

40

Montrose

Torfar.

John Aberdeen Esq

Opposite No

S. Lake - 3.

YEAR - -		1842	1843	1844	1845	1846	1847	1848	1849	MEANS.
January - -		3.89	2.07	2.35	1.74	2.34	1.94	2.58	2.93	
February - -		2.01	1.48	1.88	1.69	1.08	.20	4.80	1.31	
March - - -		3.21	1.13	1.43	1.10	1.48	.80	2.62	.62	
April - - -		.09	3.66	.73	1.51	2.83	1.19	1.92	1.73	
May - - -		1.67	2.22	.49	.85	1.73	4.25	.66	2.27	
June - - -		1.58	1.92	2.75	3.51	1.45	1.55	3.97	1.91	
July - - -		2.81	5.67	2.99	2.95	5.36	2.97	2.72	2.67	
August - -		1.96	2.08	1.78	2.22	2.55	.58	2.04	1.66	
September -		3.02	.50	2.20	1.86	1.94	1.08	1.10	1.03	
October - -		1.09	2.57	.80	3.21	6.83	2.87	3.82	.77	
November -		4.98	3.38	3.75	2.75	2.92	1.76	1.59	2.19	
December -		1.46	.30	1.20	1.38	.83	5.15	2.13	2.83	
TOTALS -		27.77	26.98	22.35	24.77	31.34	24.34	29.75	21.92	

C C C C C C C C C

2/15/9 11.19 & 20

Report - Monbrose
John Aberdean Esq: Del^r
Walter Lyell

Torfar.

Sectk - 3.

YEAR - -	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	MEANS.
January - -	2.20	4.88	5.25	3.97	2.87	.79	2.90				
February - -	1.40	.74	1.20	2.28	.14	1.24	2.77				
March - - -	.55	4.51	.48	.58	.53	2.16	.08				
April - - -	2.40	2.01	.14	.94	.23	.54	2.71				
May - - - -	1.45	.53	1.13	.49	1.73	1.02	2.20				
June - - - -	1.08	2.73	2.36	1.55	1.95	1.50	2.13				
July - - - -	1.44	2.12	1.64	2.13	1.26	2.72	1.46				
August - -	2.45	2.33	2.65	2.27	.97	2.24	2.85				
September -	2.37	.97	1.73	1.20	1.06	.54	5.10				
October - -	1.61	1.65	3.23	5.55	2.52	2.16	1.78				
November -	2.10	1.16	4.68	1.97	2.42	1.22	1.31				
December -	.92	.38	5.35	1.65	1.17	2.62	1.62				
TOTALS -	19.97	24.01	29.84	24.58	16.83	18.75	26.91				

C C C C C C C

Rainfall at Monkrose

Dr. Walter Leighton

to far.

Diameter of Gauge, in. Height above Ground, ft. in. Above Mean Sea Level, ft.

S. Sect - 3.

YEAR - -	1858	1859	MEANS.
January - -			1.16
February - -			1.26
March - - -			2.39
April - - -			2.07
May - - - -			.23
June - - - -			1.98
July - - - -			2.95
August - - -			1.22
September - -	# 2.06	1.56	
October - - -			3.26 4.91
November - -			2.36 2.65
December - -			3.80 2.67
TOTALS - -			25.65

Rainfall at Montrose Forfarshire S.Yr

56.42-30N - 2.31W

Observer W. J. Campbell Authority Off Pub No 62
Montrose Museum

Mean 3 in above + ground 3 in Above Sea Level oft
8. take 3.

YEAR --	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	MEANS.
January - -											.60 1.05
February - -											.70 1.22
March - -								2.20	1.10		1.88
April - -								2.27	.85		2.00
May - -								1.25	1.00		.20
June - -								1.35	2.32		1.72
July - -								1.13	3.10		2.80
August - -								1.45	2.27		1.00
September -								1.05	1.05		.98
October -								1.55	2.63		3.02
November -								2.27	2.20		2.18
December -								.60	3.00		2.20
TOTALS -											22.42 21.05

7 Metres Deep

S C C C

8 Metres Deep

Geo^r Wynne

+ ground 3 in

+ sea level 150

S. Lake 3.

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -		1.20	3.70	2.00	1.90						
February - -		1.20	1.80	.10	2.80						
March - - -		2.00	2.50	.70							
April - - - -		.60	1.10	1.10	2.70						
May - - - -		1.10	3.10	1.30	1.80						
June - - - -		2.10	3.60	2.60	.80						
July - - - -		2.50	2.70	.40	1.70						
August - - -		4.90	1.90	3.90	1.50						
September - -		4.30	2.00	3.90	3.50						
October - -		1.60	3.00	2.50	7.50						
November - -		3.40	.90	1.20	3.30						
December - -		2.30	2.70	1.90	3.30						
TOTALS -	?	27.20	29.00	21.60	31.10						

27.50 ✓ ✓ ✓ ✓
C C C C

Montrose, Bridge St.

