridge in the Parish of Ranbaldkirke became ruinous by reason of the late great storm.</td>
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<tr>
<td>? Jul 1682</td>
<td>NRQS Speight(1891)</td>
<td>Late Brompton Bridge by the late great floods has fallen down.</td>
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<tr>
<td>19 Dec 1683</td>
<td>NRQS</td>
<td>Bridge at Brompton-on-Swale was damaged. Repair of Reeth Bridge held up by further breaches due to violent floods of the winter. (April 1684 Quarter Sessions).</td>
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<tr>
<td>1697</td>
<td>NRQS</td>
<td>Letter written by Philip Swale of Hartford, Nr. Richmond, to a friend on the above date, mentions that the waters of the River Swale ‘were that morning very great’. Whereas this court is informed that great damage is done to several bridges by this winter's floods and ice. The county is to repair them. (January 1698)</td>
</tr>
<tr>
<td>25 Jun 1701</td>
<td>NRQS</td>
<td>Ordered £20 for the repair of Grinton Bridge. A cloudburst on the hills above Grinton, the like of which only seen once before, carried away several houses, the stone bridge over Grinton Beck, and endangered the County Bridge over the Swale.</td>
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<tr>
<td>2 Feb 1732</td>
<td>Clarkson(1814)</td>
<td>2’6” lower than the flood of 1753(as measured at Brompton-on-Swale .-. 218.8 at west end of village (8.8).</td>
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<tr>
<td>17 Jan 1753</td>
<td></td>
<td>Swept away Mr. Yorke’s walks, destroyed his new improvements, swept away one and a half houses and part of the road at the west end of Brompton. Went quite through the village. Brompton Bridge and most of the turnpike road and the river bank was washed away. .-. 223.3 at the west end of the village. Water level approximately 210.01.</td>
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<tr>
<td>16 Nov 1771</td>
<td></td>
<td>The River Tees rose in parts 15 feet above normal level.</td>
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<tr>
<td>16 Nov 1771</td>
<td></td>
<td>Late rains to the North of York have swollen the River Ouse to an uncommon height, it being higher than for</td>
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some time past. Reports from Durham - water fully 8 ft. higher than before. Report from Richmond - damage about Richmond terrible there having been the greatest flood known in that part. Most of the bridges between that town and Sunderland were carried away.

Bill for payment of labourers for new cut at Catterick Bridge, filling about the pillars, and turning the river.

Advertisement for Reeth Bridge, Grinton Bridge, Barnard Castle Bridge, Marske New Bridge etc. by late flood carried away or otherwise damaged. Bill for repairing the east end of Skipton Bridge. Temporary Bridge over the Swale near Marske. Sum £18.0.9d. paid for repair to Reeth Bridge.

Perhaps the greatest flood for many centuries in Teesdale was that of 1771, when the river was said to have risen 20 ft. higher than the height remembered by oldest inhabitants. (DST of Feb 9, 1957).

Entry in John Parker's Diary at this period. (He lived in Swaledale.) 'Greatest flood ever known in memory of man. Several bridges carried away'.


The flood went over Earl Orchard, Mr. Yorke's ground, surrounded the Castle Mill running betwixt it and a dwelling house. 332.5 at MS 23 (18.3).

Castle Mills (near Catterick) - since the last flood of 1771 the Swale has been making such rapid advances as to flow immediately under the bottom of the east aide. Prior to the flood the river ran 120 yards further to the east. - -. say 149.0 at SS 10 (7.2)

Fall of snow not deep, the following day a gentle thaw and west wind. In the evening a violent wind with heavy rain brought the greatest flood ever known (except that of 1771) by "the oldest inhabitant".

Entry for 12th December - 'a great flood'.

Entry for 25th April - 'A fine warm day. About 3 o'clock a thundercloud arose in the South West and thundered for near three hours without intermission. Then the most terrible storm of hail ever seen here fell 4-5 inches thick. Many of them, 3 inches in circumference of near solid ice, broke many windows, and in one hour there was one of the greatest floods ever known'.

Entry for 4th May - 'Clearing wreck of trees'.
2 Feb 1822
Garth Day
Books

Yorkshire Gazette

One of the greatest floods ever known, swept away the bridge over Gunnerside Beck, and filled up the beck. It broke most of the fences down along the bottoms. Water into our carthouse at Dubbingarth Hill and Burbler Cowhouses.

Lands adjoining the River Ure have suffered much damage due to the sudden and rapid flood of last Saturday (2nd).

13 Jul 1828
Garth Day
books

11 Mar 1835

29 Jul 1836
Newcastle journal 6 Aug 1843
Westmorland Gaz. 25 Nov 1852
Yorkshire Gazette 10 Jul 1864
BR (York Herald)

Thunderstorm

Richmond and neighbourhood were visited by a fearful thunderstorm. The destruction of cattle and crops has been considerable. In many cases the whole surface of the soil in fields with corn and turnips has been swept away by the vast floods that continued for nearly two hours.

In consequence of the heavy rain on 21st and 22nd the river in the vicinity of Sedbergh [Rawthey, tributary of the Lune] was higher than has been known for a good number of years. The mail between Northallerton and Sedbergh was compelled to come by way of Catterick because of water 7 feet deep on the road at Morton on Swale. The flood entered a few houses of parties near the river.

Mr. Lister, Topcliffe Mill: 'The flood occurred in early 1820s and was higher than in 1947, for it flooded the Mill House'. Floor level of house 65.3.

The greatest flood ever known at this season. The Swale broke several banks and destroyed most of the meadows at the bottoms. Isles Bridge damaged - a wooden bridge at this time.

Great snow, thaw and flood. Three of William Harker's carts were carried down the Swale; two horses were drowned and 'Nancy Will' (a driver) from one of the carts, was drowned too.

A man was killed by lightning at Catterick. He was working in a field and it is assumed the lightning was attracted to his scythe.

‘The higher part of the Swale Valley was visited by a thunderstorm of unparalleled fury on Monday afternoon accompanied by rain. From the great volume of water which poured down the river, it is believed a waterspout must have fallen. The locality of the storm is about 15-20 miles above Richmond in the neighbourhood of Hurst bordering on Westmoreland. The Swale rose within a few minutes to the height of several feet. The sudden accession of water caused a great amount of damage. Riverbank trees were washed away and sheep and pigs were caught by the flood and borne a distance of several miles. Great numbers of people assembled at Richmond to notice the unusual spectacle. Part of the road between Barnard Castle and Arkendale was washed away and stone and wooden bridges were borne down. No loss of life was reported though there were several narrow escapes’.
The Swale became suddenly swollen to a degree not paralleled in living memory. The river carried much debris and at Richmond the bridge was for a while almost dammed up with trees. Pigs and sheep were seen carried past. Some boys who were swimming in the river had only just time to escape, with one not having enough time to collect his clothes. The road between Arkendale and Barnard Castle is partly washed away. Some flooding was reported in Reeth.

Some of the same information as above. The water rose in a few minutes to a height of several feet. Accounts from Lancashire and Yorkshire state that heavy rain of the last few days has caused serious floods.

By recent rainfalls, flood considerable at Boroughbridge and at Aldborough (near Swale Nab). The Tees was flooded to an extraordinary extent at Barnard Castle.

Entry for 15th November? 'A wet day'. Entry for 16th November: 'Attendance small; it being very stormy'.

This seems like an isolated event. No high totals were noted elsewhere on that day.

Widespread thunderstorms in the NE;

Thirsk: A woman was killed and her 2 children injured by lightning.

Richmond: The thunderstorm lasted 2 hours. In some parts of the town the paving stones were all washed up and the sand was so thick it was taken for building purposes. Animals were killed and buildings struck and a man injured by lightning.

Ripon, Brompton, Northallerton: Severe storms were reported but no flooding was noted. A woman was killed at Brompton. Cattle and lambs were killed by lightning.

Richmond affected by a severe thunderstorm where the heavy rain flooded streets and houses in the lower part of the town.

Thirsk was hit by heavy rainfall and dwellings were flooded by the rush of water. Nine sheep were killed by lightning and a house struck and damaged. Potatoes and turnips were washed out of fields.

Ripon: 18 sheep were killed by lightning (no mention of flooding).

Narrow escape from Drowning at Richmond: After a severe thunderstorm the River Swale began to flood.
angler and a lot of youths had a narrow escape. They were fishing at the force when the river came down. The lads got to the embankment in time but the angler was overtaken when in the centre of the rocks. He was up to his neck in water in very quick time and had a desperate struggle to get to the shore.

18 May 1878
York Herald
20 May
Thunderstorm
Richmond: The streets were completely flooded.
Thirsk: The hail caused whole scale destruction of glass and garden crops. Heavily laden plum trees were stripped of their fruit. Hailstones were as large as marbles and some were an inch in diameter. Windows were smashed and blown all over the town. The grates of the town were speedily blocked and houses were flooded. The western windows of the Mechanic’s Institute were broken. At Sowerby the destruction of glass was even more complete than at Thirsk – also at Feliskirk, Thirby and Sutton under Whitestonecliffe.

15 Nov 1878
DST
This was the record flood at Thirsk, when water invaded the Market place from Finkle Street for a distance of 12 yards. (DST Edition of 26th July 1930).

