

RAINFALL at Helenburgh (Blainnaire) No 1<sup>B</sup>County of Dumblarton Observer J. H. Stirling, C.E.River Basin 3. Clyde - GovanType of Gauge Glaisher

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

Temporary chart to No 1 g. 5326/4

Diameter			8"								
Height			1' 0"								
Altitude			567'								
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January											
February											
March											
April											
May											
June											
July											
August											
September			C								
October			5.03								
November			4.98								
December			2.22	#							
TOTALS			imp								

1934 Accident to g. in Jan. Feb 182183/35 min 73A.

Station terminated 10/30 (see enc. 45A 8-727947/38)

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
1933			Helenburgh	3 1/4 m	S	Rhu	3 1/4 m	S.W.

RAINFALL at Helenburgh (Blairrain N°1)County of Dumfries Observer J.N. Stirling, C.E.River Basin 3- Clyde-LowerType of Gauge Glaisher

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

Diameter .....			8"								
Height .....			1' 0"								
Altitude .....			575								
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....			7.40	10.55	5.27	5.89	9.43	9.94	6.47	(2.90)	
February .....			7.20	1.20	8.25	4.68	6.48	6.04	7.84	(3.60)	
March .....			4.66	4.23	3.03	4.40	4.51	7.38	5.74	(4.80)	
April .....			4.17	4.74	6.24	2.46	3.43	1.02	3.74	(4.50)	
May .....			4.96	5.74	1.08	2.78	2.01	5.74	1.93	1.65	
June .....			3.44	4.45	5.32	3.68	4.78	7.41	3.98	.85	
July .....			8.40	2.90	4.00	6.76	4.82	7.83	7.85	3.65	
August .....			6.73	5.82	3.61	5.68	5.28	3.98	3.68	4.93	
September .....			1.30	7.93	8.97	6.06	4.97	7.32	4.78	4.73	
October .....			5.22	12.10	12.46	7.14	5.09	12.24	4.78	7.63	
November .....			4.61	3.32	6.40	5.68	1.45	11.91	10.73	8.87	
December .....			2.18	11.63	7.14	9.78	5.45	9.94	5.63	7.83	
TOTALS .....			60.27	74.61	71.77	64.99	57.70	90.75	67.15	(55.94)	

1940 Jan - April estd. from nearby stations.

1940 New measure supplied.

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
			Helenburgh	3 1/4 m	S	Rhu	3 1/2 m	S.W.

RAINFALL at Helenburgh (Blainain) No.2.County of Dumkanton Observer J. H. Stirling, C.E.River Basin B. Clyde-LevenType of Gauge Glaisher Standard (p.o. 1936)

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

Diameter	.....			5'								
Height	.....			1' 0"								
Altitude	.....			1250'								
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....			6.40	9.05	5.10	6.26	9.93	9.70	6.30	(3.00)	
February	.....			5.33	1.28	8.10	4.60	6.40	6.30	7.30	(3.70)	
March	.....			3.73	3.52	2.90	4.60	4.30	7.60	6.10	(4.90)	
April	.....			3.77	4.32	4.90	2.40	4.00	1.10	4.10	(4.70)	
May	.....			4.43	5.20	.98	2.90	3.10	6.10	1.90	1.80	
June	.....			3.90	4.90	6.22	3.50	5.00	7.80	4.90	.90	
July	.....			7.30	3.30	3.60	7.20	5.20	8.20	8.10	3.80	
August	.....			6.20	6.30	4.05	6.40	6.10	4.20	3.80	4.80	
September	.....			1.10	8.40	9.55	5.90	5.70	7.60	4.90	5.00	
October	.....			4.34	11.20	12.30	6.59	5.70	11.20	4.70	8.00	
November	.....			4.56	3.10	6.28	5.78	1.60	12.30	11.10	9.20	
December	.....			2.05	11.70	6.76	9.40	6.10	9.98	6.10	8.20	
TOTALS	.....			58.11	72.27	70.74	65.53	63.13	92.08	68.40	(56.00)	

1940 Jan - April estd from nearby stations.

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
1933			Helenburgh	4 m	S.	Rhu	4 m	S.W.