60

Forfar.

Hill David Scott

Div 11 $\frac{3}{8}$ found at + Ground 3 in + S.L. 25 ft
S. side - 3.

YEAR --	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January --					2.17	1.83	2.33	5.22	2.38	3.68	
February - -					3.09	2.21	2.42	.96	1.52	.68	
March - - -					1.90	1.64	2.93	1.99	1.75	.87	
April - - -					.98	.91	1.05	2.49	2.68	.92	
May - - -					1.24	2.02	1.20	3.00	1.98	1.52	
June - - -					.94	.27	1.17	.94	.40	1.71	
July - - -					1.85	3.67	2.16	4.36	.14	.71	
August - - -					1.04	3.47	2.03	2.78	4.20	1.22	
September -					3.44	.32	3.00	1.55	4.76	5.01	
October - -					6.19	3.72	2.68	2.08	2.08	3.48	
November -					3.55	3.41	1.53	.35	.94	.32	
December -					3.53	2.03	2.65	1.08	6.42	2.55	
TOTALS -					29.92	25.50	25.15	26.80	29.25	22.67	

C C C C C C

1863 Oct 25 - 1864 Jan 1st hill covered with snow
first time this year, the ground will be very
dry, however, in the field you follow to the bridge
1864 Jan 1st hill has snowed off, hill 1864 hill 1864
for protection, on 1st when the South gate was put in
by hand 1864 Oct 26 to 70° but only for a single season

Hill - Bridge measured

Montrose

Forfar.

Waller Leighton

22 63

25

6.6 63
7 in + ground 2.6 61 + Sea Level 21 feet
S. Sek - 3.

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -	3.12	1.45	3.75	2.41	2.45	2.09	1.97	2.78	2.31	3.91	
February - -	1.02	1.45	1.46	.31	3.18	2.05	2.04	.58	1.57	.79	
March - - -	1.88	2.10	2.43	.80	2.11	1.26	2.19	1.26	1.83	.81	
April - - -		.70	1.00	1.55	1.06	.04	.96	2.47	2.64	1.20	
May - - - -		1.20	3.67	1.48	1.75	1.93	1.04	2.89	1.90	1.56	
June - - - -		2.04	4.00	3.37	1.04	.27	1.11	1.11	.53	1.83	
July - - - -		2.11	2.83	.45	1.90	2.96	1.80	4.10	.15	.65	
August - - -		4.38	1.85	3.76	1.03	3.03	2.00	2.60	4.42	.86	
September - -		3.86	2.43	3.26	3.46	.28	2.91	1.38	4.79	3.48	
October - -		1.59	3.12	2.56	b.28	3.50	2.49	1.90	1.98		
November - -		5.43	3.46	.74	1.67	3.36	3.37	1.33	.36	.92	2.53
December - -		3.95	2.33	2.90	1.85	3.31	1.60	2.34	.98	6.70	1.91
TOTALS -		25.83	30.27	23.47	30.93	23.26	22.18	22.41	29.74	19.54	

C C C C C C C C C C C C

1863 July 25th .63 Gang 16th hills covered with snow first time this season, May great noise in the sea in evening of 24th Aurora very clear, Wild geese passing to the sea 22nd, June 13th Swallows arrived, Oct¹⁴ Swallows collecting for departure, on 6th when the Earthquake was felt in England the Bar¹ fell to 28° but only for a few hours.

1860 - Record incomplete

Montrose Forfarshire S. L.

