SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of January 1912.

Lat. 57 2 Long. 3 12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. Barometer (inches)	9 A.M. Attached Thermometer (°)	9 P.M. Barometer (inches)	9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers, Screen, Max. A P.M. (°)	Screen, Min. A P.M. (°)	Black Bulb Max. in Sun. A P.M. (°)	Min. on Grass. A A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	9 A.M. Wet bulb (°)	3 P.M. Dry bulb (°)	3 P.M. Wet bulb (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	9 A.M. Force Scale of 0–12	Wind 9 P.M. Direction	9 P.M. Force Scale of 0–12	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date
1	29·050	41			52	31	80	27	41·5	38	49	46	—	NW	1					10							O	O	Dull but fair	1
2	29·100	47			52	47	80	41	49	46	49	47	—	W	1					10							O	O	Dull but fair	2
3	28·800	41			45	39	79	37	41	36	40	35	·04	WNW	8					8							Bc	O	Dull but fair	3
4	28·700	36			46	32	64	29	33	32	46	44	·03	W	1					10							O	O	Mg P Dull but fair after lu ha	4
5	28·200	36			39	28	90	25	38	37	33	32	·14	SW	1					4							Bc	Bc	My clear afternoon Showery lu ha	5
6	28·150	35			40	28	84	26	31	30	36	33	·31	SE	1					10							O	S	My dull Afternoon *² ⊠ ≡ *² f	6
7	28·450	25			33	18	61	14	27	26	31	29	—	W	1					10							O	O	⊠ Dull but fair	7
8	28·850	20			39	13	60	10	19	18	38	37	·42	W	1					10							O	O	⊠ Dull but fair Evg *² *²	8
9	28·180	33			43	30	61	27	33	32	41	40	·38	E	6					10							O	OP	≡ ⊠ Dull & Showery ∀ Evg R. f f	9
10	28·800	36			44	37	64	34	36	35	43	40	·57	SE	3					10							OP	R	⊠ Dull & R throughout ≡°	10
11	28·750	40			45	39	69	36	39	38	43	41·6	·05	E	6					10							OP	Bc	My dull & P Clear after	11
12	28·900	41			46	35	96	33	40	39	44	43	·18	W	1					8							O	OP	Dull but fair R at night.	12
13	28·850	40			49	39	90	36	42	40	46	43	·36	SW	1					10							O	OR	Clear & fair R at night ∀ f	13
14	28·700	43			46	40	87	37	40	38	44	40	·30	E	4					10							OP	O	Dull & P throughout	14
15	28·750	40			47	23	70	20	30	29	44	42	1·02	S	1					8							O	R	Dull & R² throughout ∀² f	15
16	28·600	40			40	29	80	26	41	40	38	37	1·06	E	8					10							OR	OS	∀ Dull & R² throughout ∀ *² ⇾ ≡ f *² f	16
17	29·100	34			43	30	80	26	39	38	39	36	·08	E	6					10							S	S	⊠² ∀² *² ⇾ Stormy °≡ *² f	17
18	29·100	32			38	28	76	25	30	29	38	37	·06	E	6					10							OS	O	⊠ My * ⇾ ∀ Dull after ≡ * f	18
19	28·950	33			43	30	74	27	34	33	40	37	—	S	1					10							O	O	⊠ Dull but fair ≡ f	19
20	28·900	30			39	18	62	15	30	28	38	36	—	W	1					10							O	O	⊠ Dull but fair ≡ f	20
21	28·950	33			40	33	58	28	34	33	39	37	—	NW	1					10							O	O	⊠ Dull but fair	21
22	28·800	31			42	25	60	22	31	30	40	36	—	NW	1					10							O	O	⊠ Dull but fair.	22
23	28·700	28			42	18	81	15	24	22	39	38	·03	W	1					8							O	O	⊠ Dull but fair Evg Sn Showers *°	23
24	28·700	32			43	26	80	24	31	30	41	37	—	E	4					10							O	O	⊠ Dull but fair	24
25	28·600	33			44	28	81	26	34	32	42	40	·04	SE	2					10							O	Bc	⊠ My dull Clear after Evg Sn Showers *°	25
26	28·900	31			40	26	83	22	31	30	39	36	·05	W	3					8							C	O	⊠ Dull & Sn Showers *	26
27	29·100	31			39	27	82	24	31	30	36	35	—	SW	1					10							O	Bc	⊠ My dull Clear after	27
28	29·400	24			42	11	71	9	18	16	36	33	—	W	4					0							B	Bc	⊠ Clear & fair	28
29	29·450	22			36	8	60	5	20	17	34	32	—	SW	1					10							O	Bc	⊠ My dull Clear after	29
30	29·000	20			41	7	81	3	17	14	39	37	·08	W	2					4							Bc	O	⊠ My Clear Afternoon Dull & * *	30
31	28·900	30			40	28	81	24	30	29	39	38	·06	SW	3					10							OS	O	⊠ My Sn Showers Dull After, *°	31
Sums.	1650 26·780	7 108			12 78	17 231			10 845	16 456	16 14	14 146	5·26		82					4 278										
Means.	28·799	33·5			42·5	27·5			32·7	31·5	40·5	37·9			2·6					9·0										
Instrumental Errors.	+040								-·4 1·3	-·5	-·4 2·0	-·5																		
Corrected Means.	28·839								32·3	31·0	40·1	37·4																		

WEATHER NOTATION.

a. denotes aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. denotes mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0–12).

