

RAINFALL AT CentervilleObserver..... Bryles .....

Rain } By.....

Gauge } Diameter.....in.

Height above Ground, 2 ft. 0 in.Above Mean Sea Level, 222 ft.

YEAR.....									1868	1869	MEANS.
January.....									2.90	4.30	
February.....									4.20	8.30	
March.....									6.30	2.00	
April.....									2.00	3.40	
May.....									1.00	3.20	
June.....									1.0	2.10	
July.....									3.0	1.60	
August.....									5.40	4.20	
September.....									2.40	<del>10.10</del> <del>7.94</del>	
October.....									9.30	5.80	
November.....									4.40	7.80	
December.....									11.60	5.40	
TOTALS.....									49.90	<del>58.80</del> <del>28.74</del>	

C C

1869 Correction sent by R. H. Swindlehurst 286.80

RAINFALL AT Entwistle

Lat.....

Lon.....

County of Lancashire

Rain Gauge, by.....

Observer

H. Bagley Esq.

Diameter.....					6			7		6	
Height.....	0	0			1						
Altitude.....	700				700						
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	5.50	7.60	7.60	6.60	6.30	6.50	3.10	8.00	5.40	1.80	5.240
February.....	7.90	5.00	4.30	.80	2.40	1.20	6.00	7.50	2.10	3.80	3.500
March.....	4.00	1.80	6.10	4.00	6.30	1.30	5.00	4.00	2.50	2.80	3.780
April.....	2.50	3.80	3.50	30	2.00	1.30	3.00	2.60	2.40	2.40	2.380
May.....	2.40	2.00	3.50	3.50	2.20	2.70	70	3.90	6.00	2.20	2.890
June.....	<del>2.10</del> 3.50	3.30	5.70	5.20	1.00	4.90	4.70	2.80	3.60	6.70	3.800
July.....	2.00	6.70	5.70	7.50	4.60	5.80	4.30	7.20	1.70	8.80	5.430
August.....	3.50	2.20	5.20	6.50	8.50	3.30	6.90	6.10	7.40	9.90	5.930
September.....	4.30	4.70	9.80	3.50	5.70	6.40	4.80	4.50	7.30	4.60	5.560
October.....	<sup>+</sup> 17.10	<sup>+</sup> 7.00	7.10	7.60	8.30	7.10	3.90	6.90	6.20	4.60	7.580
November.....	4.70	1.80	6.10	6.00	7.30	5.70	4.30	8.60	2.90	1.50	4.890
December.....	4.00	4.10	4.50	2.20	3.70	2.50	8.50	5.60	2.80	2.50	4.040
TOTALS.....	<del>54.00</del> 55.40	44.00	69.10	51.50	58.30	48.70	55.20	67.70	50.30	51.60	55.040

1870 Correction sent by R. H. Swindlehurst 28.6.80

# RAINFALL AT *Catwistle*

80

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of \_\_\_\_\_

*Lancashire*

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

Observer \_\_\_\_\_

*R. H. Snoddenhurst, Esq.*  
C.E.

*Swell. 3*

Diameter ....	7											
Height .....	1.0											
Altitude ....	700											
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.	
January ....	2.90	1.10	5.00	7.50	5.70	3.50	7.00	2.20	2.90	2.50	4.030	
February ....	4.10	7.60	3.40	3.70	4.00	4.90	90	1.70	1.30	3.60	3.520	
March .....	3.10	6.10	5.60	1.40	3.20	2.90	4.10	2.40	3.90	2.60	3.530	
April .....	3.40	1.80	6.50	2.50	1.50	2.70	2.80	2.10	2.50	2.70	2.850	
May .....	2.80	6.80	2.90	1.30	2.60	2.20	4.70	3.00	.80	4.40	3.150	
June .....	4.20	2.80	7.80	4.60	1.20	4.70	3.20	.80	2.60	1.10	3.300	
July .....	6.20	7.20	8.00	4.30	5.90	2.40	5.60	1.60	8.70	4.70	5.460	
August .....	2.50	7.80	6.30	4.50	2.10	2.50	3.70	1.80	5.30	8.50	4.500	
September....	5.50	3.20	3.00	9.40	4.00	7.90	5.10	6.90	2.10	5.80	5.290	
October .....	3.10	3.90	4.50	6.50	3.50	8.40	6.00	2.90	2.90	4.30	4.600	
November....	7.20	6.00	9.60	5.40	1.80	5.20	4.20	2.30	8.10	2.80	5.260	
December ....	8.50	7.50	4.70	5.60	7.00	3.00	7.40	3.60	3.60	5.70	5.660	
TOTALS ....	53.50	61.80	57.30	56.70	42.50	50.30	54.70	31.30	44.70	48.70	51.150	

# RAINFALL AT

Entwistle

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of Lancashire

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

Observer R. H. Smiddehurst Esq. C.E.

