

RAINFALL AT Hawthorn, Middle Knowe **80**

Lat. _____

Lon. _____

County of YorkshireWoolly

Rain Gauge, by _____

Observer M. D. Sonnau, Esq., C.E.J. B. Mc Callum Esq. C.E.

Ribble - 2

Diameter	8										
Height	2.6										
Altitude	1298 ^N										
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January	1.80	(1.80)	4.60	6.70	8.60	4.20	6.00	2.10	2.42	2.70	3.862
February	4.00	(5.90)	6.50	4.60	4.80	4.30	1.20	2.50	.95	5.12	3.937
March	3.20	11.80	5.90	.80	4.60	5.30	5.60	2.90	2.93	5.20	4.183
April	2.00	3.00	5.50	2.10	.90	1.90	3.10	2.30	2.70	2.40	2.600
May	2.80	5.90	3.00	1.40	4.00	1.90	5.20	2.80	2.00	4.00	3.300
June	6.00	3.70	6.80	5.60	1.10	3.00	2.80	.30	2.10	1.40	3.280
July	6.00	6.50	10.90	5.40	5.70	2.40	9.00	3.50	14.10	4.10	6.760
August	2.80	7.60	5.90	6.00	2.30	2.70	3.90	2.80	5.90	10.10	4.980
September	4.50	2.10	3.90	8.20	5.10	8.40	6.50	6.70	2.50	5.40	5.330
October	1.00	3.90	5.30	8.60	5.20	6.30	6.30	3.80	3.00	7.10	5.050
November	8.40	6.00	10.50	7.00	3.00	3.90	4.80	3.47	8.50	2.98	6.055
December	8.40	4.70	5.90	7.40	7.30	3.20	4.20	3.52	5.20	5.82	5.564
TOTALS	49.70	57.20	74.30	63.80	52.60	47.50	58.60	36.69	52.30	56.32	54.901

N.B. Rejected from Survey as 10° low.

RAINFALL AT Glaidburn Middle Knoll

Lat.

Long.

County of

York W.R.

Rain Gauge, by

Observer

Ribble 2

J.B. McCallum Esq C.E.
S.W. Land Esq C.E.
F. Whittle Esq C.E.

Diameter	8	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	7.25	1.90	5.80	2.40	5.00	1.95	3.70	1.30	6.60	7.80	4.370	
February	1.23	1.20	3.49	4.95	6.30	5.0	3.10	3.70	4.70	3.60	3.269	
March	5.00	1.30	.30	2.20	3.40	5.00	5.90	6.60	2.90	3.20	3.580	
April.....	1.90	2.00	1.20	.60	2.50	3.70	2.30	4.30	3.70	4.40	2.660	
May	3.03	2.50	5.80	2.40	2.80	.70	6.00	3.20	3.70	4.20	2.923	
June.....	5.80	1.30	3.80	2.70	4.40	3.00	4.00	5.50	4.60	1.60	3.670	
July	5.60	4.70	2.20	5.20	4.10	7.80	5.10	2.70	1.70	3.90	4.300	
August	7.20	16.00	8.50	5.90	8.30	7.50	4.20	8.60	7.40	1.90	7.560	
September....	5.20	6.30	6.80	8.20	.70	1.70	9.70	6.80	2.80	7.30	5.550	
October.....	5.52	5.90	7.60	6.90	8.30	6.50	6.80	4.00	2.50	5.70	4.60	5.662
November....	9.40	5.10	4.70	7.00	6.40	5.40	2.20	7.20	5.78	4.50	5.768	
December....	.40	10.60	5.32	4.30	7.15	5.90	7.65	8.90	7.70	4.30	6.222	
TOTALS	57.53	58.80										
	7?	60.52	54.81	54.15	57.55	49.95	52.85	61.30	57.28	51.10	56.532	

1890 Unreliable.

Corrections sent 17-XI-92

1880-

NB Rejected from Survey as 10° low.

RAINFALL AT Glaidburn Middle Knoll
 Lat. Lon. County of York W.R. Northern
 Rain Gauge, by W. Stansby Eng. Cl.
 Observer W. Stansby Eng. Cl.