28 Dec 1878
DST
The thaw continued on Monday (28th), though rivers at Northallerton were not as high as the break up of the last storm. At Richmond the Swale overflowed its banks in many places, doing some damage to farms. Massive blocks of ice were floating down the river.

27 Oct 1880
BR
Richmond 2.70”

9 Mar 1881
DST
Yorkshire Gazette
Reeth School Log Book
Early on the Wednesday evening (the 9th) the river broke the banks at Langton and Scruton, overflowing many thousands of acres. At 2 o’clock on Thursday morning the river was flowing over the railway line. It washed away a 1/4 mile of the embankment a little below Morton Bridge. -. 97.1 is the level of the sleepers at the railway bridge (20.0). At Richmond the flood was the largest for years but there was not much damage. On the 19th the water was still several feet deep on the land near Ainderby and Morton, and at Thrintoft several fields have had the whole of the topsoil washed away.

All communications between Bedale and Northallerton were cut off by water flowing across the high road near Morton Bridge on Tuesday and Wednesday. -. 94.0 (20.6).

Rapid thaw and heavy rain made roads almost impassable on Monday and Tuesday (7th and 8th).

Mark on the Town Hall in Yarm Square on the River Tees is 10 ft. from the ground.

5 Jul 1881
Northern Echo
7 Jul
Widespread thunderstorms
Richmond: Some houses were damaged by lightning. The rain was not so very heavy but the River swale and becks overflowed their banks
Thirsk: severe thunderstorm but no flooding reported. A horse was killed at Kirkby Wiske.

29 Jan 1883
At Richmond the flood came down early in the morning. All the flatts were flooded at Applegarath. Fires
extinguished at 3 o'clock in High Paper Manufactory and residence of James Cook had 4 ft. of water in it. (Just downstream of paper mill.) - . 350.0 (15.7) The old bridge was within a yard of being overflowed - . a yard from top of the arch is 333.9. The river ran on a level with Earls Orchard Walk opposite the castle. - . 331.0 at MS 23 (16.8). Fields below the flour mill were completely covered. Easby allotments were not visible, whilst the inhabitants of a cottage at Easby allotments had to escape by a rear window. - . 295.0 at MS 19 (12.0) Roads near Catterick level crossing were flooded and impassable. - . Low point on road 204.0 (14.0) Bridges of Gunnerside, Low Row (Isles), and Scabbawath were partially washed away. Low Row and Feetham bottoms were a perfect wreck, water having broken in at Isles Bridge. The railway bridge at Morton was washed away. Two men who went onto the banks at Scruton were surrounded for 24 hours. - . 15 ft. above water level at Y.O.R.B. 236-239. At Pickhill the Swale overflowed its banks inundating hundreds of acres of land. At Howe Mr. Kirke imprisoned in house, as it was surrounded by water. - . approximately 76.0 (14.5).

The gale which commenced Thursday night continued with more or less violence until Sunday evening. Ponds of the High Paper Manufactory were one mass of water. - . 352.0 at MS27 (16.2). Boroughbridge (on the River Ure) was visited by one of the most severe storms since 1822. In Swaledale there is computed to be over one thousand tons of debris on each acre of land in places.

Gunnerside Bridge was severely damaged after standing forty-six years. (The first shaky wooded bridge having been replaced in 1835.)

Mr Sunter, Healaugh. 'Flood came after snow storm and frost, all the bottoms were covered with water. Sand and gravel covered the fields.' - . say 606.0 at MS 73 (10.4). According to a local inhabitant this was the heaviest flood since 1822, the water being 6 ft. deep in some houses at the low end of the town.

The road at the low end of Reeth was 4 ft. deep in water. - . 605.0 (8.4 ft. above normal level at Reeth Bridge). Whole of low ground in the valley was flooded, the Swale and Arkle joining at Reeth Bridge.

Mr. Gill, Cogden Hall, Grinton: "The flood washed away the wall on the right bank by the gauging station" - . say 567.0 (10.0).

Garage hand at Richmond Old Bridge: 'Big flood was approximately 16 ft. high on existing gauge board.' - . 332.5
Mr. Metcalfe, Saw Mills, Richmond: "The flood occurred in the spring when it had been raining for three or four days with the wind from the east. The wind swung round to the west and a sudden thaw caused the flood. It came at 7 o'clock in the morning rising quickly in one hour, and flooding into the stable doors of the saw mill. It reached within a few yards of the style downstream of the Mill -. 316.5. It also washed the end off the old flour mill at the waterfalls, there being 3 feet of water over the weir on the waterfall (it was 1-2 ft. higher at that time') -. 317.5 approximately. (4.4) 'The flood came up to the lane at the bottom of the churchyard and just reached the house by tlie river.' -. 315.6 (26.4). 'Whilst a hundred yards of road was washed away at Brompton-on-Swale'.

Mr. Metcalfe, retired highways engineer, Richmond: 'In 1930 when the new houses were built at Catterick village, an old road hand told of a flood which covered the land on which the houses were being built fifty years before.' -. say 172.0 at SS.11. (9.7)

Mr. Metcalfe, Kiplin Mill, Great Langton: His mother used to tell of a flood coming into the house. -. Floor level 124.5, flood say 125.4 (9.0).

DST edition of 13 June 1914: This flood is mentioned as having run level with Richmond Railway Bridge -. top of arches is 317.7 (29.5); and also level with the railway iron bridge at Easby. -. underside of bridge is 23 ft. above normal water level.7

Mr. Body, Allotments Lane, Catterick: 'There is an old story of water coming out at Catterick Bridge and flowing down the North Road.' -. say 200.0 at the bridge. (10.0)

DST edition of January 10th 1925: At Morton the 1925 flood was the worst since 1883 on which occasion water flowed along the Bedale Road not far from Cross Lane Ends and Morton Stone Bridge Parapets were covered, whilst the railway bridge was so undermined that it had to be rebuilt. -. 100.3 lowest point of stone parapets. (23.4).

6 Jul 1884
Yorkshire gaz
7 Jul

Thunderstorm in the Northallerton area which caused road flooding and killed a number of cattle and struck the Railway Works 'doing much damage'.

A meeting of the Richmond Highway board considered compensation for the devastating flood in Swaledale [no date mentioned]. The Brompton on Swale road had been washed away for a quarter of a mile. Sheep were killed near Richmond.

On 13 July a thunderstorm was reported at Ripon accompanied by large hailstones and a strong wind breaking
many glass panes and causing flooding of streets.

12 Aug 1884
Yorkshire Gaz

Severe thunderstorm with large hailstones up to 1 ½ ounces at Northallerton

One man killed by lightning at Little Langton (NW of Northallerton). Great damage to glass and standing crops; cattle were killed and houses struck. A violent thunderstorm was also reported in the Richmond district.

A severe thunderstorm was reported in Swinedale and Arkengarthdale.

Morpeth Herald 16 Aug

[Another man was killed at Ormesby near Middlesbrough] See also Rye chronology.

A thunderstorm in the Richmond area killed a mare at Richmond which had sheltered under a tree.

21 Jul 1886
Yorkshire Gaz

A thunderstorm in the Richmond area killed a mare at Richmond which had sheltered under a tree.

24 Jul

Richmond: The thunderstorm caused the complete flooding of the streets.

Storns were also reported at Northallerton and Middlesbrough but without flood damage.

29 Sep 1887
York Herald 30 Sep

Richmond: A thunderstorm caused most of the streets to be flooded. Sand and large stones had been washed down from the hills and had to be carted away.

9 Jun 1888
Yorkshire Gaz

Richmond: A thunderstorm caused most of the streets to be flooded. Sand and large stones had been washed down from the hills and had to be carted away.

25 Jul 1888
DST British Rainfall

On Wednesday night one of the biggest summer floods ever known swept down Swaledale. Rain had fallen for days past west of Richmond and at and about 5.0 p.m. on Wednesday a sudden and unexpected flood rushed down Arkengarthdale and the upper reaches of Swaledale. Most of the walls on the flatts were washed away, and many hundreds of acres were under water. Three wooden bridges in Arkengarthdale were washed away, and houses at the low end of Reeth were flooded. .-. 600.0 (3.4 above normal level of Arkle Beck.) Most of the low lying meadow land was filled with sand and stones. Rain was incessant on Wednesday morning, so that by noon all the water courses had 'come out'. At 4.0 p.m. a terrific downpour, which must have commenced in the higher reaches of the dale, began to move eastwards; the river now being bank high. Fields at Low Row were soon breast high in water. .-. 652.0 at MS 85 (8.4). A raging torrent crossed the approach road on the north side of Isles Bridge. The bridge over the Swale at Gunnerside had one arch washed away at 6.00 pm after which the water seemed to abate a little; but at 8.0 p.m. another 'fresher' came which swept away the remainder of the bridge.

BR Observer at Aysgarth refers to flood owing to thunderstorm up the dale and (about 3" fell at Hawes junction)

The Swale was flooded to one of the largest since the memorable one of 1883. The water as it roared over the falls at Castle Paper mills was imposing and the end of the paper mill seemed in imminent danger of being swept
away again. There was much floating debris of trees and posts. Gunnerside bridge which was a victim of the flood of 1883 and rebuilt was swept away again and a bridge at Whaw which crosses the Arkle Beck. Pastures were flooded and pigs and other animals washed away including some below Richmond. An Arkengarthdale correspondent wrote that the river rose rapidly in a few hours. At Whaw three houses were flooded to three feet. The river has swept away most of the footbridges and waterside fencing. A Grinton correspondent wrote that they had heavy rain over the previous few days but on Wednesday it seemed it would never cease. In the afternoon there was thunder and at 3 pm the Swale and Hartle beck rose very quickly. ‘It is thought that a waterspout must have broken further up the dale as the water rose so quickly. Ayles bridge has been damaged. All traffic was stopped between Reeth and Grinton.

