

RAINFALL at Bolton W.D., Cranberry Moss No. 1.County of Lancashire Observer J. H. Swales, Esq. B. 2.River Basin Mersey - Lowell. 3.

Rain Gauge, by \_\_\_\_\_

Diameter ...							5			5	
Height .....							10			1	
Altitude ...							975			984'	
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEAN.
January ...							7.80	5.48	13.50	2.24	6.74
February ...							6.35	2.45	5.60	1.58	.56
March .....							3.32	6.34	3.84	2.10	3.35
April .....							2.55	3.93	1.54	1.56	3.10
May .....							3.80	1.56	1.24	3.85	2.80
June .....							4.05	5.54	8.13	2.20	2.79
July .....							4.63	4.52	2.95	4.28	7.06
August .....							4.35	7.63	8.98	6.75	9.24
September...							5.50	7.48	1.18	2.40	4.51
October .....							4.15	5.34	7.15	9.68	8.14
November...							8.65	6.35	8.85	11.15	8.36
December...							2.43	1.65	3.92	4.75	5.84
TOTALS...				73.52	63.87	55.33	57.38	58.27	66.91	57.54	62.52

IX 28. Inspects by Mr. Cohen see green file.  
1929. Overexposed.

Rejected from Survey. 1' low.

Position of Station on reduced Ordnance Survey Map, 2 miles to 1 inch Series } No. of Map \_\_\_\_\_

Reference No. \_\_\_\_\_

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1926	53° 40'	2° 26'						

RAINFALL at Bolton W.W. Brambling Moss. No. 2.County of LancashireObserver per J. K. Swales Esq. & Co.River Basin Mercer's Inwell 3.J.P. Rainworth C.E. (1930)

Rain Gauge, by.....

Diameter .....												5'
Height .....												1' 0"
Altitude .....												982'
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	
January .....										2.56	7.30	
February .....										1.68	6.2	
March .....										2.18	3.50	
April .....										1.57	3.31	
May .....										4.05	2.85	
June .....										2.26	3.03	
July .....										4.37	7.04	
August .....										6.94	9.26	
September .....										2.57	4.51	
October .....										9.80	8.16	
November .....										10.94	8.38	
December .....										10.50	5.85	
TOTALS .....										59.22	63.81	

Position of Station on reduced Ordnance Survey  
Map, 2 miles to 1 inch Series

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge



## RAINFALL at Bolton W.W. (Cranberry Moss) - 2.

County of South LancashireObserver Bolton Corp'n W.W.River Basin Mersey-Trawell-3Type of Gauge InsulatedAnnual Average ~~53.7~~ in. based on <sup>10</sup> years obs. ~~un-weighted~~ Period of average 1881-1915 Ref. \$ I.W.S.  
(1939) 53.7 10 741918/27.

Diameter	5.											
Height	1.0.											
Altitude	982.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means Totals	
January	8.80	6.72	3.96	5.03	3.30	5.61	4.08	6.94	(5.93)	(3.75)	54.22	
February	6.82	1.9	4.35	.53	8.19	3.28	7.36	2.70	(6.05)	(3.30)	42.77	
March	7.3	4.32	3.60	3.56	2.02	4.43	2.12	2.32	2.60	3.81	29.51	
April	4.13	4.69	2.55	3.36	4.68	1.36	5.52	.95	(3.48)	3.09	33.75	
May	3.05	5.68	2.64	5.02	1.35	1.10	2.23	(5.00)	1.72	.69	28.48	
June	6.32	1.20	3.01	8.09	4.73	5.80	2.67	(5.90)	(4.64)	1.17	38.53	
July	5.60	5.41	4.08	2.65	2.38	6.42	2.59	(6.75)	(10.04)	6.16	52.08	
August	6.35	1.81	3.78	6.31	2.29	3.69	3.24	3.02	3.23	2.85	36.57	
September	5.29	8.53	1.04	5.13	9.00	5.90	2.13	(3.40)	1.63	6.20	48.25	
October	3.49	10.10	5.89	8.11	11.62	7.02	2.71	(12.00)	2.63	5.86	69.48	
November	10.29	4.71	2.89	2.93	6.36	8.47	2.22	8.35	9.40	10.04	65.66	
December	3.49	3.03	8.2	8.61	4.98	6.44	3.28	5.76	(3.40)	6.67	46.48	
TOTALS	63.86	56.44	38.61	54.27	60.90	59.52	40.75	63.09	(54.75)	(53.59)	545.78	

1938 Values for May, June, July, Sept. &amp; Oct. estimated by Bolton Corp'n W.W. as gauge tampered with.

1940 Jan. &amp; Feb. estd. by observer

Another gauge to be used as a check for low at yr. 2 Cranberry Moss - lets 10.7.40  
(sh. no. 2887/1)Position of Station on reduced Ordnance Survey Map,  
1 mile to 1 inch Series

No. of Map

Reference No.