Ribble - 2. M

Diameter ..	8									
Height ..	26									
Altitude ..	1298									
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	MEANS.
January ..	7.40	4.00	6.05	8.50	5.80	5.10	6.60	3.00	7.00	6.00
February ..	(4.80)	2.50	1.40	7.30	3.20	2.40	3.90	2.80	6.20	4.80
March ..	.55	4.50	2.20	7.40	3.40	3.80	2.00	5.10	3.10	3.00
April ..	4.70	2.50	2.10	2.70	5.80	4.40	1.50	3.50	2.40	3.360
May ..	2.30	.90	3.60	4.40	2.60	1.70	6.50	4.10	4.10	3.310
June ..	7.50	1.80	1.40	2.40	1.80	3.50	2.60	9.60	3.60	2.10
July ..	3.50	2.00	7.30	4.90	2.70	4.20	2.80	3.80	5.70	4.520
August ..	6.70	5.50	4.10	9.20	4.90	5.40	5.30	7.50	5.40	5.890
September ..	4.20	2.80	2.30	7.40	2.40	5.50	2.60	1.20	7.80	3.90
October ..	9.40	4.40	6.40	13.00	4.00	5.50	10.20	5.30	3.40	7.010
November ..	6.20	8.50	4.20	4.50	6.90	6.60	6.10	4.80	6.00	3.40
December ..	10.30	5.60	5.30	4.60	3.80	2.30	5.50	6.80	6.00	5.820
TOTALS ..	67.55	45.00	46.35	76.30	47.30	50.40	55.60	57.50	60.70	59.80
										56.650

1900 February Snow estimated

1900 given as 65.55 in PT recd. 1.00.

1904 - 46.00 - -

N.B. Rejected from Survey as 10° low.

RAINFALL at Slaidburn Middle Knoll

County of W. Yorkshire
River Basin Ribble 2
Rain Gauge, by

Observer W. Stubbs Esq. cl.

J. T. Shelday cl 1915
A. Y. Goosman Esq. 8.8.1918

M

Diameter ...	8										
Height	2.6										
Altitude ...	1298 ft								1296	1296	
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	6.20	2.10	5.10	5.80	6.10	7.37	7.18	3.12	5.08	5.70	
February ...	9.80	5.80	2.70	2.60	5.30	6.24	4.40	.88	9.30	1.95	
March	1.80	3.20	8.60	6.70	6.80	3.60	2.07	2.97	2.25	4.90	
April	3.50	4.50	1.90	5.80	2.20	3.40	5.87	2.95	1.00	3.90	
May	2.90	4.00	2.60	3.60	4.90	2.00	3.83	2.40	1.58	2.19	
June.....	3.00	5.00	8.60	3.70	1.30	1.00	4.16	3.02	3.23	5.50	
July	6.60	1.10	4.30	1.20	4.00	4.50	4.69	2.26	4.63	2.81	
August.....	9.20	4.30	8.10	2.80	3.60	3.95	5.36	10.20	5.67	4.83	
September ..	1.10	4.70	2.20	3.00	4.70	1.18	4.60	6.77	11.59	4.86	
October ...	4.50	5.70	5.60	3.80	2.70	1.61	15.75	6.72	4.84	2.59	
November ..	5.40	9.00	7.10	8.60	8.75	1.78	5.22	5.40	3.53	4.86	
December ...	7.80	9.20	4.60	5.10	6.50	9.11	5.40	3.97	7.13	10.30	
TOTALS ...	61.30	58.70	61.60	52.70	56.85	45.74	66.53	50.66	59.88	58.87	

+ 22.8.15 14.8 M. A old rod gauge. Rod not now used but measured in
glen from top. 8" shadow funnel set at 2' 10" on very summit of hill.
much exposed. Recommended 3' Wall 10' radius.

N.B. Rejected from Survey as 10° low.



Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

RAINFALL at Slaidburn Middle Knoll

County of N.R. Yorkshire

Observer A. T. Gooskovans Esq. C.E.

River Basin Ribble 2

(H. M. Well. Esq. C.E. 1926)

M.O. Rain Gauge, by

Water Engs. Blackburn.