James Campbell Hys. Rec No 62

Dra 7⁸

Diam 3 in + ground 3 in + Sea level 8 feet
 S. tak - 3. From this time 29 ft + 9² & 37 + SL

YEAR	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January	2.33	1.10	2.70	2.00	2.10	2.10	1.98	2.80	2.33		
February	.02	.78	1.50	.35	3.18	2.05	2.05	.60	1.55		
March	1.62	1.35	2.42	.85	2.07	1.30	2.03	1.30	1.82		
April	.60	.80	.93	1.18	1.00	.98	.95	2.53	2.68		
May	1.10	1.25	3.60	1.15	1.73	2.47	.77	2.97	1.92		
June	3.30	1.87	3.30	2.82	1.40	.21	1.13	1.13	.55		
July	1.30	2.48	2.20	.50	1.90	3.45	1.85	4.17	.20		
August	4.82	4.55	2.10	2.80	1.25	3.10	2.02	2.63	4.48		
September	.75	3.70	3.10	2.73	2.50	.27	2.88	1.42	4.85		
October	1.70	.95	2.65	2.00	6.25	2.78	2.55	1.98	2.00		
November	3.75	3.35	.85	1.72	3.25	3.12	1.52	.37	.95		
December	4.23	1.90	2.25	1.55	3.50	1.55	2.37	.95	6.72		
TOTALS	26.32	24.03	27.60	19.65	30.13	23.38	22.10	22.85	30.05		

it is very correct

1864 - "We think our old gauge was too much sheltered by
 the buildings

1867 - Leighton says "The Museum register is a copy of my own?"

RAINFALL AT Monkrose Bridge Street.

Lat..... Lon..... County of Torfar.....

Rain Gauge, by..... Observer Dr Scott Esq.....

S. Bar - 3.

Diameter	11										
Height	3										
Altitude	25.										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.83	90	3.42	2.87		4.00					
February.....	2.70	3.28	4.63	1.07		1.71					
March.....	64	81	2.33	2.00		1.89					
April.....	5.6	5.24	1.94	27		1.17					
May.....	1.38	62	1.31	2.14		1.32					
June.....	1.21	1.42	3.76	1.00		2.65					
July.....	1.13	3.98	1.88	3.15		2.80					
August.....	95	1.05	2.25	2.73	5.76	1.65					
September.....	2.45	2.55	4.75	6.26	2.05	4.45					
October.....	4.05	2.70	2.50	2.85	2.43	4.45					
November.....	3.02	2.32	4.82	2.45	2.48	4.48					
December.....	4.10	1.14	3.65	1.90	1.71	2.32	4				
TOTALS	24.10	26.81	37.23	28.63		32.89					

C C C

1874 observations for months previous to Augt. mislaid

RAINFALL AT Monkland High Street.

Lat.....

Lon.....

County of Forfar

Rain Gauge, by..... Observer Mr. Walter Langton
S. Lake - 3.

Diameter	7										
Height	6.4										
Altitude	22										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.72										
February.....	2.42										
March.....	- 3.5										
April.....	4.1										
May.....	1.36										
June.....	1.21										
July.....	1.10										
August.....	.85										
September.....	2.16										
October.....	3.53										
November.....	2.65										
December.....	+ 3.81	ff									
TOTALS.....	21.57										

1870 Bees & Butterflies seen April 20.th Very heavy gale from
SE Dec 19th

RAINFALL AT Montrose Museum

Lat.....

Lon..... County of Forfar.

Rain Gauge, by..... Observer A. Buchanan Esq.
S. side - 3.

Diameter	5									
Height	29.0									
Altitude	37 ^m									
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879
January.....	75	2.42	9.20	1.23	2.25					
February	3.55		6.5	6.2	1.30					
March62		1.88	1.23						
April.....	5.35		6.0	7.5						
May62		2.20	2.12						
June	1.35		4.7	5.3						
July	3.52		9.08	1.65						
August.....	1.55		1.87	4.65						
September.....	2.12		4.50	1.67						
October.....	2.48		2.45	2.15						
November.....	1.08		2.10	1.90						
December.....	1.08	3.02	1.68	2.28						
TOTALS	24.87		24.68	20.78						

C C

1873 Jan sent to M' B. = 9.10 Aug 1875 In Preston guardian
 aug 1.82 & total 24.825 while the true sum is 24.63
 no reply to enquiry
 1875 no reply

RAINFALL at Montrose Brugh

County of Forfar

Observer

S.L. Christie Reg. & per S.M.

River Basin: South Esk &c

Rain Gauge, by

Diameter ...							5"			
Height							1' 0"			
Altitude ...							16			
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	MEANS.
January ...								1.52	2.68	2.02
February94	2.00	2.10
March								1.34	1.54	1.35
April92	.38	2.90
May								1.89	4.19	.62
June.....								1.02	1.45	1.11
July								1.43	4.64	.66
August								3.48	1.77	2.49
September...								.85	1.13	2.72
October ...								3.39	2.34	1.85
November..								3.45	2.90	1.57
December...								3.93	.90	4.89
TOTALS ...								19.81	26.13	25.45

Calcium sulphate. S. in limestone outcrop (30' x 20'). "Ledges" 15' high - 25 yds E. 2 two-story houses
32 yds W. On landward edge of a stretch of sandy waste land (2-300 yds broad) along sea front.