The wooden bridges at Punchard, Seel houses and Escliffe were all washed away. Houses in the low end of Reeth were flooded. The wall at the high side of Reeth Bridge was washed away. At Hawes the River Yore overflowed its banks and a stone jetty was carried away leading to the flooding of the Hardraw pastures. A number of cattle were drowned.

7 Aug 1889
Epworth Bells
10 Aug

<Hawes>: In a violent thunders storm houses in the lower part of the town were flooded. Gayle beck has not been so high in the last 20 years and was as high as in the disastrous flood of last year. Hundreds of acres are submerged with great damage to hay crops. A large number of wooden bridges, trees etc floated past. The cricket field is covered and the contents of the club house are washed away.

25 Jan 1890
Bogg
DST
Yorkshire Gaz.
1 Feb 1890

British Rainfall has no record of heavy falls either for the day or shorter period for this flood event.

Gunnerside Bridge swept away in ‘the great flood’.

On Saturday morning (25th) the river began to overflow at daybreak and by 10 o’clock the embankments had burst in several places, whilst the bottoms were under some feet of mater.- At Isles Bridge, the river broke over the bank and cut a deep channel through the road, at the south west side of the bridge. The approach walls to Scabba Wath were washed away, as in 1833. At Brompton there was encroachment of a further three yards.

Gunnerside Bridge, having only been built three months, was washed away again.

J. T. Rutter, Gunnerside. He was born in 1884 and this was the worst flood in his memory. The flood came up to the second cow byre from the bridge, having broken through at Marble Scar. ⚗️ 726.0 on the road. (24.1).

British Rainfall

Heavy rainfall in Swaledale, a new bridge at Gunnerside washed away and others damaged, cattle sheep and large trees carried down the stream
Richmond: A thunderstorm flooded the streets. The hailstones were very large and the streets were completely covered in places.

A thunderstorm of long duration passed over Richmond and Swaledale. Rain was accompanied by large hailstones and a waterspout was seen. An army camp was struck and some injuries were sustained as well as sheep killed.

Thursday's storm (1st) was by far the largest since 1883, (says the report from Richmond.). All through the week there was wet and tempestuous weather which culminated in a terrific overnight storm, abating at about 4.0 a.m. on Thursday; soon after this the flood came reaching its peak at 10.0 a.m. Richmond Castle Paper Mills were stopped through the fires being extinguished. .-. say 348.0 at James Cook's house. (13.8). Damaging floods swept down Swaledale in the early hours of Friday morning; the approach road to Gunnerside Bridge was destroyed and the road to Whita Bridge severely damaged.

The Surveyor reported that considerable damage had been caused in Swaledale, the road adjoining Gunnerside Beck being partially washed away, whilst the fence and road at Rowleth bottoms had been considerably damaged. The river had made further encroachments on the Brompton road. The Committee recommended the purchase of half an acre of land. 16.

Allotments house, Reeth. Mother (who is 72) as a small girl was held up by a flood, which came to Fremington corner, when she was trying to get to school from Grinton.

Mr. Day, Brompton-on-Swale. He is 72 years old and it is 65 years since water was a foot deep in his grandfather's house near the river. .-. 216.1 (15.6).

Rain fell incessantly from Thursday to Saturday (15th) and the storm continued to rage all Sunday at Richmond. At Scruton a man, his wife and three children were rescued from Chicken House. The River Swale had burst its banks in three places: (a) Between Kirkby Feetham and Scruton, (b) Near Morton Bridge, (c) On John Ward's farm near Fairholme.

On Monday Topcliffe Bridge was almost impassable due to water being over the highway, .-. say 65.0 (15.3), and the arches of the bridge at Skipton were somewhat damaged. On the 22nd floods still continued where the Swale had broken the banks, though the water had subsided 2 ft by the evening of the 16th.
Farmer at Holme: Aged 88. He had farmed there for 66 years. This flood was due to rain. During the flood he had rowed a boat over the top of the gate at the bottom of Swale Lane. Top of the gate is 78.8, say flood 81.0 (19.2).

Richmond rainfall 3.60” in 1 day

Flood on the Ouse at York due to snowmelt – 12’ 6” above summer level but no serious damage reported. Hence also effects on Swale.

Richmond: A whirlwind swept down Swaledale past Richmond. Various people were injured by lightning and cattle and sheep were struck dead. Richmond, Yorks. At 1.50 p.m. military tent struck by L, seven men injured, but all recovered.

Thunderstorms of unexampled severity throughout Swaledale and the Vale of Mowbray with hail 1 inch in diameter causing the breaking of 100,000 panes of glass in Richmond.

Richmond: The streets were flooded and resembled rivers. The hailstones were as large as a plum and some like blocks of ice. The windows facing south and east were demolished by the thousand; in some streets hardly a pane remains. Glass houses were broken to atoms and trees shorn of their leaves and poultry struck dead. Great damage has been done to grain crops. The Catholic Church windows are riddled and there is hardly a whole pane of glass left in the Wesleyan Chapel. In tailor’s shops where there are skylights the ‘hail went through the windows like bricks’. Chickens and ducks were struck dead. Cattle and sheep were seriously injured. Rabbits have been knocked dead and pheasants, partridges and grouse have been killed wholesale. A correspondent reports that he measured some hail stones 6 inches in circumference.

At Richmond the morning was sultry with distant thunder; the storm broke at 2.15. Rain was followed by small hail, then hail as big as bantam’s eggs with rising wind. They broke window glass and items in rooms. Some were 2 inches long and half an inch in diameter and a variety of shapes; some weighed at 3 ½ ounces. Chickens were killed and hats holed and heads cut. In every small house in the town 30 panes were broken. Zinc roofing was riddled. After the storm many houses were flooded and roads had the appearance of flooded rivers. The ice shower reached as far southeast as Shotton. It is estimated that 100,000 panes of glass have been broken and all this in 10 minutes. (later estimate nearer 200,000) At Skeeby two miles away there was no rain, also at Scorton and Catterick and Leyburn. Windows facing S or SE were demolished by the thousand. At the Fleece Hotel the hail cut like bullets through skylights. Northern Echo report has a detailed description of hail losses but very little on flood damage.
Ripon: Preceding the storm the temperature reached 85F and the first storm lasted 2 hours and the second one hour. No flooding was reported.
Baldersby: Hailstones were one inch in diameter with much glass broken.

Boroughbridge: The storm brought flooding in some parts of the town to 18 inches. Large hail and ice was reported at Harrogate where windows were broken.
Damage was also caused by lightning at Northallerton, Bedale and by the large hailstones. Cows and horses were killed by lightning in the Thirsk area.

Waitwith – Hailstones the size of goose eggs 70-70 mm diameter
Harrogate Hailstones 38-50 mm diameter up to 2 oz; 100,000 panes broken within 5 mile radius

1894-95
24 Jun 1895 Sowerby Br (Thirsk?) 3.61” in 2.5 hr
1 Jul 1895 York Herald 3 Jul
25 Jul 1895 BR Hawes Junct 2.76” Hawes S. Lund 2.58” Aysgarth Vic. 2.97”
Yorkshire Gaz 3 Aug Leyburn Bolton H 2.50” East Layton 2.25”
16 Mar 1896 Yorkshire Gaz 21 Mar
4 Jun 1896 BR Northallerton 2.16”

J. T. Rutter, Gunnerside: A thunderstorm at Gunnerside caused the beck to rise within 2 Inches from the top of the arch of the bridge in the village. - 8.0 ft. above normal water level.

Hail fell two inches in diameter smashing windows in the villages of Hutton Sessay, the two Thirkebys, Osgoodby, Bagby, and Hutton at the foot of the range inflicting great damage on the fruit crop and cutting the heads of the clover. Cold Kirby was also badly affected.

Richmond: Heavy rains were accompanied by violent whirlwinds lasting an hour and a half. The streets were flooded for a time. Houses were damaged by lightning and the high winds.

Richmond and Swaledale were visited by heavy storms of rain with thunder. The River Swale overflowed its banks at many places and did much damage to hay crops.

Thunderstorm in Swaledale. The wind blew a perfect hurricane all day, after the thunder in the morning. The Swale was flooded and overflowed its banks in many places, doing a great amount of damage.

Thunderstorms occurred around Yorkshire on 6 to 8 June but York had thunderstorms for 5 days in a row. The storm was especially severe between the River Swale and Hambleton Hills. Farm buildings were struck by lightning and pigs, a mare and foal killed. The rain washed out turnip seeds and young plants. Large lumps of ice fell in Wensleydale (Aysgarth). In Swaledale hail the size of marbles fell and the Swale and tributaries overflowed
Shields Daily Gaz 5 Jun

Mr. Body, Allotments Lane, Catterick: His father (aged 77) remembers a flood 60 years ago, which came up to the second or third bar of the gate at the bottom of Allotments Lane. -.-. 171.0 (9.0).