NL

Diameter ...	8								5"		
Height	2.6								1' 0"		
Altitude ...	1298								1298		
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930 MEAN.
January ...	7.88	9.27	2.84	10.07	3.72	14.30	6.25	3.80	18.47	3.40	9.45
February ...	5.45	6.2	5.72	5.03	1.70	5.14	6.35	3.25	9.20	1.25	.98
March	4.08	5.90	4.50	1.95	1.45	1.70	2.40	4.45	4.90	2.25	6.30
April.....	7.02	1.70	3.14	4.06	2.45	3.90	2.95	4.70	1.80	2.45	2.80
May	5.46	2.80	1.92	4.18	7.08	4.75	3.70	1.75	7.75	3.80	2.10
June	3.55	6.3	3.31	1.26	3.60	2.24	4.50	4.70	12.50	3.00	2.55
July	6.31	2.46	6.81	7.83	6.60	2.25	4.90	6.45	5.50	6.30	5.90
August	3.31	7.00	6.29	8.93	7.62	4.35	4.40	7.90	8.90	9.10	10.10
September...	3.22	2.05	5.76	8.93	7.10	4.50	5.50	14.20	2.50	3.20	4.25
October.....	1.76	3.49	1.39	10.24	6.80	7.90	4.50	5.10	9.10	10.80	12.30
November...	3.21	3.30	4.50	10.50	4.51	3.25	9.00	6.95	11.40	13.10	9.45
December...	6.23	13.15	5.39	6.98	10.70	4.95	2.60	1.25	6.50	12.95	7.50
TOTALS...	57.48	52.3	51.57	79.96	63.38	47.23	57.05	65.10	91.32	71.30	73.68

Annual totals appear low, but user has agreed (1928) to fine standard along at 1 ft.

X/26 Inspectors by Mr. Colles see green file

New Bradford ^{new} site set up? Jan. 1928. This was moved to position recommended by Inspector on 1/12/28. (See in 660553/26)

N.B. Average for earlier years rejected from Survey as 10" low.

From Jan 1928 average reworked for new gauge 675 ✓ O.K.Position of Station on reduced Ordnance Survey } No. of Map _____ Reference No. _____
Map, 2 miles to 1 inch Series }

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1930 -			Settle	9 1/2 m.	S.E.	Slaidburn	3 1/2 m.	E.

RAINFALL at Slaidburn (Middle Knoll)

County of West Riding

Observer H. M. Webb, Esq., C.E.

River Basin Ribble - 2

W. Lister Esq., C.E.

Type of Gauge M.O. Standard

G. M. Kay Esq., C.E. (from 1939/

675 ✓

6

1891-1915

S.

Annual Average in. based on years obs. un-weighted. Period of average 1865-1902 Ref. 6005726

1865-2000

660553726

Diameter	5.											
Height	1.0.											
Altitude	1288.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	10.95	10.60	5.10	8.30	3.30	6.00	6.20	11.60	7.80	4.20		
February	10.10	1.17	6.45	.55	11.50	2.80	9.00	3.60	7.40	2.80		
March	.95	5.75	3.00	3.65	2.15	4.70	2.20	4.10	4.20	6.70		
April	5.25	6.25	3.40	3.30	4.65	1.30	4.90	1.95	3.70	3.95		
May	2.95	5.85	2.60	4.90	1.25	1.90	2.50	4.80	1.30	2.10		
June	8.30	1.95	3.64	3.25	6.15	4.60	3.90	8.10	5.55	0.85		
July	8.10	5.70	6.20	3.70	3.95	7.00	3.60	7.10	10.40	7.90		
August	5.90	2.85	5.60	8.70	3.80	5.05	3.10	5.30	2.60	5.95		
September	3.40	11.75	1.65	6.70	10.90	7.30	3.60	3.70	2.80	11.45		
October	5.05	10.55	6.72	12.40	14.30	8.55	2.55	19.55	2.90	4.45		
November	13.14	5.75	3.05	2.80	6.10	7.95	1.90	9.50	11.50	10.60		
December	6.30	4.70	0.75	10.80	5.20	9.75	3.35	8.60	3.90	10.10		
TOTALS	80.39	71.57	+8.06	69.05	73.25	66.90	46.80	87.90	64.05	71.05		

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	Parish Church.	Distance from gauge
1931			Clitheroe	9½ mds	SSE	Slaidburn	3½ mds SE

BRITISH RAINFALL ORGANIZATION, EXHIBITION ROAD, LONDON, S.W.7.

Station No. 3081

RAINFALL at Slaidburn (Middle Knott)

41

County of West Riding

Observer S. H. Kang Esq. C.E.