Jewell 3

Diameter ....	7										
Height .....	10										
Altitude ....	700										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January ....	7.80	3.50	5.20	1.70	4.00	3.60	2.70	1.80	4.80	4.23	
February ....	.40	.50	3.70	7.30	7.30	.40	2.00	3.70	4.20	2.12	
March .....	5.40	2.40	.80	1.80	5.60	5.70	9.70	5.70	3.10	3.20	
April .....	1.50	2.40	1.50	.50	2.10	2.50	2.20	3.90	2.10	5.78	
May .....	3.20	4.10	5.00	2.30	3.90	1.20	.50	2.40	3.60	3.65	
June .....	4.30	2.50	4.30	3.00	3.90	2.30	3.50	5.60	3.80	1.19	
July .....	4.60	4.90	3.80	3.90	5.20	6.40	3.80	2.20	1.00	3.71	
August .....	6.10	12.20	6.40	4.00	6.80	5.90	3.60	6.00	7.80	1.85	
September....	2.30	4.70	5.90	7.30	.50	2.00	11.40	6.60	1.60	3.04	
October.....	6.00	6.00	5.90	5.80	5.20	5.70	6.60	3.20	4.90	4.42	
November....	13.90	5.40	3.90	5.40	5.60	4.30	2.00	4.80	4.00	2.97	
December ....	.50	12.00	3.80	5.90	5.90	5.50	7.80	7.70	6.50	4.01	
TOTALS . . .	56.00	60.60	50.20	48.90	56.00	45.50	55.80	53.60	47.40	49.17	52.31

1899 discontinued. On New Gauge.

new gauge used



# RAINFALL AT

Entwistle

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of

Lancashire

Inwell 3

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

Observer

R. H. Swindlehurst Esq. & Co.

New Gauge

Diameter ....				5							
Height .....				10							
Altitude ....				700							
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January ....				1.99	4.48	3.83	2.40	1.75	4.28	8.23	
February ....				6.52	6.43	.36	1.84	3.62	4.44	2.12	
March .....				1.63	4.96	5.25	8.57	5.39	3.34	3.20	
April .....				.68	2.44	2.44	2.37	3.74	2.25	5.78	
May .....				2.40	4.05	1.41	.69	2.54	3.74	3.65	
June .....				3.08	3.84	2.46	3.46	5.58	4.06	1.19	
July .....				3.94	5.20	6.38	3.77	2.32	1.12	3.71	
August .....				4.27	6.01	5.83	3.49	6.05	7.66	1.85	
September....				6.64	.56	2.05	10.85	6.40	1.70	8.04	
October .....				5.88	5.04	6.24	6.42	3.19	4.98	4.42	
November....				4.55	5.54	4.11	2.00	4.61	4.17	2.97	
December ....				5.57	5.40	5.36	7.30	7.49	6.52	4.01	
TOTALS . . .				47.15	53.95	45.72	53.16	52.68	48.26	49.17	

RAINFALL AT Entwistle Ln

Lat. .... Lon. .... County of Lancashire South  
Sunder Rain Gauge, by Casell Observer R. H. Swindley Eng. C.E.  
Irwell 3 Nov 89 Levin Mitchell Eng. C.E.