Mr. Peacock, Great Langton: "Langton Bridge was built in 1897 and the water was four rivets down from the top of the steel pillars when it was being tested with a steam roller." -.-. 117.0 (10.5).

Mr. Barker, Cross Lanes, House, Scruton: "The River was up for three days, flooding Chicken House (near Scruton) to within 3 ft. of the window ledge of the second floor". This is the highest flood he remembers. Flood say 100.0 (12.0). He indicated how far the road from Morton Bridge was flooded -.-. 97.0. Also overflowed the right bank at SS.5. -.-. say 94.0 (20.6).

5 Aug 1898 Carlisle Patriot 12 Aug

A considerable portion of the embankment near Hawes Junction slipped through excessive rainfall on 5th and fell on the line in front of a pilot engine which was derailed. [Raven and Croglin streams were in the highest flood for 8 or 9 years and flooding was reported at Kirkby Stephen and elsewhere].

On Wednesday afternoon (12th), in Upper Swaledale, there was a heavy downpour of rain. At Richmond and throughout Swaledale, the storm was of exceptional severity, rain descending in a perfect deluge. At Richmond at 6.0 p.m. the river suddenly rose 7 or 8 ft. and rushed down the valley causing considerable destruction. -.-. 322 at MS.23. The River carried huge masses of peat and boulders, several houses being almost filled with peat. District bridges entirely washed away were Hoggarths Bridge, Ramps Holme Bridge and Kisdon Force Footbridge. The County Bridge destroyed was Scott's Bridge near Keld. Bridges seriously damaged were Thwaite and Muker High Bridge. Bridges with foundations damaged were Gunnerside and Grinton. George Alderson Scott's farm house at the entrance of Great Ash Gill bore the full brunt of the water and is now a complete wreck, Water was 5' 4" high in the downstairs room. -.-.8.7 ft. above normal water level. Five to six acres of land around was covered in mud, sand, rocks and stones. The flood did not reach Arkengarthdale.

Stone House, Keld. Floodmark in the yard. -.-. 1176.0, 7.9 ft. above normal water level.

Catastrophic flood came down Great Ash Gill of Great Shunnor Fell, joined the swollen waters of the Swale, and swept many bridges away, including the Old Pack Horse Bridge at Keld17.

Flood mark on the house above Park Bridge, Keld. 1055.2, say 1056 at US 115 (19.7).
A cloudburst on Shunnor washed away part of the foundations of the Chapel at Thwaite, together with its walls and railings.

The Surveyor reported that the flood had taken away part of the Ramps Holme Footbridge, and that it would be necessary to erect a new pillar. Resolved to ask for tender to remake 130 yds, of new road near Muker. Resolved also to make roadway secure at Thwaite by the erection of a protection wall.

Old fellow at Muker "The rain only lasted twenty minutes at Muker, whilst no rain fell at all at Gunnerside. Ramps Holme Footbridge was washed away due to debris piling up against it."

Gorton Lodge, Low Row: An old fellow born in 1890: This was the worst flood he remembered, coming down in a wave breast high in the afternoon. He indicated the extent of the flood caused by the wall being washed away at MS.86, though the wall was not as high then as it is now. The river rose so rapidly and with such tremendous force as to sweep everything before it. Huge boulders and lumps of peat the size of a cart were dislodged and swept onto the road which at some points was washed away altogether. The bridge at the foot of Pry house Hill was clean swept away. The bridge at Smiddy Holme shared the same fate whilst the strong bridge connecting Swaledale and Tan Hill roads ‘mingled its materials with the raging torrent’. Every bridge down to Thwaite was also washed away. Kilburn’s house at Hoggarts was several feet deep in peat. The day school at Keld could not reach home and were put up all night in the village. At Mallerstang, Aisgill and Hawes Junction hail fell in pieces the size of a man’s thumb and battered crops. Water shook the foundations of Muker and Thwaite bridges and washed the walls away – the same with newly constructed bridges at Gunnerside and Ivelet. The road near Ivelet was badly damaged. Between Muker and Thwaite it was necessary to make temporary roads through the fields where the road was bodily removed. Hardraw Scaur and River Yore (Ure) carried destruction before it. Bridges disappeared and the flood swept down the walls of the village churchyard and levelled the tombstones. Furniture was floating out of the open windows of houses. [Also reference to flooding on Eden, south Tyne (Alston) in the Borders and at Leeds].

YG notes that in the neighbourhood of Hawes it rained down blocks of ice an inch and a quarter in diameter and scores of windows were broken. The Hardraw Beck overflowed its banks; the village of Hardraw was inundated and the parapet of the bridge on both sides was carried entirely away and also the stone trough in the middle of the village form which the inhabitants get their water. Six calves were carried away by the flood and two killed by lightning. The storm focused on Gt Shunner Fell and Staggs fell and in the Hardraw valley the first village of
Fossdale an new building was swept away and three carts. All the bridges in the valley suffered the same fate. The beck has taken another course and the place where the bridge stood is choked up with debris of huge boulders and trees. The walls are all levelled to the ground and the meadows are strewn with boulders. The churchyard is stripped of its walls and the ghastly scene includes uprooted gravestones, dead sheep and boulders. The village inn was covered in mud and the basement windows were washed out.

The thunderstorm passed over Swaledale and at 6 pm the river suddenly rose form 6 to 8 feet. ‘It is feared a waterspout must have burst in the dales because the river was very low before the flood’.

YG on 22 Jul further reports ‘Above Gunnerside three bridges have disappeared, Hoggarth’s bridge Swaledale Head and Smithy Holm bridge over the Swale. Further down Scott Bride has been so disabled as to be impassable. At Kidson force near Keld a one arched bridge has been washed away. Near Thwaite the approaches to Shimner Fell bridge have been washed away. The long close bridge above Muker has been seriously damaged. Over 100 yards of roadway have been hollowed out between Muker and Thwaite. Mill Bridge Gunnerside and other bridges have been seriously damaged. At Hoggart’s Gill the occupants of Hoggart’s Farm saw thousands of tons of stone with the raging flood. It swept away a barn as if it were matchwood and wrenched of the door and undermined the wall at the front as the occupants escaped upstairs. They shortly had to escape out of a little back window through 6 feet of water to safe higher ground. The occupant vows he will never live in the house again.

The flood rolled down the dale so suddenly that farmers were unable to get their stock and implements out of harm’s way to prevent them from being washed away. The flood rolled past Richmond Castle at 6 pm, thundering over the force and submerging the island below. Two tripper boys in a boat just managed to reach the side in time.

[Thunderstorms were reported widely through the country and in other places in Yorkshire at least 3 people were killed]
Thunderstorms generally in NE. A cyclonic rain of considerable intensity reinforced in some parts by local thunderstorms gave the maximum annual rainfall at 160 stations in the east and north of England, with falls greater than any previously recorded at several stations in Yorkshire. Between 8am of 3 Aug and 8am of 4th the centre of a small well marked cyclone passed from east to west across England between Cardigan Bay and the Wash, with easterly or NE gales in Yorkshire and the Northeast.

Thunderstorms occurred in the Northallerton, Wenselydale, Richmond and Middlesbrough areas. In swaledale damage to crops was reported.

At Richmond on Friday night and Saturday morning (27th) there was a terrific gale with pelting showers of snow and rain. At Northallerton there was very heavy rain on Friday night and Saturday morning, especially around 1.0 a.m. Sun Beck overflowed onto the main Street. At Brompton (near Northallerton) Mr. Wilford's linen factory was flooded to a depth of 2 ft. and water covered Brompton Bridge. .-. 8'3" on gauge board.

Richmond: Heavy rain flooded the streets and penetrated the roofs of old buildings. The rain continued for hours and was accompanied for a time by a heavy gale.
between 0900 on 11th and 1600 on 12th

Widespread heavy rainfall from a deep depression moving across Ireland and northern England extending over 2 days. Rainfall on 11th exceeded 1 inch over the whole of Ireland except the extreme NW and SW, and parts of Lancs and W Riding of Yorkshire. On 12th the heavy rain continued in NW England and extended to Northumberland as well as southern Scotland and south to Derbyshire. (Complete BR rainfall list scanned)