Date	Lat. N.	Long.	Railway Station	Distance from gauge	Direction	Parish Church	Distance from gauge	Direction
			Entwistle	1 1/2 m	S.E.	Danwen Turton	2 1/4 m 2 3/8 m	N.W. SE.

RAINFALL at Bolton W.W. (Cranberry Moss)-2 check gauge. 31

County of South LancashireObserver Bolton Corp'n. W.W.River Basin Mersey-Irwell-3Type of Gauge Standard

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

Diameter .....	5									5"	
Height .....										1'0"	
Altitude .....										990'	
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....											
February .....											
March .....											
April .....											
May .....											
June .....											
July .....										4.05	
August .....										2.45	
September .....										4.23	
October .....										(5.80)	
November .....										(10.00)	
December .....										6.64	
TOTALS .....										A.P. - imp	

Gauge set up. July 1940 as check on Sls no. 2887. Oct & Nov. estimates, gauge leaking;  
new gauge fixed 1/12/40.

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....  
1 mile to 1 inch Series

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge

Station No. T.F. 2887RAINFALL at Bolton W.I. (Bramley Road) - 2

41

County of South Lancashire Observer Bolton Corp. W.W.River Basin Murray, Lancs. - 3Type of Gauge SnowdonAnnual Average 53.7 in. based on 10 years obs. un-weighted. Period of average 1881-1915 Ref. 1.W.S.File No. 741918/27

Diameter	5			562	078						
Height	1'0"				1						
Altitude	982				4						
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means Total
January	1.60	6.33	7.02	7.47	4.79	6.19	4.29	11.72	3.62	4.68	57.71
February	5.56	2.41	3.74	2.66	7.42	7.70	(1.06)	3.68	3.55	5.66	43.44
March	3.86	4.11	1.68	.95	1.95	1.32	4.73	2.53	2.16	3.52	28.81
April	1.91	2.67	3.07	3.23	2.85	1.57	4.51	2.64	5.11	4.28	31.84
May	3.85	4.30	3.95	4.30	4.41	1.90	3.13	2.28	4.11	2.74	34.67
June	.56	.87	4.88	4.03	6.19	4.15	3.48	7.71	1.14	2.89	35.92
July	2.42	7.27	3.90	4.95	3.83	4.23	3.78	2.88	2.41	5.78	41.75
August	6.21	7.16	8.35	4.50	3.83	8.91	.16	6.86	3.14	8.42	59.54
September	1.66	4.20	5.61	8.38	3.62	9.14	4.68	4.01	2.58	10.40	54.23
October	6.00	3.37	4.70	7.30	7.64	1.73	1.36	4.09	5.62	4.31	52.12
November	3.86	1.77	5.08	8.44	.86	9.59	7.52	3.03	8.12	8.37	56.64
December	3.85	6.58	3.58	5.30	4.55	5.30	4.64	5.98	8.38	3.60	51.76
TOTALS	43.36	57.04	55.56	61.46	51.94	61.73	45.34	57.41	49.94	64.65	548.43

Dec. 1947. Engineer station built on concrete foundation. To be used as 1947. Feb. part used for snow

20004

Position of Station on reduced Ordnance Survey Map,  
1 mile to 1 inch Series

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1941			Entwistle	1 3/8 m	S.E.	Horton	2 3/8 m.	S.E.

BRITISH RAINFALL ORGANIZATION



Station No. 2897 I.T.F.RAINFALL at Bolton W.V. (Cranberry Moss) - check gauge

41

County of South Lancashire Observer Bolton Corporation W.V.River Basin Mersey - Truwell'sType of Gauge Snowdon

Annual Average ..... in. based on ..... years obs. un-weighted. Period of average ..... Ref. ....

File No. 741918/27

Diameter	5"		562	079							
Height	1' 0"			1							
Altitude	990'			41							
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	1.61	6.32	7.19	7.57	4.85	6.23	4.24	11.78	3.57	4.72	
February	5.15	2.12	3.72	2.67	7.49	7.63	(1.00)	3.64	3.52	5.70	
March	3.90	4.10	1.69	3.4	2.01	1.30	6.79	2.52	2.13	3.50	
April	1.90	2.73	3.28	3.26	2.84	1.52	4.56	2.58	5.13	4.26	
May	3.57	4.33	3.90	4.26	4.38	1.92	3.11	2.29	4.07	2.70	
June	.58	.80	4.85	4.08	6.24	4.16	3.43	7.63	1.10	2.92	
July	2.71	7.27	3.91	4.93	3.78	4.27	3.75	2.91	2.42	5.86	
August	8.78	7.15	8.47	4.45	3.78	8.86	.18	6.84	3.19	8.53	
September	1.57	4.20	5.53	8.26	3.63	9.05	4.62	4.05	2.52	10.13	
October	5.80	9.15	4.79	7.40	7.58	1.69	1.38	4.02	5.66	4.26	
November	3.90	1.79	5.00	8.41	.87	9.82	7.59	3.04	8.20	8.40	
December	3.80	6.71	3.62	5.28	4.59	5.38	4.55	6.02	8.24	3.65	
TOTALS	43.27 m.p.	56.67 m.p.	55.95 m.p.	61.51 m.p.	52.04 m.p.	61.83 m.p. check	45.20 m.p.	57.32	49.75 m.p. check	64.63 m.p. check	

1941. m.p. check.

