

RAINFALL AT Morland [Pennith]

Lat. 54° 35' N

Lon. 2° 45' W

County of Westmoreland

Rain Gauge, by

Observer Col. F. Markham

Eden - 1.

Wm Markham

Diameter ..			5								
Height			10								
Altitude ..			455T								
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..											
February ..			2.17	6.09	5.56	1.41	5.60	1.23	2.70	4.68	
March			1.27	5.78	3.30	2.82	3.33	3.11	3.83	1.97	
April			2.07	7.99	2.05	3.53	2.15	2.89	4.12	2.45	
May			1.93	1.26	2.56	3.06	.94	2.02	2.00	2.72	
June			2.61	2.63	2.97	.62	6.19	4.55	2.35	1.94	
July			1.38	.95	1.78	1.80	.72	4.40	1.50	2.18	
August			3.51	3.23	1.52	1.35	1.21	1.72	2.85	3.97	
September ..			1.95	4.02	4.33	3.38	4.42	2.65	4.23	3.22	
October			1.80	4.62	1.12	2.97	1.08	.38	2.61	2.16	
November ..			2.98	8.96	1.25	2.41	5.89	4.54	2.25	5.58	
December ..			2.59	2.39	2.96	3.97	3.41	3.34	2.83	1.52	
			5.25	3.24	4.05	1.19	3.00	6.07	2.79	5.37	
TOTALS ..			29.51	51.16	33.45	28.51	37.94	36.90	34.06	37.76	

1902 Morland Church 150 yards N

Chelburn Station 2 1/2 miles

1905 Gauge is on a lawn shut in on all sides by green hedges 2 sides
 & home other two sides average height about 25 ft but distance
 to base of any side is as much or greater than this

RAINFALL at Morland [Penrith]County of Westmorland Observer Mrs. M. F. MarkhamRiver Basin Eden 1

Rain Gauge, by _____

An. Av. 1916-50 36.84

Diameter ...	5										
Height	10										
Altitude ...	456										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	4.46	1.90	4.69	3.90	2.73	3.39	4.40	1.95	4.43	3.82	
February ...	6.40	3.87	2.94	2.75	6.24	6.60	14.28	.93	3.58	.75	
March	2.55	1.32	4.24	5.80	3.70	1.15	2.11	2.15	1.38	3.03	
April	3.08	1.94	.60	5.95	1.52	2.00	2.52	2.24	1.02	1.81	
May	1.82	2.14	1.47	1.69	1.84	1.61	2.65	2.79	2.09	1.65	
June	1.54	3.95	5.00	1.87	1.86	.72	3.18	2.18	1.19	1.79	
July	4.60	.66	3.40	.89	3.59	4.06	3.97	1.13	4.18	.95	
August	5.82	2.73	4.72	1.25	2.23	2.52	2.48	7.38	4.04	2.92	
September ..	.31	4.27	1.74	2.37	2.11	1.14	1.76	2.26	8.97	1.44	
October ...	2.30	3.18	3.57	2.55	1.07	.86	7.24	4.67	4.99	2.24	
November ...	2.04	4.90	3.60	3.35	5.41	1.40	4.32	2.82	2.99	2.95	
December ...	3.34	8.93	4.89	3.57	7.71	7.23	2.56	1.60	4.15	6.15	
TOTALS ...	39.30	39.79	40.86	36.94	40.01	32.68	41.47	32.10	43.01	39.53	
	3	2	3		2	3	2	2	3	2	

1913 House 25 ft high 25 ft N+E
Hedge 25 . . . 25 . . . S+N

1916 "g. is on lawn shut in on all sides by yew hedges on two sides and house on two sides. The average height is about 25 ft but the distance to the base of yew side is much greater than this"

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1911	54.35.	2.45.W	Bleburn	2 km	N	Morland	150 yds	N.

RAINFALL at 51 Penrith MorlandCounty of WestmorlandObserver Miss M. F. Markham
Fred. R. Markham Esq (1922)River Basin Eden 1Shroder Rain Gauge, by
1926 Standard.