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Amounts</th>
<th>Notes</th>
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<tbody>
<tr>
<td>11/12 Nov 1901</td>
<td>Osmotherly</td>
<td>0.62 1.95</td>
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<tr>
<td></td>
<td>Richmond</td>
<td>2.70</td>
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<td></td>
<td>Aysgarth vic</td>
<td>1.10</td>
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<td></td>
<td>Leyburn Bolton Hall</td>
<td>0.96</td>
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<td>E Layton</td>
<td>0.52</td>
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<th>Date</th>
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<tr>
<td>27 May 1904</td>
<td>Thirsk Sowerby</td>
<td>1.90</td>
<td></td>
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<td>Thirsk The Hall</td>
<td>1.87</td>
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<tr>
<td>18 Jun 1905</td>
<td>Thunderstorms</td>
<td></td>
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<td></td>
<td>Richmond</td>
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<td>The brooks were quickly flooded and burst down in wild streams from the moorland hills. The Swale was quickly flooded. (Mainly of interest to anglers)</td>
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<td>23 May 1906</td>
<td>Thunderstorms</td>
<td></td>
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<td>The storm affected Swaledale and the Vale of Mowbray and in many places the roads were flooded and impassable. At Ripon the North transept of the cathedral was struck and part of a turret knocked off. Lightning killed two horses at Bolton Percy</td>
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<tr>
<td>7 Aug 1906</td>
<td>Thunderstorms</td>
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<td></td>
<td>Richmond</td>
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<td></td>
<td>A thunderstorm lasted two hours, flooding the streets and damaging the roads.</td>
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<tr>
<td>9 Jun 1907</td>
<td>Thunderstorms</td>
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<td>In Richmond and vale of Mowbray much damage resulted on Sunday 10th night. A heavy thunderstorm was reported at Northallerton with lightning damage and one man killed in Wensleydale.</td>
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<tr>
<td>3 Jun 1908</td>
<td>Thunderstorms</td>
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<td>The Surveyor reported considerable damage by recent storm; a stone bridge near Summer Lodge had been swept away and the road to Haverdale had been torn up in several places.</td>
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<tr>
<td>17 Feb 1910</td>
<td>Thunderstorms</td>
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<td>The Surveyor reported further damage to Scabba Wath by the flood and a wall near the riverside at Rowleth</td>
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</table>
The gale at Richmond: The rapid thaw was accompanied by heavy rain and sleet in the western moorland dales, which continued on Wednesday and overnight; whilst strong showers continued on Thursday with a remarkably strong South West wind. Hundreds of acres of land are under water in low lying districts. The Swale at one time was six or seven feet above normal level and the riverside road at the foot of the Castle was full of water.

- 321.5 at MS.23. (7.3).

Heavy thunderstorms were reported in the Thirsk and Northallerton districts with roads under water. Many chimneys were fired by lightning.

Thirsk: Local roads were under water
Northallerton: chimneys were fired by lightning.

Richmond: Rain descended in torrents and flooded the streets and country roads.

Continuous rain
Swaledale: The Swale and its tributaries overflowed their banks following a continuous downpour.

Exceptional and sudden rise of flood considered to have been due to a cloudburst on the hills near Punchard (above Gunnerside). It rained heavily all Tuesday and increased towards night when a strong wind arose. At Gunnerside at this time the beck and river were at normal height. At 3.30 a.m. on Wednesday there was a mighty roar as Gunnerside Beck had risen six or seven feet, though the Swale had not risen. At Rowleth Bottoms the river overtopped the protection wall which was 8 ft. above the river bed, and flooded two large fields on the other side of the road to a depth of 6 ft. -- 630.0 at MS90 (8.2). Low lying land all the way to Richmond was flooded. At 3.00 a.m. on Wednesday the people of Arkengarthdale were awoken by raging torrents, the like of which had not been seen for thirty years. The beck began to subside at 7.00 a.m. The road was flooded at Grinton, and by the time the river reached Foss Head at Richmond it must have risen 14-15 ft. -- 320.0 at MS.23.

The flood was the largest since 1883 at Richmond, the river overflowing the allotment gardens at Easby - say 291.5 a " MS.19 (8.5). Going downstream the Swale rose until nearly level with the top of the embankments breaking through two places at Bramper Lane (near Morton-on-Swale), whilst fields were flooded on the North side of the railway at Morton Flatts. The road at Morton-on-Swale was flooded from 11.00 a.m. on Wednesday until Thursday morning, so that road traffic had to go via. Langton Bridge.

Old fellow at Fremington: "It is 40-50 years since the river was 5 ft. from the top of the arches at Grinton Bridge..."
and overflowed walls on both sides of the river upstream of the bridge." 580.5 at bridge (10.8). "Also it was one and a half feet deep on the road through Fremington." (Due to Arkle Beck flowing out near the mill onto the road).

Mr. Metcalfe, Church Saw Mills, Richmond: "The river came over the edge of the dam and through the mill." 305.0 (13.0).

The Landlord at Catton: As a boy he lived at Topcliffe and remembered one flood which came to the foot of the Mill Bank and flooded the road on either side of Topcliffe Mill, -. say 64.7 at the foot of the Mill Bank and 65.2 at the Mill, (5.0 ft. above the crest of the weir.).

Old fellow at Maunby: He remembered a flood in the teens when the flood bank upstream of the lane to the river was just showing together with the top bar of the gate at the top of the lane. Flood bank crest 83.1 Flood say 82.5 (17.3).

29 Dec 1916
Sedbergh Dent PO 2.53
Sedbergh Howgill Sch 2.58
Hawes Junction 2.64
DST
No rainfall totals given for Swale catchment

8 Aug 1917
Thirsk 2.06
Newby Wiske 1.98
N Otterington 2.14
BR

21 May 1922
West Witton (Ivy Ho) 2.66
Leyburn 2.55
East Harlsey 2.11
BR
Yorkshire Post
23 may

1 Jan 1925
DST

Thunderstorms associated with a heat wave where temperatures rose to 88°F on 22
d. It is possible these missed the Swale catchment.

Richmond: The storm continued from 6 till close on midnight. Streets and roads were flooded. Large hail fell in the Vale of Catterick. Horses, cattle, poultry and game were killed by lightning.

Viewed from the Friends School at Reeth, the valley resembled a lake. Heavy gale and rain on New Year’s Eve had caused the flood. The water was several feet deep from Grinton to Fremington. The Arkle was in flood. Beyond Grinton there were huge gaps in fences and walls were washed away.
Farmer, Ramps Holme Footbridge: Indicated the height of the flood, 794.0 at MS.105 (9.2).

J, T. Rutter, Gunnerside: "The flood came to the gap in the wall on the road from Gunnerside Bridge’ 724.0 (22.1).

Strands, Gunnerside: Indicated where the flood came to on Rowleth Bottoms. 678.2 at MS.89 (9.0).

Bus Driver, Gunnerside: "At Isles Bridge the river was normal at 7.00 p.m. on the 31st, but soon after midnight the bridge was completely covered." 663.5 (13.5).

Gorton Lodge, Low Row: Indicated where the flood broke through the flood bank, though the flood does not seem to have covered all the bottoms.

Fremington Corn Mill: Water was 1 ft. deep in the cow byres above Reeth Bridge." say 606.0 at Reeth Bridge (9.4 above normal level of Arkle Beck). Also water was 2-3 feet deep in hen huts on Reeth Allotments." 587.4 at 113.68 (9.1).

Roadman, Reeth "The flood reached its peak at Fremington corner at 1.30 a.m. By 4.30 a.m. it was possible to crawl along the wall top to Grinton Bridge." 579.5 (9.8).

Mr. Norris, Grinton: "The flood occurred after a quick thaw of snow." He was able to lean over the parapet of Grinton Bridge and touch the water with a walking stick. 581.0 (11.3).

Mr. Gill, Cogden Hall: "The flood did not overflow the river banks much except by the moraine." 573.5 at MS.64 (9.3).

Mr. Metcalfe, Church Saw Mills, Richmond: "The flood came up to the Saw Mills door." 303.6 at MS.22 (10.8).
Friend of Mr. Day, Brompton-on-Swale: "The flood was 3-4 ft. lower than that of 1892." say 212.0 at MS.12 (12.0).

Low Kiplin, Great Langton: 1 1/2 ft. deep at the little bridge near the farm. - . 119.8 at SS.9 (10.2). The water came down in a wave rolling over itself.

Mr. Peacock, Great Langton: "The kitchen was flooded in the early hours of the morning." - . 116.5, say 117.0 at Great Langton Bridge. (10.5). "It broke the banks at Scruton which have never been put right since."

T. Boynton, Pickhill: "It is 30 years since the river broke the flood bank against Maunby Bridge and near Prospect House."

1 Jan 1925
Reeth Arkengarthdale 2.50
BR

26 Jul 1925
Thirsk Mt St John 0.35" in 10 mins
Thunderstorms over the country

21 Sep 1926
Newcastle Jour. 21 Sep
Thunderstorm

5 Jul 1927
Yorkshire Evg Post 5 Jul

21 Sep 1927

Richmond: Roadways in the Richmond area were torn up. Manholes in some of the steep wynds of the town were displaced and in Park Wynd huge craters were left. Houses on The Green and the Railway Station were flooded.

Northallerton: In South parade the water accumulated over a wide area. There was a big flood along Romanby road opposite the linoleum factory and under the railway arches. Between Bedale and Northallerton the water was up to the axles of cars.

Flooding in North Yorkshire and South Durham was the worst for some years. The Tees, Swale, Yore and Wiiske were raging torrents. Flooding was worst at Brompton (near Northallerton). Morton-on-Swale to Kirkby Fleetham road was under 4 ft. of water -. 93.5 (l6.6). Serious flooding below Kirkby Fleetham turned many fields into huge lakes. Flood banks at the confluence of the Swale and Wiske were under water on Wednesday night. -. 80.6 at LS.1 (18.1). They reappeared by Thursday noon. The river rose slowly at Morton-on-Swale being 300-400 ft. across in places. By noon on Thursday the water was only 1 1/2 ft. deep on Morton—Kirkby Fleetham road -. 91.2. Along each bank of the Swale from Maunby to Langton huge areas of land were under water, similarly on the Wiske from Great Smeaton to the Swale. Roads from Dalton to Topcliffe and from Topcliffe to Balderaby and Catton were under water in places. -. 85.0 at MS.VI (18.5).
Richmond suffered severely. Most of the low lying streets were under water. Corporation Offices were flooded as well as the Mechanics Institute which is used as a library. Houses were flood in Millgate and in Bargate the road was torn up. Ripening corn was beaten down by the heavy rain at Northallerton where there was a thunderstorm. At Thirsk about 2 inches of rain fell.