RAINFALL at Helenburgh (Blairmain) No 3County of Dumfries Observer J. H. Stirling, C.E.River Basin 3 - Clyde - LevenType of Gauge Swyden. M.O. (1934)

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

Diameter .....			5"								
Height .....			1' 0"								
Altitude .....			1580'								
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....			5.80	8.45	4.90	6.26	9.83	9.60	6.20	(3.00)	
February .....			5.20	1.57	7.90	4.70	6.40	6.30	7.20	(3.80)	
March .....			3.53	4.23	2.50	4.80	4.40	7.60	6.10	(5.00)	
April .....			3.87	4.53	5.10	2.20	4.00	1.10	4.10	(4.80)	
May .....			4.85	5.10	1.08	3.10	3.30	6.30	1.90	1.80	
June .....			3.90	5.10	6.42	3.50	5.10	7.80	4.00	.90	
July .....			7.80	3.50	3.90	7.30	5.30	8.30	8.00	3.80	
August .....			6.50	6.40	4.15	6.50	6.30	4.20	3.90	4.80	
September .....			1.20	7.80	9.45	5.90	5.80	7.50	4.90	5.10	
October .....			4.64	11.30	12.30	6.59	5.80	11.70	4.70	8.00	
November .....			4.36	3.00	6.08	5.78	1.70	12.30	11.20	9.20	
December .....			2.05	11.50	6.66	9.50	6.30	9.98	6.20	8.10	
TOTALS .....			53.20	72.48	70.44	66.33	64.23	92.68	68.40	(58.30)	

1940 Jan - April estd. from nearby stations.

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
1933			Helenburgh	4 1/2 in	S	Luss	4 1/2 in	NE.



Station No. 5326/4

RAINFALL at Helensburgh (Glaishairn) No. 1

41

County of Dumbarton

Observer G. N. Stirling Esq. C.E.

River Basin 3- Clyde - Leven

A.D. Remond (Borough Engineer) 1945.

Type of Gauge Glaisher

Bryd Engineer 1948

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

File No. ....

Diameter	8"				603	182					
Height	1'0"					1					
Altitude	575'					41					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	2.57	(7.50)	7.48	7.94	6.42	8.45	8.43	14.60	13.20	7.05	
February	7.53	(2.75)	7.93	3.68	10.59	4.73	(1.00)	7.27	6.90	4.40	
March	3.62	(4.23)	4.53	2.95	5.23	4.19	(5.50)	7.30	6.80	5.30	
April	2.62	3.24	4.74	4.23	2.75	2.63	12.20	4.30	7.40	5.30	
May	4.93	4.83	4.65	4.33	6.63	2.50	7.44	3.37	3.60	2.30	
June	1.79	2.77	5.73	6.30	6.43	6.34	5.25	7.90	1.79	3.25	
July	4.08	3.83	4.07	5.63	6.39	4.95	7.30	6.46	3.48	4.25	
August	6.78	8.54	9.81	5.35	2.84	(5.54)	0.00	11.90	7.40	4.90	
September	3.53	8.68	5.53	6.13	8.13	(13.10)	8.07	13.00	4.50	13.46	
October	7.25	9.74	11.03	7.71	8.43	0.80	5.01	14.24	10.00	8.55	
November	6.86	1.87	4.06	8.62	1.00	12.36	11.50	7.80	8.40	5.00	
December	4.47	8.17	4.03	8.24	7.34	11.40	3.00	11.60	15.08	2.78	
TOTALS	5603	(6605)	73.59	71.11	72.18	76.97	(74.70)	109.74	88.55	75.54	

1941 Nothing near gauge.

1942 Nothing near gauge.

1942 Jan-Mar extd. gauge unapproachable

1946 Aug-Sept approx. 947

1947 Feb-Mar. ext. for snow

1949 Authorities unwilling to provide transport for inspection.

1950 Inspection requested this year when climatological station at Helensburgh is being done

1951 Aug 19. 18. 9. m. dark gully NW to SW about 100 yds; a fair weather bit rain irregular, 8.3 - 7.7; flat bottom narrow.

70000

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			Helensburgh	3 3/4 ml	S	Rhu	3 1/2 ml	SW.

BRITISH RAINFALL ORGANIZATION

Station No.

5326/5

RAINFALL at Helensburgh (Blairnairn) No. 2

41

County of Dumbarton

Observer

J. M. Stirling, Esq., C.E.

River Basin 28 Clyde - Leven

A.D. Remick (Burgl Engineer) 1945

Type of Gauge

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

File No.