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

RAINFALL at Montrose

County of Forfar

Observer S. L. Christie Esq.

River Basin South Esk & C. S.

D. Maxwell Esq. 1923

M.O. Rain Gauge, by 22.3.1922.

Diameter ...	5			5							
Height	1	0		1	0						
Altitude ...	16			16							
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	M.EAN.
January ...	1.33	1.69	3.30	1.68	2.59	1.52	4.02	1.63	4.17	1.29	1.15
February ...	1.00	.50	1.63	3.99	1.09	2.90	3.85	1.22	.98	2.20	.76
March	1.53	1.99	1.65	1.39	.62	.96	.61	2.10	3.71	.04	1.04
April.....	2.35	1.43	2.38	2.28	2.13	2.43	1.55	1.16	.96	1.09	2.17
May	3.00	2.28	.89	1.77	3.13	2.89	2.32	2.03	1.20	2.03	.69
June84	.91	1.05	.63	1.28	.77	1.94	2.22	2.89	1.40	1.11
July	3.29	1.73	3.10	1.93	4.37	1.90	2.23	1.89	1.86	2.93	2.09
August	2.88	1.82	2.37	4.47	3.02	1.91	1.73	2.77	3.60	4.07	6.08
September...	1.77	1.17	2.55	2.47	4.63	2.96	3.42	6.19	2.18	.37	4.29
October.....	2.18	1.39	1.50	2.37	4.55	2.08	5.21	4.94	3.15	2.61	2.50
November...	2.02	2.24	1.22	2.82	1.75	1.86	4.78	1.90	2.17	3.59	3.08
December...	3.31	.88	1.25	3.24	2.79	1.87	.27	2.07	2.48	4.38	3.06
TOTALS...	26.20	18.03	22.59	29.04	31.95	23.05	31.91	30.12	29.35	26.00	28.02

1922 Gaddie Shelter 15' 11" high 40° 45' N 15°

1925. Obs. note 9. probably transferred with on July 20th, 71 mm adopted.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 from gauge	Parish Church.	Distance from gauge	Direction from gauge
1922	56° 42' 45" N	2° 27' 6" W	G.R.	3/4 mi	S.S.W.	- -	1 mi	S.W.

RAINFALL at Montrose

M.W.R.

County of Angus (Forfar)

Observer D. MacLennan, C.E.

River Basin B. South Est & C.

The Burgh Surveyor (1935)

Type of Gauge M.O.

Annual Average 26.2 in. based on 11 years obs., un-weighted. Period of average 1881-1915. Ref. S.
 Average has survey map but is not used in B. since 7 values do not fit map.

Diameter	5.										
Height	1.0.										
Altitude	16.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.24	1.21	1.57	1.23	1.05	4.50	3.52	2.78	3.52	1.27	
February	2.46	.18	1.76	.08	1.77	2.55	2.54	.89	1.66	1.27	
March	.66	3.23	1.28	1.98	1.53	1.46	2.34	.28	2.76	2.72	
April	2.17	1.69	1.56	5.58	2.72	.43	1.66	.38	.64	.99	
May	2.20	1.07	.95	2.14	1.16	1.13	2.04	2.90	1.27	1.25	
June	4.32	.91	.85	.59	3.67	.87	1.79	2.98	1.48	.29	
July	4.87	3.01	2.90	2.55	.98	3.77	3.74	3.22	4.09	5.53	
August	2.20	.43	.86	2.91	1.63	.94	1.21	.58	1.92	1.00	
September	1.57	1.75	.89	3.00	3.48	3.04	1.32	2.78	2.54	2.18	
October	.58	6.87	3.41	2.70	3.50	.86	2.77	2.99	2.31	4.22	
November	5.18	1.00	2.19	.87	4.10	1.05	.70	3.09	3.14	5.71	
December	1.04	1.98	1.26	4.07	2.17	1.71	3.50	2.63	1.10	1.78	
TOTALS	30.49	24.83	19.48	37.70	27.70	22.31	33.13	25.50	26.32	28.21	
	D.	D.	D.	?	D.	D.	D.	D.	D.	D.	

Inspected 26/5/34 by Mr. Horne. Gauge leaky, badly battered, run out of shape, and pipe broken. Probably over-exposed (see inc 103, F.300477/34) The gauge exposure will alter exposure as recommended.