Observer at Hutton John provides details of a cloudburst at Stainmore common on the boundary between Eden Tees and Swale. Description is given in a paper by F. Hudleston in BR 1930 (scanned).

Heavy rainfalls were widespread throughout the country on that day.

At Northallerton the High Street was like a river. Water was a foot deep in houses at Water End in Brompton, near Northallerton. At Thirsk, early on Tuesday, houses were invaded by water on Beckside, Finkle Street and some of Mill Gate. Maximum height was at 10.30 a.m. Roads at Skipton Bridge and Topcliffe were flooded.

The observer measured spherical hailstones of ¾ inch diameter and noted one which was too large to put in the rain measure but which when melted yielded .04 inch.

A soldier was killed and others struck by lightning at <Catterick>. Camp roads and the powerhouse were flooded leaving the camp without electricity. The Post Office was flooded.

<Richmond>: Several houses were flooded especially at The Green and in Sleegill. In Catterick village houses and shops were flooded to four feet and three bridges were swept away at nearby Tunstall. A house was struck by lightning at Richmond. Sandbeck which runs past Richmond station was in spate and the bridge leading to Colburn was washed away. The bridge had been re-erected after a flood 12 months ago. The engine house of the railway company used for pumping water to the railway station was greatly damaged. The flood burst open the doors. The cricket ground was under water to a considerable depth. Houses were also struck by lightning at Northallerton.

<Downholme> (4 miles W of Richmond): Thunderstorms sent a wall of water through the village carrying away walls and ripping up roads

Bedale: Torrential rain flooded the main Street to a depth of several inches; the Market was suspended. The road between Bedale and Northallerton was flooded in several places. [Main lightning damage further south].
15 Jul
5 Sep 1931
DST
21/22 May 1932
Hull Daily Mail
23 May
19 Jul 1933
BR
13 Jul 1934
Yorkshire post
13 Jul
4 Oct 1935
Yorkshire Post
5 Oct
15 Aug 1936
Yorkshire Post
17 Aug
14 Dec 1936
BR
DST

Flood peaks occurred at Thirsk on Friday (4th) and again at 2.0 a.m. and at noon on Saturday. Finkle Street was like a river and at one time it reached the market place. -.. 105.9 at Thirsk gauge (8.1). The River Swale overflowed its banks at Myton. -.. 48.0 at LS.1. (18.0).

Thirsk: Cod beck overflowed and invaded about a dozen houses on the Beckside and Wesley Court. Northallerton: The Sub Beck overflowed and flooded houses in Friarage Street where the water was 2 feet deep and the Baptist Church was surrounded.

Bedale The hermitage 1.46 in 90 mins

Persistent rain with a few rumbles of thunder

Reeth: The drains could not cope and the streets were flooded. The thunderstorm lasted an hour and a half and washed a quantity of sand into some of the houses.

Hawes: A whirlwind swept a number of people from their feet. Haycocks were scattered. At hardraw there was no rain at all.

Thirsk: A thunderstorm with rain caused failure of electricity. A dozen houses in the lower part of railway Terrace were flooded. Finkle Street was also affected.

Northallerton area; there was incessant rainfall and thunder and several roads were flooded

Thirsk: Several buildings were struck by lightning.

There was continuous rainfall on Sunday and Monday (13th and 14th). All the low lying land including road at Scabba Wath was submerged. -.. 675.0 at MS.89 (5.8). On Monday water poured over the strengthened wall of the Athletic Field at Reeth and 30 ft. was carried away. At Grinton water was on the road to Fredington. -.. 579.0 (9.0). Arkle in spate, entering cow byres at Woodyard near Reeth. On Tuesday the Swale swept through Langton, Thrintoft, Scruton and Morton like a tidal wave; breaking checker bank and pouring over land. At Langton and Thrintoft farmhouses and cottages were flooded. At Scruton there was a huge lake between the lower end of the village and the river. At Morton the road to Northallerton was under 4 ft. of water. Nearly the whole of Mr. Peacock’s land at East Grange Farm was under water. -.. say 93.5 at SS.6 (15.2). Also Mr. Raine’s farm at Morton Flatts was under water. -.. 94.0 at Morton Bridge (.7.1). Water subsided late on Tuesday morning; The Sun Beck overflowed at Northallerton.
Mr. Gill, Cogden Hall, Grinton: "It did not overflow banks much except by moraine." - 573.0 at I.S.64 (8.8).

Under Bank, near Richmond: Indicated the extent of big flood which occurred just before the war. -392 at M3.35 (7.0), 379.0 at MS33 (6.1), 371.5 at MS.31 (8.4).

Kirkby Hall: "The flood was 1 ft. off the top of the banks, the banks having been raised 3 ft. since then." - 108.3 at 3d.3 (12.4).

Maunby Rush, Maunby: "Flood broke the left bank upstream of the farm and flooded the land all the way to Ainderby Steeple. The hedge tops were just showing." - 86.0 at L3.3 '16.5).

Low Swainby: Broke through bank by Maunby Ferry.

Landlord at Catton: "Floods have come over banks three times in twenty five years." - 69.0 at LS VII (8.3).

Gunnerside: Four houses were flooded and road to Muker and Reeth partially blocked with rubble and stones brought down from the hills. 'Water between 3 and 4 inches deep swept down from the hills. 'It was the worst storm for a great many years’

Swaledale:

At 17.00 a violent thunderstorm broke out over Thirsk and district with vivid lightning and heavy rain. The rain lasted until 18.30 when 2.46 inches were measured. As a result of the downpour a neighbouring stream burst its banks and roads nearby were flooded. The storm appeared to follow a course from the SE over Kilburn, Bagby and Thirsk and then on to Ripon and Harrogate. Additional falls for the day were at Thirsk WW 3.27, National School, 3.21 and Thirsk Hall 2.49. Only 3 miles from Thirsk there was very little rain

Thirsk: Considerable damage was done to property. Cottages in Silver Street, Sowerby were flooded to a depth of several inches. Long Street was under water for a considerable distance and in Norby the road around the church was impassable. At Carlton Miniot the village post office was flooded.

'The roads were flooded for a time at many places'.
Richmond: Several houses in Darlington road were flooded and cobblestones were washed out of Ryder’s Wynd and Frenchgate. Houses in the Green were also flooded. In Moor Lane the rush of water sent a manhole cover into the air.

Landlord at Catton: "Highest flood in 25 years". Indicated the extent of the flood. -.. 70.0 at LS.VII (9.3).

Mr Lister, Topcliffe Mill: "Snow started on Boxing Day and there was a big frost until the snow melted in two days at the end of February. Similar to 1947 flood, being an inch or two higher." -.. 66.4 at the mill (6.2 above the weir crest.)

Fawdington: "Gates at Mount Bridge on Fawdington Beck were under water in the early forties." -.. say 57.0 at LS.IV (19.5).

BR notes ‘The press reported high winds and heavy rainstorms causing flooding in many parts of Yorkshire and Lincolnshire in early February’. Limited rainfall info to support this assertion.

BR notes: ‘On 28th and 29th there were 48 hours of almost ceaseless rain in the Lake District resulting in flooding’. Mr. Metcalfe, Church Saw Mills, Richmond: "There was a flood bank high 12-15 years ago one Saturday night. It lasted 36 hours with two peaks." -.. 298.0 at MS.21 (9.2).

Low Swainby (opposite Maunby): Frost all March after which the flood broke through at Healam Beck by washing the sluice gate away. Water came to the top of the gate near ?. 78.6 - 82.3. The check bank downstream of Healam Beck held the flood waters back. LS.2. (16.6).

Flooding occurred in low-lying parts of Harrogate from torrential rainfall.

Masham Moor is in Ure catchment; Lartington in Tees; no reports for Swale. Rainfall elsewhere was associated with thunderstorms.

Mr. Metcalfe, Spring End, Gunnerside: “Water was 2 or 3 feet deep along the lane on the right bank in the spring some ten years ago” -.. 693.0 at MS.92 (5.1).
Old fellow at Isles: The flood occurred ten years since when he had been working at Tan Hill. It had rained all day at Tan Hill, but had been fine at Low Row. The flood came in the evening and in an hour had risen to the top of the wall on the left bank of Isles Bridge, \( \cdot \cdot \cdot 661.1 (11.1) \).

There are no references to heavy rain on this date in British Rainfall and the flood is assumed to be the result of snowmelt.

22 Mar 1947

BR

DST

After a weekend of heavy rain, the River Swale overflowed its floodbanks between Skipton Bridge and Topcliffe, turning large tracts of land into a lake from which it was impossible to pick out the course of the river. At Skipton Bridge the water threatened to spill over onto the main Thirsk-Ripon road. \( \cdot \cdot \cdot 74.0 (13.2) \). The River was at full spate at Topcliffe Bridge - where at times it was only a few feet from the top of the arches. \( \cdot \cdot \cdot 63.0 (13.3) \). Only members of the staff with Wellingtons could get to Lister’s Mill on Monday morning. Dalton Lane was under four feet of water from Cod Beck. \( \cdot \cdot \cdot 61.6 \). By the 20th March the flooding position along the course of the Swale between Skipton Bridge and Topcliffe had eased somewhat, though many fields behind flood banks were still deep in water, and the riverside road between Topcliffe Mill and Catton regained impassable.