River Basin Ribble - 2

Type of Gauge Standard British 1928 249.6

Annual Average 27.5 in. based on 5 years obs. un-weighted. Period of average 1881-1912 Ref. S

File No. 60553/26

Diameter	5		573	716							
Height	1	0			1						
Altitude	1288			41							
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	1.10	8.70	10.15	10.80	6.30	7.20	5.60	14.02	4.48	7.48	
February	6.76	(2.50)	3.80	3.20	10.10	6.20	1.13	4.60	4.87	7.60	
March	4.10	4.20	2.15	3.90	(5.80)	1.70	8.15	(4.25)	3.92	4.68	
April	2.80	3.70	4.10	3.95	(3.90)	1.80	5.30	3.10	6.80	4.33	
May	4.70	5.90	5.30	5.50	4.40	1.95	2.86	(3.52)	2.79	1.90	
June	1.40	1.10	5.80	5.40	7.10	4.40	2.98	8.83	1.19	5.26	
July	2.45	6.10	6.20	5.30	4.40	6.30	5.28	3.86	3.88	7.09	
August	9.20	7.60	10.00	4.75	3.60	(0.81)	.06	(6.28)	4.00	18.09	
September	3.05	6.60	7.20	9.90	4.70	9.90	5.14	7.35	3.65	12.18	
October	8.30	9.35	5.55	9.40	8.50	1.45	1.14	5.83	7.89	8.18	
November	3.10	2.40	4.40	10.70	.60	12.90	6.91	4.42	8.80	7.22	
December	7.70	6.20	5.30	6.40	3.65	7.55	4.20	5.93	7.65	8.17	
TOTALS	54.65	64.35	69.95	76.20	63.05	72.16	48.75 n.p.	71.99	59.92	79.68 N.P.	

1942 February corrected for snow. 14004 00204

1945 March & April approximated

1946 August estimated - gauge leaking

1947 n.p. 20004

12204

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1941			Gladhouse	9 1/2 m.	S.S.E	Slaidburn	3 1/2 m.	S.E

Station No. 3081

51

RAINFALL at Slaidburn (Middle Knoll)

County of West Riding Yorks. Observer G. McKay Esq., C.E.

River Basin. Ribble - 2

Hydro Water Board (1/4/60)

Type of Gauge. Bradford

Annual Average 67.2 in. based on 5 years obs. un-weighted. Period of average 1881-1915 Ref. S.
" 73.92 " " 5 " " 1953-57 " " 1916-50
File No. 660553/24

20121/24

Diameter	5"			573	716							
Height	1' 0"					1						
Altitude	1288'					51						
Year	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	
January	6.86	7.85	3.85	6.82	5.68	6.5+	8.05	7.87	3.85	8.47		
February	4.76	4.06	2.86	5.12	1.82	1.47	5.42	12.12	2.39	7.41		
March	6.72	5.20	1.69	4.82	1.67	1.81	6.69	2.74	3.00	1.86		
April	4.22	4.60	3.92	1.98	5.17	2.67	1.05	2.82	3.55	5.34		
May	2.30	4.64	3.80	4.11	5.66	3.82	3.26	7.87	2.14	2.35		
June	1.38	6.80	3.26	6.48	4.92	4.31	2.32	3.40	4.22	3.40		
July	4.70	7.20	9.20	13.48	1.18	573	8.06	5.00	6.72	16.45		
August	6.44	9.10	8.31	10.12	1.04	16.67	10.09	6.79	1.00	6.30		
September	5.71	7.50	9.87	10.89	5.10	4.62	2.00	6.59	.96	5.40		
October	2.67	6.85	2.55	16.37	4.61	4.98	10.99	6.68	9.65	4.65		
November	11.78	3.25	8.88	12.06	3.22	3.38	3.30	2.92	8.72	12.74		
December	16.90	5.80	3.90	14.30	6.80	7.90	10.38	6.13	15.35	9.59		
TOTALS	74.44	72.85	62.09	106.50	46.87	63.90	81.55	70.93	61.55	83.96		
	M.	M.	M	M	M.N.P.	M	M	M	M	M		

1951. too low but except.

Ins. op. 10/53. S. sound. Site very exposed on all sides. To be terminated.
1955. M.P. Too Low. - See 1953 inspection report.

1958 np 0/e

1959: np 0/e

1960 np 0/e

Position of Station on Ordnance One-Inch map : No. of Map National Grid Reference SD 653 543

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Parish Church.	Distance from gauge.
1951			Clitheroe	9 1/2 mi S SE	Slaidburn	3 1/2 mi SE

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
	v	v	v	v np 7, 49	