Diameter ..	5										
Height ....	1 0										
Altitude ..	700										
Year ....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	8.25	3.90	5.28	5.10	5.31	2.70	7.50	2.54	4.56	3.00	4.814
February ..	4.40	2.04	2.24	5.16	4.60	3.00	4.53	4.88	4.90	3.06	3.881
March ....	.76	4.95	3.50	6.27	2.96	4.56	4.62	2.86	4.00	3.98	3.846
April .....	3.51	3.54	3.46	2.57	3.41	4.33	2.61	2.49	2.83	4.34	3.309
May .....	2.32	1.60	4.02	5.23	3.18	.80	4.73	5.39	3.89	3.14	3.430
June .....	4.29	2.77	1.75	2.42	1.80	2.98	2.07	10.17	2.26	3.69	3.430
July .....	3.06	3.17	5.07	4.75	2.10	2.87	2.54	3.96	6.33	7.58	4.143
August ....	6.08	3.50	4.34	7.32	5.21	6.31	4.82	5.74	4.31	3.66	5.130
September ..	3.24	1.43	2.74	6.62	2.07	3.25	2.04	1.58	5.38	3.99	3.234
October ....	8.22	5.35	6.37	11.89	3.60	4.77	7.92	4.23	2.60	8.07	6.302
November ..	6.10	7.34	3.91	4.76	4.87	5.21	5.16	3.94	4.16	2.33	4.878
December ..	7.67	6.17	4.58	3.71	3.99	1.38	5.80	5.48	4.02	8.40	5.118
TOTALS ..	57.90	45.76	47.26	65.80	43.08	43.16	54.35	53.26	49.34	55.24	51.515

1907 St. Anne's Ch. Norton 2 Miles

+ Inspected

RAINFALL at Entwistle BassinsCounty of South Lancashire Observer Lewis Mitchell Esq C.E.River Basin Mersay Inwell 3Sutton Rain Gauge, by \_\_\_\_\_

Diameter ...	5											
Height .....	1.0											
Altitude ...	700											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	TOTALS
January ...	6.10	1.88	5.01	5.75	4.00	8.08	4.81	3.47	4.62	6.20		76.18 1910
February ...	5.66	6.81	2.52	2.33	3.91	6.40	5.24	1.66	7.31	1.40		15.61
March .....	1.23	2.81	7.46	6.32	6.12	2.40	1.77	3.39	2.13	7.14		14.43
April .....	4.34	4.21	1.07	6.15	1.86	2.47	4.67	2.21	1.21	2.99		11.08
May .....	4.25	2.02	3.45	4.28	3.01	1.78	2.71	2.07	2.90	2.14		9.82
June .....	3.59	4.67	7.65	3.22	2.11	1.79	4.05	3.40	2.67	2.44		12.56
July .....	6.62	.40	5.74	1.27	6.19	4.47	2.98	2.92	4.94	2.15		12.99
August .....	8.32	3.60	9.42	2.40	4.23	5.73	4.03	9.19	4.60	5.14		22.96
September ..	.53	4.95	2.85	2.41	5.65	1.20	3.43	3.60	15.11	3.14		25.28
October ...	3.83	3.96	6.47	2.66	3.35	2.40	9.59	10.54	6.06	3.07		29.26
November ...	6.88	5.79	4.43	6.87	6.97	2.39	4.19	6.58	3.47	4.56		18.80
December ...	5.65	8.97	5.59	4.10	8.00	10.49	3.66	3.11	11.59	9.31		27.67
TOTALS ...	57.00	50.07	61.66	47.76	55.40	49.60	51.13	52.14	66.61	49.68		219.56 1910

+ Imputed

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
	53° 39' 30" N	2° 25' 40" W	Entwistle	1/4 mi	N.E.	St. Anne's Parson	1 1/2 mi	S.S.E



RAINFALL at Entwistle ReservoirCounty of S. LancashireObserver J. H. Hughes Esq. C.E.River Basin Mersey-Truell 3W. of BoltonSnowdon Rain Gauge, by Casella  
L.O. Patt. (126)1930. J.P. Hunsworth, C.E.

Diameter ...	5"											
Height .....	1	0										
Altitude ...	700											
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.	
January ...	5.61	8.55	5.31	5.95	4.69	4.06	7.03	6.20	14.59	2.71	7.33	Totals 72.06
February ...	4.53	6.4	6.53	8.37	1.62	8.06	5.89	2.89	6.17	1.70	5.4	47.24
March .....	4.75	4.21	3.86	2.32	2.16	2.46	3.01	7.18	4.07	2.06	3.15	39.23
April .....	6.69	2.63	2.79	4.15	2.99	3.80	2.12	4.65	1.62	1.71	2.89	36.04
May .....	7.60	3.75	2.57	4.91	6.56	5.43	4.84	2.17	1.39	4.03	4.18	47.43
June .....	3.31	5.4	3.86	1.47	3.75	1.6	3.86	6.41	8.18	2.19	2.80	36.53
July .....	8.01	2.34	5.49	5.45	6.01	2.66	3.92	5.29	2.91	4.46	6.06	52.62
August .....	3.59	6.60	6.56	7.05	10.13	5.50	6.08	8.33	8.19	6.74	8.91	77.68
September...	3.66	1.94	5.84	6.46	6.10	5.90	5.35	8.06	1.25	3.01	4.44	52.01
October .....	1.72	3.48	8.8	8.35	6.49	6.62	5.00	5.99	7.23	9.38	8.67	43.71
November...	2.87	3.73	4.99	7.98	3.42	4.29	8.80	6.60	8.84	10.91	8.99	71.45
December...	4.23	7.53	6.43	6.95	7.12	4.17	2.45	1.68	4.31	10.14	5.50	60.51
TOTALS...	56.57	45.97	55.11	69.41	61.04	53.41	58.35	65.45	68.78	59.06	63.36	656.51
	D	D	D	D	D	D	D	D	D	D	D	466