An. Av. 1916-50 36.84"

Diameter ...	5											
Height	1	0										
Altitude ...	456											
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930.	MEANS.
January ...	4.49	5.59	3.76	3.23	3.90	5.27	4.82	4.59	7.99	.87	6.61	
February ...	2.84	.09	4.20	5.73	.85	4.67	3.38	1.64	4.09	.63	.25	
March	6.13	4.48	2.69	1.74	.90	1.34	1.70	3.65	4.09	.14	3.05	
April	3.58	.73	3.38	3.08	2.04	3.29	1.87	2.50	.92	1.37	1.79	
May	6.10	2.04	.98	2.63	4.51	4.33	1.80	2.26	1.37	2.09	2.24	
June	1.00	.27	1.81	.71	1.37	.29	2.95	2.44	5.00	1.63	1.51	
July	5.41	3.07	3.85	2.83	3.50	1.90	2.70	4.23	2.55	3.73	5.42	
August	1.42	5.02	2.84	6.49	1.84	3.61	3.12	6.81	6.79	3.42	6.25	
September...	2.02	1.38	3.00	3.46	5.19	4.11	3.94	5.81	1.40	1.74	5.43	
October	1.94	2.07	1.36	6.98	3.34	4.35	2.63	4.56	6.67	4.82	5.80	
November...	3.08	1.85	1.68	4.68	2.46	1.60	6.62	2.41	6.08	6.58	4.19	
December...	3.81	4.06	7.88	4.17	7.56	4.31	.82	1.51	2.63	7.74	4.89	
TOTALS...	41.82	30.65	37.13	45.73	37.46	39.27	36.35	42.41	49.58	34.76	44.43	
	D	D	D	D	D	D	D	D	D	D	D	

(1922) Gauge in centre of a gully measuring 80 ft. each side; ledges & buildings 10-20 ft. high all round.

20/9/27 Inspected. 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. W.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1920	54° 35' 40"	2° 45' 37"	Bilbourn	2 1/2 mi	N	Morland	1307 yds	N

RAINFALL at Morland HallCounty of WestmorlandObserver W. Gordon Shorrocks Esq.River Basin Eden 1.~~1879~~ Rain Gauge, by Britannia

No. 1929?

Ann. Av. 33.45" 1916-50

Diameter ...									5"		
Height									1' 0"		
Altitude ...									475		
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930 MEANS.
January ...									6.63	.74	5.63
February ...									5.74	.49	.26
March									5.77	.14	2.45
April79	1.33	1.62
May									1.32	1.80	1.86
June									4.66	1.55	1.27
July									2.54	3.81	5.16
August									6.18	3.32	6.03
September...									1.44	1.68	2.26
October.....	From Warton Hall & Lancs.								6.03	4.55	5.41
November...									5.57	5.82	5.69
December...									2.20	6.34	4.89
TOTALS...									44.87	31.57	40.53

Tree 50 ft. high 70 ft. N. & S.

House 40" x 65" W.

1930 Inspected June. Gauge sound but measure real incorrectly. New tapes measure purchased July 1930. Exposure best available but somewhat over-sheltered by trees except to East.

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
			Lancaster	3 mls.	E.N.E.	Morland	1/2 mil.	W.

RAINFALL at MorlandCounty of WestmorlandObserver F. R. Markham, Esq.,River Basin Eden - 1.Type of Gauge GlanisherAnnual Average 35.6 in. based on 27 years obs. un-weighted. Period of average 1881-1915 Ref. 5

662699/26.