FORCE.		FORCE.		FORCE.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

·154 84% ·195 78%

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 13 ... ·826
Corrected Mean at 9 P.M., *minus* Correction for Temp. — ...
Mean at Station, corrected, and at 32°, ... 28·826
Correction for height, feet above Mean Sea Level, ... + 1·068
Mean, reduced to 32°, and Sea Level, ... 29·894
Highest Reading, corrected for Index error, on th, ...
Lowest Do. Do., on th, ...
Difference, or **Monthly Range,** ...

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 1 th, 2 ... 52
Lowest in Month, on 30 th, ... 7
Difference, or **Monthly Range,** ... 45
Mean of all the Highest, ... 42·5
Mean of all the Lowest, ... 27·5
Difference, or **Mean Daily Range,** ... 15·0
Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 35·0
Min. on Grass, Lowest in Month, ...
" " Mean, ...
Black Bulb, Max. in Sun, Highest in Month, ...

ADDITIONAL REMARKS.

16

28·826
1·068
29·894

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, ... 32 3
Wet Bulb, Mean of A.M. and P.M. Readings, ... 31·0
Computed **Temperature of Dew-Point,** ...
Do. **Elastic Force of Vapour,** ... ·154
Do. **Relative Humidity** (Saturation = 100), ... 84%
RAIN fell on 20 **Days; Amount in Inches,** ... 5·26

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.			7	3	2	5	11	3		
P.M.										
Sum.	0	0	14	6	4	10	22	6	0	2·6

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

WEATHER SUMMARY.

Number of Days of Precipitation, ... 20
Snow, ... 10
Hail, ... 0
Thunder, ... 0
Clear Sky, ... 1
Overcast, ... 23
Fog, ... 6 ~~5~~
Ground Frost, ... 24 ~~24~~
Gale, ... 5
14

INSTRUMENTS IN USE.

Barometer, No. 1758
Dry Bulb, No. 518
Wet Bulb, No. 518
Maximum, No. 67067
Minimum, No. 66939
Solar Radiation, No. 10477
Grass Min., No. 854
Sun Recorder, No.
1-foot Therm., No.
4-foot Therm., No.

Observations made and Return verified by John McGroup

(Signed) J McGroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of February 1912.