New gauge placed 10' further from sloping ground.

1933 up.

1934 Painted with grey.

1940 Obs suspended due to shortage of staff. will be resumed later.

Resuming 11-4-42

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.			L. M. S.	3/4m	S.W.	High Street.	3/4m

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

Station No. 5601

41

RAINFALL at Montrose (M.W.R.)

County of Angus (Forfar)

Observer The Burgh Surveyor

River Basin 3 - South Esk &c.

Type of Gauge M.O.

Annual Average 26.2 in. based on 11 years obs. up-weighted. Period of average 1881 - 1915. Ref. S
 Average fits survey map but is not used in B.R. since $\frac{1}{2}$ values do not fit map.
 File No.

Diameter	5			854	647					
Height	0					1				
Altitude	16.					41				
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January	2.60	3.83	3.15	1.13	3.73	1.42	3.82	3.83	.89	1.33
February	3.10	(1.47)	1.05	0.84	1.91	1.08	2.28	2.12	1.06	1.74
March	1.06	1.37	0.39	0.77	0.78	1.57	(2.90)	.34	1.25	1.70
April	2.01	1.13	1.24	2.51	1.05	.32	2.49	.97	1.72	1.13
May	-100	2.34	3.69	2.26	4.05	1.48	3.32	3.24	1.38	1.08
June		0.79	0.89	2.11	2.07	3.36	2.00	3.18	1.07	82
July		1.86	1.61	1.73	2.79	4.49	1.68	1.97	1.84	3.60
August		3.04	3.61	1.30	4.25	2.32	.08	5.09	3.08	2.62
September		2.41	2.12	1.89	3.39	3.00	1.53	1.81	1.68	5.33
October		-100	2.24	2.46	4.17	4.28	.44	1.39	2.43	3.03
November		3.39	0.37	1.09	2.43	1.08	5.83	1.77	.88	3.28
December		0.73	2.17	.88	2.52	4.33	3.12	1.92	3.17	1.63
TOTALS	100	23.02	22.18	22.66	33.71	28.43	25.18	29.03	21.79	25.04
	ap. imp.	P	P	P	P	P	d	P	P	P

1941 Feb. suspended owing to absence of Staff on war service.

1942 Feb 2 cord. for snow.

2000 ft

1000 ft

1947. has adj. for seas.

Inspected 28.11.47 by Mr Rattray gauge sound & not sheltered. Low readings due to interference & distortion of rain. (diff of diameter - 4 in.)

Map. N Thomson 20.5.49. Gauge sound, measure slightly cracked
Map. Mr Thomson 26/4/50 Gauge sound - gauge broken but bottle has never overflowed
Slight filling off could be due to interference.

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

Station No. 5601 T 21.10.54

RAINFALL at MontroseM.W.R.

51

County of Angus (Fife)

Observer

River Basin Lough Leck & L. 3Type of Gauge M.D.Annual Average 26.2 in. based on 11 years obs. ~~wk~~-weighted. Period of average 1881-1915 Ref. S

File No.

Diameter ...	<u>55"</u>				824	647					
Height ...	<u>110"</u>						1				
Altitude ...	<u>116'</u>						51				
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January	4.11	1.13	0.57	1.18							
February	2.11	0.75	0.61	2.16							
March	1.74	2.74	2.25	2.00							
April	2.36	1.10	2.86	1.15							
May	1.24	2.78	1.73	3.11							
June	1.58	2.35	1.28	1.53							
July	2.75	2.26	3.62	1.68							
August	3.61	2.05	2.19	1.00							
September	1.51	0.56	2.58								
October	0.77	2.34	1.17								
November	6.24	1.72	2.23								
December	1.41	1.90	2.92	1.00							
TOTALS ...	29.43	21.73	22.01	1.00	MC	NP.					
	D	D	D								

Report Shows 9.6.53. New controller consequential to N.R.S. as site is raised 1 ft above general surface level. Test bench
Aug 1954 leak in delivery tube test bottle used & non-reliable.

Surf well completed 27/2/53.

6 Surf well round gauge 6 May 1953 - 3.12.53

Position of Station on Ordnance One-Inch map : No. of Map National Grid Reference 37/724582

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

Summary of Earlier Records from 10-year Sheets :

Record D. or d		1910-19	1920-30	1931-40	1941-50	1951-60
		Cont. 1916	✓	✓	✓ np. 41	Jan. 47
		—	D 21-30	D 31-33.35-40	✓ np. 41	Jan. 47