Diameter	5"				6.63	181				X	
Height	1'0"					1					
Altitude	1250'					41					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	<sup>-100</sup> X	(8.00)	7.57	8.10	6.62	8.50	8.00	15.00	9.75	7.00	
February	<sup>-100</sup> X	(3.00)	8.00	3.74	10.80	4.90	(1.00)	8.03	4.40	7.00	
March	<sup>-100</sup> X	(5.00)	4.60	2.85	5.30	4.00	(6.00)	8.00	3.50	4.40	
April	<sup>-100</sup> X	3.60	4.80	4.30	2.80	2.70	12.00	5.00	6.30	6.00	
May	5.00	4.90	4.80	4.40	6.40	2.10	8.25	2.08	3.80	2.00	
June	1.80	2.90	5.90	6.40	6.50	6.20	6.38	7.50	1.50	3.10	
July	4.20	4.00	4.10	5.70	6.50	4.40	7.70	5.25	4.08	4.00	
August	7.10	8.80	9.88	5.50	3.00	5.60	<sup>0.00</sup> 0.00	12.00	5.80	7.60	
September	3.90	9.00	5.72	6.20	8.20	11.38	7.00	14.00	4.00	12.78	
October	7.40	9.90	11.00	7.80	8.60	1.20	5.05	15.00	9.30	8.16	
November	7.10	2.00	4.20	8.70	1.10	9.60	9.90	6.90	7.46	4.40	
December	4.90	8.90	4.10	8.30	7.40	8.10	2.80	8.90	11.05	3.10	
TOTALS	<sup>-100</sup> -- np	(50.00)	74.67	71.99	73.22 n.p.	68.68 n.p.	74.08 n.p.	107.66 n.p.	70.94 n.p.	72.54 n.p.	

1941 Jan-April gauge unapproachable. 1942 nothing near gauge

1942 Jan-Mar std. G. unapproachable during these months.

1945 n.p. readings identical to those of 5326/6. Obs. asked to check records independently

1946 n.p. low. Not required (1944 missing from this table).

1947 Feb + Mar. est for snow - up low

1948 n.p. low pending inspection

1949 Authority not willing to supply transp. for inspection

1949 n.p. pending inspection.

1950 Inspection requested this year when Helensburgh climat. obs. is being done.

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			Helensburgh	4 mi	S.	Rhu	4 mi	SW.
		70004						

BRITISH RAINFALL ORGANIZATION

Station No. 5326/6

RAINFALL at Helensburgh (Glasgow) No. 3

41

County of Dumbarton

Observer J. N. Stirling, Esq., C.E.

River Basin 3 - Clyde - Lochar

A.D. 1945 (Borough Engineer) 1945

Type of Gauge M.O.

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

File No.

Diameter	5"				663	180					
Height	1'0"					1					
Altitude	1580'					41					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	* -100	(8.00)	7.69	8.10	6.63	8.50	6.60	14.50	6.00	8.00	
February	* -100	(3.00)	8.10	3.74	10.85	4.80	(1.00)	9.00	5.10	6.30	
March	* -100	(5.00)	4.60	2.95	5.30	4.00	5.60	9.30	4.70	5.00	
April	* -100	3.60	4.90	4.30	3.00	2.80	6.00	3.40	7.00	6.00	
May	5.10	6.00	4.80	4.40	6.40	2.00	4.50	1.09	2.70	2.40	
June	180	2.90	5.90	6.40	6.50	6.00	4.50	8.00	1.76	2.80	
July	4.20	4.00	4.10	5.70	6.50	4.10	5.50	6.00	5.00	7.10	
August	7.20	8.90	9.88	6.50	3.00	5.00	0.00	11.00	6.30	7.40	
September	3.90	9.00	5.72	6.20	8.20	9.70	6.00	12.50	3.80	12.45	
October	7.50	9.90	11.00	7.80	8.60	0.59	4.80	14.00	9.40	7.92	
November	7.20	2.00	4.20	8.70	1.10	4.40	9.20	5.50	8.00	4.80	
December	5.00	9.00	4.10	8.30	7.40	4.20	3.00	10.00	10.06	3.09	
TOTALS	-100 np.	(70.30)	74.99	72.09	73.48	56.09 n.p.	56.70 n.p.	104.29 n.p.	69.22 n.p.	73.26 n.p.	