1942 m.p. check.

1943 m.p. check.

1944 m.p. check.

1945 m.p. check.

1947 m.p. check. Feb part not at for snow

1950 m.p. check.

20004

Position of Station on reduced Ordnance Survey Map, 1 mile to 1 inch Series No. of Map ..... Reference No. ....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1941			Entwistle	1 7/8 m.	SE	Tunstall	2 7/8 m.	SE

BRITISH RAINFALL ORGANIZATION

2887 IV 36

51

County of Lancashire

Observer

River Basin.....*Norsey-Lowell-3*

Type of Gauge..... Bradford

Annual Average 52.7 in. based on 40 years obs. un-weighted. Period of average 1881-1915 Ref. 1 W.S.

File No. 74/9/8/27

Diameter ...	5'			562	078						
Height ...	1' 0"		1' 4"		1	1'	1' 0"				
Altitude ...	982'				51						
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means Totals
January ...	5.70	4.52	2.50	5.60	3.00	6.10	4.85	5.54	3.69	7.30	48.80
February ...	4.09	2.02	1.42	3.56	2.47	1.30	4.15	8.70	1.02	4.04	32.77
March ...	5.48	3.18	3.03	3.47	2.50	1.95	5.17	2.37	2.60	1.57	31.52
April ...	3.12	4.38	4.18	1.15	3.88	3.15	.90	2.03	3.92	3.26	29.97
May ...	2.49	3.08	3.13	3.40	5.01	2.33	2.75	5.67	1.55	2.55	31.96
June ...	1.59	4.98	2.98	4.21	4.51	3.10	2.68	4.76	3.17	1.75	33.73
July ...	4.42	3.08	7.62	8.56	1.24	6.65	9.10	4.40	5.40	10.08	60.55
August ...	5.69	6.28	5.68	7.48	1.71	14.02	8.26	5.37	.51	6.83	61.83
September ...	4.40	6.08	5.97	6.53	5.28	4.40	10.46	5.23	.46	4.05	52.86
October ...	1.12	6.09	2.38	10.18	3.39	3.52	8.42	5.31	5.90	5.33	52.14
November ...	10.02	3.33	7.44	8.96	3.37	2.23	2.70	2.38	6.30	9.00	55.73
December ...	12.15	5.31	2.50	7.95	6.60	5.46	7.05	5.15	10.87	6.45	69.49
TOTALS ...	60.27	52.33	48.83	71.05	42.96	54.21	66.49	57.61	45.39	62.21	561.35

Ins. 7.10.55. G. Sound. Open slightly to west but turf would probably not  
necessary.

*Position of Station on Ordnance One-Inch map :*

No. of Map.....

National Grid Reference **SD710192**

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge.	Direction
1951			Enniscorthy	1 7/8 m.	S.E.	Dunston	2 5/8 m.	S.E.

*Summary of Earlier Records from 10-year Sheets :*

		1910-19	1920-30	1931-40	1941-50	1951-60
Record D, or d			c1929 —	✓ —	✓ —	

Station No. 2887/1 <sup>T.P.</sup>RAINFALL at Bolton W.W. (Cranbury Pass) check gauge 51County of LancashireObserver Bolton (Bolton) W.A.River Basin Wesley-Lowell-3Type of Gauge Standard Bradford

Annual Average.....in. based on..... years obs. un-weighted. Period of average..... Ref.....

File No. 7419/8/27

Diameter ...	5'		562	079							
Height ...	1' 0"			1							
Altitude ...	990'			51							
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	5.76	4.49	2.55								
February ...	4.11	2.03	1.46								
March ...	5.56	3.22	3.02								
April ...	3.10	4.41	4.24								
May ...	2.53	3.06	3.20								
June ...	1.60	4.90	3.00								
July ...	4.38	3.09	7.61								
August ...	5.64	6.33	5.71								
September ...	4.49	6.02	5.85								
October ...	1.10	6.16	2.42								
November ...	10.13	3.45	7.68								
December ...	12.28	5.40	2.62	#							
TOTALS ...	60.68	52.56	47.36	N.R.							
	20	M	NP								

1951 np check

Ins. 7.10.53. G. sound. Site open to SW. To be terminated (at end of 1955)

1953 NP check.

1954. 1090 received but no record kept during 1954.

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference SD 709191

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1951			Antisocial	1 1/8 m.	S.E.	Hutton	2 3/8 m.	S.E.

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
			Camp 1940	✓	