Mr. Raye, Allottments Lane, Catterick: This flood was not higher than normal, though there were several breaks in the left bank.

South Ellerton, Kiplin: Came through stack yard and along lane 1-2 ft. deep. \( \cdot \cdot \cdot 147.3 \) at SS.10 (5.5).

Kirkby Hall: Came 2 ft. over the top of the banks near North Lowfield and South Lowfield. Since then the banks have been raised 3 ft, \( \cdot \cdot \cdot 110.3 \) at SS.8 (14.4)

Gatenby Lodge: Broke through the banks at three or four places, practically surrounding Gatenby. It backed up Dam dike and Stell Beck. \( \cdot \cdot \cdot 85.0 \) at LS.3 (15.5).

Low Swainby: Indicated where the river broke through further downstream. \( \cdot \cdot \cdot 82.0 \) at LS. (17.6).

Holme, old chap of 88: This flood was about the same as the one in 1892. (The two highest floods he had known.) Indicated the extent of the flood. \( \cdot \cdot \cdot 74.7 \) at LS.IX (17.2).

Colonel at Howe: "The flood surrounded the village on three sides". Indicated the spot where the flood came to on the drive. \( \cdot \cdot \cdot 74.7, \) say 73.7 at LS VIII (12.9).
Landlord at Catton: Indicated the extent of the flood. \( \sim \) 70.0 at LS.VII (9.3).

Salmon Hall: Indicated extent of flood down to Topcliffe Bridge. \( \sim \) 67.0 at LS.VI (6.5).

Mr. Lister, Topcliffe Mill: Second highest flood in his lifetime of 60 years. He had taken heights of the flood from Monday 17th March to Monday 31st March, the peak occurring on the morning of the 23rd at 66.2 (6.0 above weir crest).

Farmer at Fawdington: "Water was 5 ft. deep at one point on Fawdington road", \( \sim \) 56.0, say 55.2 at LS.III (19.7). "Fawdington Beck had backed up from the Swale and the right flood bank had broken through just upstream of the village.

31 Jul 1948  
Leeming 1.30 in 35 mins  
BR  
A thunderstorm resulted in much damage by lightning and severe flooding over much of Lancashire and Yorkshire. Considerable damage was caused by lightning and heavy rain at Richmond where according to the Yorkshire Post the storm was the worst for 55 years. There was heavy hail in places and at Leeming they were said to be as big as golf balls.

22 Aug 1949  
Evening Chronicle  
22/23 Aug  
A severe thunderstorm affected Durham and North Yorkshire. Bridges were swept away in Wensleydale and much damage was caused at Carlton and Mermerdy in Coverdale where most of the houses were flooded to a depth of two to four feet.

There was a cloudburst at Penhill in Wensleydale with serious flood damage throughout Wensleydale and especially on the River Cover. The storm affected Beldale and several streets in Northallerton were flooded as well as Brompton village green.

15 Feb 1950  
Hawes Junction (Moorland Cottage)  2.71  
DST  
BR notes that heavy falls from 15th to 17th increased the seriousness of widespread floods which already in England and Wales had been aggravated by snowmelt. The Yorkshire Ouse etc and many smaller rivers were in flood before the middle of the month.

The biggest flood in 25 years submerged large areas of Swaledale on Wednesday (15th). The road was impassable at Scabba Wath. Large portions of the wall were washed away at Reeth Athletic grounds. Poultry had to be rescued from the threatened flood in the allotments. \( \sim \) 582.2 at MS.68 (6.9). Parts of the road in Upper Swaledale were flooded to a depth of several feet. \( \sim \) say 674.5 at MS. 89 (5.3). Photographs showed Morton-Bedale road under 2’ of water. \( \sim \) 92.5 (15. 6).

6 Sep 1950  
DST  
Flood in Wensleydale after torrential rain.
Stone House, Keld: Indicated the height of a flood since the war. - 1174.9 (6.8).

Farmer near Ramps Holme Footbridge: "Second largest flood in 35 years, being a little lower than 1925." - 793.5 at MS.105 (8.7).

Low Houses, Isles Bridge: "Broke through right bank downstream of Isles Bridge and flooded lane to a depth of 3 ft." - 654.1 at MS.86 (9.0).

Whitbecks, Grinton: "Last big flood was across the bottoms for 48 hours. After the first peak the river went down a foot and then rose again to a second peak",

Garage Hand, Richmond Old Bridge: "Flood was about 2 ft. over the road to the gas Works." - 322.0 at MS.23 (7.3).

5 Nov 1951
BR

Widespread southwesterly gales and heavy rain occurred on 4th and 5th and rivers began to rise rapidly. The basins of the Yorkshire Ouse and Severn were the most seriously affected the flood at York being the highest since 1931 with the exception of March 1947. A notable feature of these floods was that they occurred suddenly after a very dry period when most rivers were at a remarkably low level for the time of year. It might have been expected that the ground would have been able to absorb very considerable amounts of rain and delay the rising of the rivers but the falls were sufficient to saturate the surface layers and cause heavy runoff in a short time. Most of the Pennines, the Lake District had their heaviest falls on 4th whilst the Yorkshire Wolds and Cleveland Hills had theirs on 5th. For the two days more than 3 inches occurred over the North York Moors and in the Lake district

DST

At Brompton (near Northallerton) water just lapping over doorsteps of some of the houses at Water End. At Thirsk Cod Beck has flooded Waterside Cottages to a depth of 2' 6". - 104.3 at gauge board (6.5). Most of the main roads out of Thirsk carry several inches of water in parts.

Summer 1953

Old fellow at Muker: Above flood was within a foot of the deck of Ramps Holme Footbridge, as he had to wait on the left bank for the flood to subside. - 803.0 at gauge board. (10.8).

12 Jul 1953
BR

Leyburn Spennithorne 0.76 in 15 mins Tunstall (nr Richmond) Crag Lane Fm 1.00 in 1 hr

Tunstall observer wrote 'Damage here was severe to grain crops. Telephone and electricity services were also affected. Several inches of soil were eroded from a neighbour's root field.'
28 Jun 1959
BR

Thirsk Topcliffe Airfield 2.05
Keld 3.01
Gunnerside Lodge 2.66

Swale at Leckby 1955-85 AMS Rank 2 AM 16 (no more summer AM floods)

‘Unsettled thundery conditions continued until the end of the month’

Wind SW fresh to strong; frontal, orographic; warm front and cold front with wave moving east.

26 Aug 1962
Hiflows UK

Swale at Richmond 1960-81 AMS Rank 1 AM15

2 Apr 1962
BR

Keld 3.01
Gunnerside Lodge 2.66

Bainbridge 55.6
West Burton 50.3

Wind SW fresh to strong; frontal, orographic; warm front and cold front with wave moving east.

26 Aug 1962
Hiflows UK

Swale at Richmond 1960-81 AMS Rank 1 AM15

8 Dec 1964
BR

Bainbridge 55.6
West Burton 50.3

Warm front and cold front with wave moving east.

22 May 1966
Westmoreland gazette

In the wettest May for many years, rainfall at Hawes closes a number of roads in the Hawes area. Rain was accompanied by high winds that blew trees down.

14 May 1967
BR

Arkengarthdale 50.8
Bainbridge 51.3
Horse House 67.1
Keld 64.8
Rowleth End 54.9
Arkengarthdale 52.1
Richmond, Green Howard Road 50
West Houses 59.7
Raygill House 50.3
Swarcliffe Hall 52.6
Birstwith Hall 50
Beaverdike Res. 53.1
Barden Res. 52.8
Bolton Abbey 56.4
Mirk Pot Farm 74.2
Burtersett 64
Bainbridge 56.4
Long Ridge 65.3
Horse House 67.7
Low Houses 52.1
Healey Pasture 50.5

Depression, frontal orographic, thundery; warm sector depression occluding and moving northeast over northern England. Very widespread and heavy rain, some totals over 100 mm in Wales.

19 Mar 1968
BR

Frontal, orographic; cold front with minor wave moving southeast.

19 Aug 1956
Hiflows UK

Hiflows UK

16 Oct 1967
BR

19 Mar 1968
BR
### 23 Mar 1968

<table>
<thead>
<tr>
<th>Location</th>
<th>Rainfall</th>
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<tbody>
<tr>
<td>Breary Bank</td>
<td>51.1</td>
</tr>
<tr>
<td>Somerside</td>
<td>51.8</td>
</tr>
<tr>
<td>Keld</td>
<td>61.9</td>
</tr>
<tr>
<td>West Houses</td>
<td>72.1</td>
</tr>
<tr>
<td>Scar House Res.</td>
<td>75.2</td>
</tr>
<tr>
<td>Busker Beck</td>
<td>78</td>
</tr>
<tr>
<td>Raygill House</td>
<td>74.7</td>
</tr>
<tr>
<td>Ramsgill</td>
<td>68.6</td>
</tr>
<tr>
<td>Moorland Cottage</td>
<td>98.3</td>
</tr>
<tr>
<td>Mirk Pot Farm</td>
<td>107.2</td>
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<tr>
<td>Burtersett</td>
<td>98.3</td>
</tr>
<tr>
<td>Bainbridge</td>
<td>71.6</td>
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<tr>
<td>Long Ridge</td>
<td>66.8</td>
</tr>
<tr>
<td>Keld</td>
<td>66.9</td>
</tr>
</tbody>
</table>

Frontal, orographic; cold front with minor wave moving southeast.