1941 up imp Jan-April snow rendered gauge unapproachable.  
 1942 Jan-Mar cold. Gauge unapproachable during these months.  
 1945 n.p. Most readings identical to those of 5326/5. See note on 5326/5.  
 1946 n.p. low. To be replaced (1946 n.p. gauge temp. water).

1947. Felt est for snow - up low.

1948 n.p. for finding inspection.

1949 Authorities unwilling to provide inspection with transport.

1949 n.p. for finding inspection.

1950 Inspection this year (1951)

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			Helensburgh	4 1/2 m	S.	huss	4 m	N.E.

BRITISH RAINFALL ORGANIZATION



Station No. 5326/4

RAINFALL at Helensburgh (Blairnarn) No. 1

51

County of Dunbarton Observer Burgh Engineer

River Basin Clyde-Leven - 3

Type of Gauge Glaisher

Annual Average 69.7 in. based on 21 years obs. un-weighted. Period of average 1881-1915 Ref. P.B. 628

File No.

Diameter ...	8"				663	182					
Height ...	1'0"					1					
Altitude ...	575'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	7.26	14.50	3.30	8.25	(4.60) 9.30	3.39	8.23	6.76	2.71	6.45	
February ...	5.02	3.50	3.05	7.83	7.11	2.36	5.25	3.80	3.14	5.12	
March ...	5.17	5.16	2.43	4.93	4.55	3.72	7.00	2.10	5.89	4.44	
April ...	3.54	3.44	3.84	4.17	3.51	2.10	3.25	2.40	4.46	6.00	
May ...	3.16	2.02	4.85	5.40	4.48	4.20	3.31	5.00	3.00	4.00	
June ...	2.57	4.03	1.75	4.70	4.38	3.15	2.96	3.60	8.16	4.35	
July ...	3.96	4.47	6.33	5.19	4.51	6.15	7.02	6.00	9.10	6.12	
August ...	6.78	5.73	5.29	6.60	2.16	6.60	5.00	9.00	1.94	4.63	
September ...	5.12	4.15	6.25	10.72	1.13	6.23	3.35	7.25	2.10	3.66	
October ...	2.25	6.25	4.73	12.42	5.73	5.66	5.89	11.12	4.12	4.08	
November ...	9.23	4.08	10.63	9.50	6.12	3.26	2.31	7.75	4.43	7.30	
December ...	12.45	8.26	7.36	9.30 (14.00)	8.52	9.26	8.22	11.60	9.25	7.31	
TOTALS ...	66.51 M	65.59 M	59.81	89.01 (93.71)	61.56 (56.80) X	56.06 M	61.79 M	76.38 n.p.t. n.p.	61.36 n.p.	63.46 M	

1958 - n.p. record Rish.  
1959 n.p. record irregular.

1960 Pint

1957. Insp. Sealed gauge difficult to reach even in summer.  
No gauge stands on shingle in a deep gully which extends from NE sloping down to SW. about 10 ft wide. Although to NW-SE it may be exposed to SW. breeze in fair condition but rain irregular (say 8.3 to 7.7) is off of 4.72 level. Not bottom measure. 1958 figures highly suspect Aug - December in particular

Position of Station on Ordnance One-Inch map : No. of Map ..... National Grid Reference NS(26)302882

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Helensburgh	3 1/2 mi S	Rhu	3 1/2 mi SW

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
			C 1933	✓	
			—	— but n.p. 60	



Station No. 5326/5

RAINFALL at Helensburgh (Blairmain) No. 2

51

County of Dumbarton

Observer

A. D. Hornsby Esq.  
(Burg Engineer)

River Basin Clyde - Leven 3

Type of Gauge

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

File No.