IX/28 Inspected by Mr. Colless. see green file

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
1920	53° 39' 3"	2° 25' 4"	Entwistle	1/4 mi	N E	St. James' Church	1 1/2 mi	S S E.





RAINFALL at Bolton W.W. (Entwistle)County of South LancashireObserver Bolton Corpn W.W.River Basin Mersey - Irwell - 3

Type of Gauge

Annual Average 51.9 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. Bolton

Diameter	5.										
Height	1.0.										
Altitude	700.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January											
February											
March											
April											
May											
June											
July											
August											
September											
October											
November											
December											
TOTALS	X Terminated										

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

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

RAINFALL at Bolton W.W. (Entwistle) No. 2County of South Lancashire Observer Bolton Corpn W.W.River Basin Mersey-Trent-3Type of Gauge AnemometerAnnual Average 53.8 in. based on 10 years obs unweighted. Period of average 1881-1915 Ref. 1.W.5  
(1939) 53.8 10 74198/27

Diameter	5.											
Height	1.0.											
Altitude	692.		700	692			700			692		
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	Total
January	8.08	6.66	3.51	4.99	3.04	6.57	4.73	7.07	6.77	3.86		55.2
February	6.85	1.5	4.91	4.9	7.96	3.81	7.73	2.70	6.19	3.45		64.2
March	6.6	4.13	3.47	3.70	1.96	4.25	2.20	1.99	2.94	3.59		28.8
April	4.38	4.94	2.44	3.38	4.42	1.41	5.06	1.97	3.62	3.42		34.0
May	3.40	5.81	2.35	5.32	1.80	1.31	2.20	5.19	2.25	1.84		30.4
June	6.67	1.14	3.21	3.36	5.03	5.29	2.38	5.96	4.31	1.15		38.5
July	6.12	4.64	4.18	2.51	2.47	5.50	3.06	6.03	9.99	5.83		50.3
August	6.60	1.89	2.87	5.78	2.21	3.97	3.23	3.59	3.38	2.96		38.4
September	5.68	7.36	1.09	4.88	9.98	6.58	2.37	3.25	1.63	6.09		48.9
October	3.34	10.37	6.15	7.88	11.20	7.09	2.76	13.06	3.13	5.97		70.9
November	10.44	4.63	2.93	2.65	6.10	7.99	2.19	7.44	9.22	10.01		64.1
December	3.07	3.10	1.86	8.61	5.39	6.21	3.72	6.22	4.03	7.00		48.2
TOTALS	65.29	54.82	37.97	53.55	61.56	59.98	41.63	63.97	57.46	54.17		550.0
	D	D	D	D	D	D	D	D	D	D		48.2

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
1931			Entwistle	1/4 m.	NE	Tunstall	1/4 m.	SSE.



Station No. T.F. 2881RAINFALL at Bolton W.D. (Bolwistle)

41

County of South Lancashire Observer Bolton Corps W.D.River Basin Levensay, Liversall - 3Type of Gauge StandardAnnual Average 53.8 in. based on 10 years obs. un-weighted. Period of average 1881-1915 Ref. 1.4.5.File No. 741918/27