Diameter	5.										
Height	1.0.										
Altitude	455.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.23	7.15	5.39	4.68	2.10	5.29	4.05	5.39	5.35	1.13	
February	3.10	.13	3.58	.05	4.75	2.62	4.93	1.24	3.50	1.21	
March	.79	2.86	2.00	2.31	1.22	1.90	1.81	1.74	3.40	3.12	
April	2.34	3.26	1.08	3.38	3.99	.70	2.01	.30	.97	1.56	
May	2.26	3.20	3.30	2.78	.76	1.36	3.08	2.52	.70	1.37	
June	4.08	2.30	2.57	1.52	3.92	3.37	1.15	2.31	3.19	1.06	
July	3.71	5.46	2.10	1.60	1.16	4.00	2.71	4.53	3.60	4.17	
August	3.20	1.01	1.58	3.03	1.75	1.48	2.33	2.32	2.60	1.20	
September	1.60	3.77	1.80	3.51	5.91	5.08	2.44	1.62	1.08	3.32	
October	2.14	6.62	3.56	6.15	6.24	3.80	1.64	3.79	2.32	5.16	
November	7.58	2.05	1.82	.41	3.53	3.94	.54	6.39	5.00	4.14	
December	2.56	4.65	.46	6.33	2.32	6.73	3.48	4.19	1.51	3.45	
TOTALS	36.59	42.46	29.24	35.75	37.65	40.27	30.17	43.54	33.22	30.89	
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

1932. Gauge in centre of square with 80 ft sides, having 15-20' trees & buildings all round.

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.			<u>blithum</u>	2½m	N.	<u>Morland</u>	155yds.	N.W.

RAINFALL at Morland Hall,County of Westmorland, Observer W. G. Shorrocks, Esq.,

River Basin.....

Type of Gauge LondonAnnual Average 33.45 in. based on 8 years obs. un-weighted. Period of average 1916-50 Ref.....
Low. 815972/28.

Diameter	5.										
Height	1.0.										
Altitude	475.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	2.90	7.00	3.85	3.88	2.00						
February	2.62	.15	2.43	.08	4.11						
March78	2.68	1.70	1.94	1.19						
April	2.10	2.80	1.17	3.20	3.50						
May	1.99	3.06	3.10	2.52	.77						
June	3.63	2.01	2.63	1.38	3.34						
July	4.02	5.23	2.01	1.65	1.07						
August	2.92	.97	1.52	3.03	1.59						
September	1.52	3.61	1.69	3.17	5.69						
October	1.94	6.12	3.37	5.71	5.79						
November	6.45	1.85	1.81	.42	3.29						
December	2.31	3.71	.48	5.52	2.24						
TOTALS	33.18	39.19	25.76	32.50	34.58	N.R.					

1931. Trees 50' high 70' N. Open E. Trees 50' high 70' S. House 70' high 65' W.

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.			Temple Sowerby	3m	E.	Morland	1m	W.

Station No. 3687RAINFALL at Morland

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County of WestmorlandObserver J. R. Mansham Esq.River Basin Eden - 1Type of Gauge GlaisherAnnual Average 35.6 in. based on 27 years obs. un-weighted. Period of average 1881-1915 Ref S36.8426 yrs.1916-50File No. 662699/26

Diameter	5"										
Height	1' 0"										
Altitude	455'										
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	75	3.11	5.88	3.51							
February	5.62	1.84	2.17	1.45							
March	2.47	3.02	.95	1.33							
April	.49	2.62	2.07	1.06							
May	2.25	2.95	4.65	1.06							
June	.63	.62	2.42	2.18							
July	1.51	2.22	2.60	3.89							
August	5.01	3.10	6.17	1.87							
September	1.03	3.53	3.15	4.19							
October	4.37	3.65	4.78	3.16							
November	2.32	1.25	2.14	6.94							
December	1.67	5.31	2.73	4.32							
TOTALS	28.12	33.22	39.71	35.46	N.R.	N.R.					

1941 gauge in centre of square with 80' sides, with two 18'-20' high and buildings all round.

1946 (20/4) Gauge leaking - minor can. No record for 1945

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			Blunham	2 1/2 miles	N.	Hotland	155 yds	N.W.

BRITISH RAINFALL ORGANIZATION