Diameter ...	5"				463	181					
Height ...	1'0"					1					
Altitude ...	1250'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	7.55	14.00	3.18	8.05	(4.40) 8.86	3.52	8.20	7.28	2.75	5.26	
February ...	5.20	3.70	3.25	7.65	6.40	2.50	5.40	4.00	4.00	4.75	
March ...	6.10	6.42	2.50	5.21	4.70	3.91	7.20	2.42	6.00	4.00	
April ...	4.23	3.62	3.52	4.51	3.76	2.23	3.40	2.81	4.78	5.50	
May ...	3.20	2.86	4.62	5.61	4.50	4.68	3.50	5.43	2.50	3.64	
June ...	2.72	4.30	1.58	5.00	4.40	3.55	3.10	4.52	9.12	3.60	
July ...	4.13	5.37	6.20	6.00	4.62	6.30	7.34	6.44	10.00	5.43	
August ...	7.53	5.80	5.00	7.00	2.25	6.95	5.12	7.36	2.50	4.12	
September ...	5.07	4.27	6.75	11.50	1.26	6.37	3.47	6.41	2.39	4.50	
October ...	2.31	6.50	4.52	12.25	5.88	6.21	6.00	6.00	4.40	3.70	
November ...	9.40	4.37	10.25	9.77	6.25	3.61	2.52	5.00	8.00	6.50	
December ...	11.89	7.40	7.10	(13.32) 8.86	8.80	9.37	8.47	8.12	9.75	6.80	
TOTALS ...	69.33	69.11	59.47	(95.97) 91.81	(57.22) 61.68	59.20	63.72	65.79	66.19	57.80	
	N	M				M	M	NP	NP		

1959 NP record irregular 00014

1960 NP on inspection report

1959 hump. Gauge may be installed a difficult to reach place in summit - a half hour's climb over rough marshy ground from gauge N.P. An open site in marshy ground within a small enclosure of festoon palings & rather overgrown with reeds. We hoped to keep the reeds clear & also to keep a check on such as the soft nature of the ground makes it cover

Position of Station on Ordnance One-Inch map :

No. of Map

National Grid Reference NS(26)308888

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Helensburgh	4 mi S	Rm	4 mi SW
			40004			

Summary of Earlier Records from 10-year Sheets :

206

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
			C 1933	imp + np 41 + 47 - 42 - 44 2 N.P. 45-50	

Station No. 5326/16RAINFALL at Helensburgh (Blairnaiv) No. 3

51

County of DunbartonObserver A. D. Romish Esq.River Basin Chyd - Leven - 3

(Bugh Engineer)

Type of Gauge M.O.

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

File No.....

Diameter ...	5"				663	180					
Height ...	1' 0"					1					
Altitude ...	1580'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	7.81	14.70	3.02	8.30	8.70	3.59	8.45	7.13	2.90	5.67	
February ...	5.28	3.75	3.00	7.16	5.80	2.76	6.45	3.93	3.62	4.60	
March ...	6.18	6.48	2.62	5.48	4.90	4.00	7.40	2.61	6.14	3.92	
April ...	4.78	3.25	3.22	4.66	4.01	2.31	3.45	3.00	4.70	5.62	
May ...	3.62	2.09	4.00	5.75	4.75	5.01	3.56	5.60	2.40	5.50	
June ...	2.86	4.94	1.32	5.10	4.65	4.00	3.20	4.50	8.60	4.06	
July ...	4.05	5.90	6.05	6.11	4.73	6.50	7.38	6.73	9.63	5.22	
August ...	7.15	6.00	5.10	7.31	2.27	7.14	8.20	7.56	2.00	3.90	
September ...	5.38	4.39	6.78	11.75	1.37	6.39	3.50	6.00	2.20	4.40	
October ...	2.40	6.60	4.92	12.36	5.96	6.87	6.12	6.34	4.65	3.65	
November ...	9.45	4.65	9.87	9.85	6.49	3.68	2.56	5.10	7.86	6.17	
December ...	11.93	7.75	7.00	8.70	9.00	9.20	8.40	7.93	9.55	6.89	
TOTALS ...	10.89	70.50	56.90	92.73	62.63	61.45	64.67	66.93	64.38	59.60	
	M	M				M	M	M	M	M	

1959 np low and record irregular

1960 np on uspec. report

40004  
00014

1951 inspection. This is a further half-hour shift from N°2. No time to inspect but assumed site is similar to N°2. Observer requested to take action as N°2.

Position of Station on Ordnance One-Inch map : No. of Map..... National Grid Reference NS(26)308594

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Helensburgh	4 1/2 mi S	Lums	4 1/2 mi NE

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
			C 1933	✓ but imp 41 1/2	
			—	— 42.44 but 46-50	