Diameter	5"			562	095							
Height	1'0"											
Altitude	692'			41	700		700					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means	
January	1.64	6.85	7.24	7.62	4.84	6.11	4.77	11.91	3.69	4.73		Total 59.40
February	6.14	2.11	3.53	3.00	7.03	8.00	.95	3.93	3.74	6.10		44.53
March	4.04	4.67	1.60	.90	1.94	1.15	7.90	2.46	2.55	3.24		30.47
April	1.88	2.77	3.25	3.54	3.00	1.50	4.68	2.68	5.22	4.28		32.80
May	3.46	4.23	4.04	4.53	4.69	1.99	3.24	2.38	4.08	2.34		34.98
June	.61	.79	5.46	3.74	5.95	4.25	3.56	8.13	1.08	3.01		36.58
July	2.94	6.85	4.06	4.62	3.89	4.38	3.61	2.99	2.38	5.74		41.49
August	4.84	6.53	8.93	4.26	3.79	8.77	.24	6.10	3.79	8.33		58.61
September	1.46	3.38	5.48	7.58	4.11	8.88	4.17	4.04	2.54	10.53		52.79
October	5.80	3.20	4.37	7.25	7.26	1.40	1.27	4.01	5.57	3.97		50.10
November	3.60	1.63	5.39	3.13	.81	9.40	7.08	2.89	7.85	8.30		56.20
December	3.20	6.01	3.48	5.65	4.23	4.95	4.32	5.26	8.58	4.13		69.81
TOTALS	42.72 D	55.68 D	56.83 D	61.88 D	51.54 D	60.78 D	45.79 D	56.77 D	51.07 D	64.70 D		547.76 92.1

17.3.44. Sigsbee's stick gauge record & figures unaltered.  
Dec. 1941. Engineer's stick gauge record.

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			Bolwistle	1/4 m.	N.E.	Bolton	1/4 m.	S.E.

BRITISH RAINFALL ORGANIZATION

Station No. 2881

T.F. 36

RAINFALL at Bolton W.M. (Antwille)

51

County of Lancashire

Observer Bolton W.M. (Antwille)

River Basin Mersey-Trent-3

Type of Gauge Snowdon

Annual Average 53.8 in. based on 12 years obs. un-weighted. Period of average 1881-1915 Ref. 1.W.5

52-54 20 1916-1950

File No. 741918/27

Diameter ...	5"			562	095							
Height ...	1' 0"		12"		1	1'	1' 0"					
Altitude ...	700'				51							
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	Totals
January ...	5.70	5.57	2.42	5.44	3.35	6.54	4.51	5.11	3.87	7.81	50.32	
February ...	3.71	2.29	1.83	4.19	2.85	1.28	3.99	9.01	.86	4.45	34.46	
March ...	5.70	3.10	3.08	3.53	2.52	1.93	4.75	2.65	2.48	1.59	31.33	
April ...	3.11	4.70	3.80	1.09	3.65	3.49	.96	2.00	3.88	3.06	30.34	
May ...	2.33	2.98	2.74	3.39	5.46	2.32	2.25	5.72	1.46	2.81	31.46	
June ...	1.68	4.76	3.28	4.15	4.20	3.23	2.54	4.33	3.09	1.62	33.38	
July ...	4.07	2.85	7.38	8.59	1.46	7.24	7.71	4.38	5.49	10.20	59.37	
August ...	5.97	6.27	5.57	7.32	1.88	13.50	7.95	4.45	.56	6.52	60.49	
September ...	4.30	5.75	6.00	6.65	5.21	4.35	9.35	5.34	.46	4.08	51.49	
October ...	.81	6.06	2.39	10.55	3.26	3.98	8.26	5.83	6.19	5.55	52.88	
November ...	9.91	3.35	6.88	8.92	2.97	2.22	2.58	2.46	6.06	9.05	54.40	
December ...	11.63	5.30	2.33	8.33	4.22	5.26	6.57	5.43	11.23	6.38	69.68	
TOTALS ...	58.92	52.98	47.65	72.15	44.03	55.34	61.42	57.76	45.63	63.72	559.60	

Ins. 7.10.53. G. sound. 40' to E ground drops into 15' culvert. Canifer plantation  
 other side of culvert 100 yards from G. Ground drops slightly  
 to fence 90' west then rises to Turbar heights. 12' pole 15' SE.

Position of Station on Ordnance One-Inch map:

No. of Map.....

National Grid Reference SD724173

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Antwille	1/4 m. N.E.	Antwille	1 1/2 m. S.E.

Summary of Earlier Records from 10-year Sheets:

1916-1950, P-accepted

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
		C1928 A28	✓ ✓	✓ ✓	