### 2 Jul 1968

#### Webb and Elsom (1968)

<table>
<thead>
<tr>
<th>Location</th>
<th>Rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe thunderstorms</td>
<td></td>
</tr>
<tr>
<td>with large hail</td>
<td></td>
</tr>
<tr>
<td>occurred from</td>
<td></td>
</tr>
<tr>
<td>Devon to the northeast</td>
<td></td>
</tr>
<tr>
<td>Leeming 36 mm in 9 m</td>
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### 11 Sep 1968

#### BR

<table>
<thead>
<tr>
<th>Location</th>
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<tr>
<td>Carperby</td>
<td>55.2</td>
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<tr>
<td>Horse House</td>
<td>64.6</td>
</tr>
<tr>
<td>Low Houses</td>
<td>51.1</td>
</tr>
<tr>
<td>Somerside</td>
<td>57.4</td>
</tr>
<tr>
<td>Hawsett</td>
<td>58.9</td>
</tr>
<tr>
<td>Bagwith Brae</td>
<td>61.2</td>
</tr>
<tr>
<td>Drovers Inn</td>
<td>68.1</td>
</tr>
<tr>
<td>Harper Hill</td>
<td>53.8</td>
</tr>
</tbody>
</table>

(Not sure where these rainfall stations are located)

### 15 Aug 1971

#### Hiflows Uk

Swale at Leckby 1955-85 AMS Rank 1 AM 10

### 5 Aug 1973

#### Hiflows UK

Swale at Richmond 1960-1981 AMS Rank 2 AM 17

### 7 Sep 1974

#### Hiflows UK

Swale at Richmond 1960-81 AMS Rank 3 AM 21

### 2 Jun 1981

#### Guardian 3 Jun

Widespread thunderstorms

Grinton near Reeth: An 8 year old boy was rescued from an island in the Swale 25 yards from the bank when ‘a wall of water rushed down the dale after a thunderstorm’. Two local policemen roped themselves together and with 4 on the bank waded chest deep to rescue the boy.

### 26 Aug 1986

#### Carlton in Coverdale 88.4

Rain fell from the ex-Hurricane Charley over many parts of northern England and Wales with totals approaching 100 mm. Continuous heavy rain resulted in large totals in a short time. At Carlton in Coverdale 122.0 mm fell in a 24 hour period from 4 pm on 25th to 4pm on 26th. Flooding occurred in nearby Swaledale with much of the...
damage caused by the Arkle Beck which flows into the Swale at Reeth the site of a caravan park where much
damage was caused.
The army was called out to rescue holiday makers in Swaledale as caravan and camping sites were flooded from
the overflowing Swale. The road between Reeth and Richmond was flooded to a depth of 5 feet. Parts of bridges
were washed away.
Isolated cells in North Yorkshire, mid-Durham and north Northumberland with rainfall totals of 87mm at Brignall,
78mm at Smiddy Shaw reservoir and 80mm at Newton Seahouses.

Swale at Catterick Bridge 1992-09 AMS Rank 3 AM 5
Rainfall caused extensive flooding in Coverdale, Wensleydale and Swaledale with the rivers rising rapidly during
the night. A huge section of the 150-year old Mercury road bridge at Richmond collapsed after being battered by
the Swale. The bridge is likely to be close for at least 6 months. The maximum temperature of 28 C on 18th was
0.4 C lower than the record set in 1995.

Swale at Catterick Bridge 1992-09 AMS Rank 1 AM 2

Swale at Crake Hall 1980-09 AMS Rank 3 AM 5
Intensity of the rain caused some minor flooding and washed away a swing bridge over the Swale at Reeth.
Carlton does not report thunderstorms but East Scrafton notes a thunderstorm in Leyburn
Thundery activity in Yorkshire was reported on 14th and 15th. E Scrafton said half the 36 mm fell in 2 hrs; Carlton
said most of the 34 mm fell in 1 hr.

A thundery day reported. Carlton observer notes that the becks rose very rapidly.

Floods affected large areas of Yorkshire but no reference to thunder or high rainfall intensity.
East Scrafton observer notes: Rain through the morning and then torrential from 1330h until next morning.
Culverts were blocked by rubble from becks, roads were like rivers, tarmac lifted. Three local bridges over the
River Ure were impassable. Roadside walls were down again between Ure and Cover at Coverbridge. Flooding in
houses and fields where never before.

Swale at Crake Hall 1980-09 AMS Rank 2 AM 4

A deep low to the W of Ireland pushed frontal rain slowly E across W Britain during the day. This was heavy and thundery in places. Reports of thunder came from Hull to Northumberland, much of East Anglia, Lancashire, Gloucestershire and counties in SE England.

Four people died in the floods which inundated parts of the Midlands and Yorkshire, with more than 30,000 homes and 7,000 businesses affected. UK insurers are facing a bill of about £1.5bn after June's floods.

Low pressure remained close to Ireland during the 31st and pushed a sequence of fronts and troughs E across W and Cent parts of the British Isles.

See northeast flood history

Swale at Crake Hall 1980-09 AMS Rank 1 AM 2

Swale at Catterick bridge 1992-09 AMS Rank 2 AM 3

During the morning the rain spread into N England and also affected Wales and some S areas of England during the day. Over Ireland falls were widespread but mainly light. Thunderstorms broke out from late morning onwards - particularly around Norfolk, Lincolnshire and in S Wales.

Carlton-in-Coverdale: April was on track to be one of the driest Aprils on record. All that changed on the 28th when a raw NE wind brought copious amounts of rain during the afternoon and evening with a 24- hour total of 49.1mm, and a maximum temperature of 8.3C.

Thuder in parts of Cent S England around dawn later affected East Anglia as the heaviest rain moved N and E. By the evening rain was falling across much of E Scotland and S'wards to the N Midlands. At Leeming 48mm fell in the 12 hours ending 1800GMT.

Carlton-in-Coverdale: 20th - The rainfall of 54.4mm was the greatest on record for a July day (1977). The majority fell between 1900h and 2000h, falling at the rate of 134mm/h at one time.

Thunderstorms affected parts of northern England in the persistent cold frontal zone in the late afternoon and evening.

North Yorkshire Fire Service said they were first called to a flooded property at Little Ouseburn, near Boroughbridge at about 6.30pm and a house in Grewelthorpe, near Ripon, which had 2ft of water in the kitchen. A spokesman said crews were then called to properties flooded on the main street in nearby Kirkby Malzeard and a restaurant in Harrogate. At 8.50pm a crew from Masham came to the aid of a driver whose car had got stuck in flood water on Thorpe Road, in the village.
<Sandhutton> (3 miles W of Thirsk): A localised thunderstorm at 1530 GMT gave 15.6 mm rain in just 15 minutes.

<Reeth>: A bridge collapsed as flash flooding hit part of North Yorkshire when a month's rain fell in four hours. Grinton Moor Bridge has collapsed, therefore the Grinton to Leyburn road remains closed. The fire service had to pump out some new homes in the town after the water hit, some of the residents moved in just two months ago. "The roads were a raging torrent and there were sheds and household oil tanks floating down them." Ten people were rescued from flooded homes. North Yorkshire Fire and Rescue Service helped many more and estimated "100 or more" homes had been affected. Some homes had a metre of water in them. The farm at Eskeleth had water pouring across the farm yard, and then in under a minute it picked up enough volume and power to start throwing one ton bales around like they were rubber ducks. Many sheep were washed away, and later some would be found dangling horribly from trees and fences. At the Red Lion pub in <Langthwaite> the proprietor noticed water coming under her front door. Going to investigate, she got to the porch when a torrent of water suddenly burst through from the back of the building, hitting her from behind and nearly trapping and drowning her as she struggled to escape from the building. In Reeth, water was flowing across the village green. The volume of the water meant that it wasn’t rising floodwater that caught them, but the huge amounts of water running off the hillside. Up at the historic Grinton lead mines, the beautiful little stone road bridge is now totally gone and the meandering little streams between the bridge and the lead mine is now replaced by a deep rocky gully. A replacement bridge was transported up to the damaged Cogden Beck crossing on the B6270 on August 7 which links the upper dale to Richmond. At the same time, work has started at the site of a second bridge, Cogden South Bridge, on the C106 at Grinton Moor, which was swept away by torrential water.

<Fremington>: Farmer Jack Stones carried a ladder and two firefighters on his quad bike around the top of the village to get to a house where the occupants were trapped inside.

<Leyburn>: The fire station flooded as crews were out answering emergencies.

<Masham>: An art gallery owner in Masham, said: "It was a very sudden and extremely heavy thunderstorm. Silver Street was flash flooded and fire engines came to pump it out. The gardens are pretty devastated. It just looks absolutely drenched. The main road along Swaledale linking Richmond and villages including Reeth and <Keld> has been washed away near Grinton. Another road from <Grinton> over to Leyburn now has a gaping hole where for years there's been a bridge over a stream.

Local farmer Andrew Loftus, said he had seen **hailstones almost an inch (2.5cm) in diameter.**
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