Lat. 57 2 Long. 3 12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	BAROMETER. 9 A.M. Barometer.	BAROMETER. 9 A.M. Attached Thermometer	BAROMETER. 9 P.M. Barometer.	BAROMETER. 9 P.M. Attached Thermometer	*SELF-REGISTERING THERMOMETERS. Screen. Max. 9 A.M.	Screen. Min. 9 A.M.	Black Bulb Max. in Sun. 9 A.M.	Min. on Grass. 9 A.M.	HYGROMETER. 9 A.M. Dry bulb.	9 A.M. Wet bulb.	9 P.M. Dry bulb.	9 P.M. Wet bulb.	†RAIN. Amount at 9 A.M.	WIND. 9 A.M. Direction.	9 A.M. Force. Scale of 0—12.	9 P.M. Direction.	9 P.M. Force. Scale of 0—12.	Anemometer. 9 A.M.	CLOUDS. 9 A.M. Species and Direction.	9 A.M. Amount (0—10).	9 P.M. Species and Direction.	9 P.M. Amount (0—10).	SUNSHINE. Hours.	THERMOMETERS under Ground. 9 A.M. 3 ins.	12 ins.	48 ins.	WEATHER. At 9 A.M.	At 9 P.M.	GENERAL REMARKS. Occurrence of Snow, Hail, Thunder, Lightning, Fog, Gales, Meteors, Auroras, Remarkable Depression or Elevation of Barometer, etc. *Mention the hour at which Storms, including Thunder and Lightning, began and ended.*	Date.
	inches.	°	inches.	°	°	°	°	°	°	°	°	°	inches.											°	°	°				
1	28·600	32			38	26	56	24	33	31	37	34	·22	NW	4					10							OS	OS	⊠ Dull & * throughout fr ψ	1
2	28·600	19			36	4	59	0	9	7	33	30	·16	SW	1					10							Bc	Bc	⊠ clear & fair * at night	2
3	28·550	21			33	7	47	4	11	10	29	27	—	NW	2					10							Bc	Bc	⊠ clear & fair.	3
4	28·630	18		?	34	3	49	−2	7	4	33	31	·06	SW	1					4							B	Bc	⊠ clear & fair Eg Frosty	4
5	28·300	10			36	−2	53	−5	6	4	37	35	·07	NW	1					8							Dc	O	⊠ Dull but fair Eg *	5
6	28·100	26			42	20	61	18	29	26	40	36	·04	SW	4					3							O	O	⊠ Dull but fair Eg *	6
7	27·950	34			43	30	66	27	36	34	41	38	·12	W	1					10							Bc	R	⊠ Mg clear Dull & P after ≡	7
8	28·050	39			46	39	64	37	39	37	43	39·5	·06	S	3					10							O	P	⊠ ≡ Dull & P throughout	8
9	28·000	38			47	37	68	34	37	35	44	40·3	·08	SW	2					7							O	P	Dull & P throughout ≡	9
10	28·100	39		?	46	35	71	36	38	35	43	39	—	W	4					8							O	Bc	≡ Mg dull clear after.	10
11	28·400	35			49	30	81	27	36	35	47	43	·03	W	1					10							Bc	Bc	fr. ≡ Mg dull clear after.	11
12	28·650	37			40	38	60	35	39	36	39	38	·08	SW	1					10							O	P	≡ Dull & P throughout	12
13	28·750	36			41	36	58	33	37	35	39	38	·06	SE	2					10							O	O	≡ Dull & P throughout	13
14	28·900	36			46	36	68	33	38	36	45	41·8	—	W	1					10							Bc	Bc	≡ Mg hazy clear after	14
15	28·850	37			47	30	64	27	38	37	44	42·6	—	SW	1					4							O	Bc	Mg dull clear after.	15
16	28·750	35			49	31	98	27	34	33	48·5	46	·03	W	2					8							Bc	OP	Mg clear afternoon Dull & P	16
17	28·700	41			52	36	105	32	42	40	49	45	—	SW	1					3							B	Bc	clear & fair Eg Frosty.	17
18	28·800	37			50	31	87	28	34	31	47	45	·75	N	4					10							O	BcP	fr. Mg dull clear after Eg P *	18
19	28·250	36			46	32	80	30	38	37	44	40	·06	E	1					10							O	OP	⊠ Dull & Showery.	19
20	28·350	36			46	33	84	30	37	36	45	41·6	—	NW	3					7							Bc	Bc	⊠ clear & fair	20
21	28·800	38			51	32	96	29	39	37	48·7	45	—	W	2					8							O	Bc	Mg dull clear after	21
22	28·850	40			53	31	87	29	41	40	49	46	·09	ESE	3					10							O	P	Mg dull afternoon P	22
23	28·400	45			47	43	86	40	46	44	46	45	·05	SE	1					10							OP	O	Dull & Showery 2.45 pm	23
24	28·700	46			47	29	88	25	45	42	45	44	—	W	2					3							Bc	Bc	clear & fair	24
25	28·600	36			45	28	96	25	40	38	44	43	—	N	1					2							Bc	Bc	clear & fair	25
26	28·500	43			50	39	104	37	42	40	48	46	—	SSW	6					10							O	Bc	Mg dull clear after ψ	26
27	28·300	42			51	39	93	36	41	40	49	44	·19	SW	6					10							Bc	BcP	ψ 9.10 am 10 am clear & fair Eg P	27
28	28·700	41			52	40	108	37	44	40	50	48	·34	S	1					8							O	Bc	Mg dull clear after Eg OR ψ	28
29	28·150	43			50	41	87	38	42	40	49	48	·06	SE	9					10							OP	Bc	ψ 8.20 am 10 am 10.45 Mg P clear after	29
30																														30
31																														31
Sums.	14·300	146			153	274			128	70	962	198	2·55		71					233										
Means.	28·493	35·0			45·6	29·4			34·4	32·4	43·3	40·7			2·4					8·0										
Instrumental Errors.	+040								−·4	−·5	−·4	−·5																		
									34·0	31·9	42·9	40·2																		
Corrected Means.	28·533								2·1		2·7																			
									·154 / 79%		·220 / 80%																			

WEATHER NOTATION.

a. *denotes* aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. *denotes* mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

FORCE.		FORCE.		FORCE.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 19 ..... ·516

Corrected Mean at 9 P.M., *minus* Correction for Temp. — .....

Mean at Station, corrected, and at 32°, ... 28·516

Correction for height, feet above Mean Sea Level, ... + 1·049

Mean, reduced to 32°, and Sea Level, ... 29·565

Highest Reading, corrected for Index error, on th, ...

Lowest Do. Do., on th, ...

Difference, or **Monthly Range,** .....

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 22th, ... 53

Lowest in Month, on 5 th, ... −2

Difference, or **Monthly Range,** 55

Mean of all the Highest, ... ? high ..... 45·6

Mean of all the Lowest, ... 29·4

Difference, or **Mean Daily Range,** ..... 16·2

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 37·5

Min. on Grass, Lowest in Month, ...

,, ,, Mean, ...

Black Bulb, Max. in Sun, Highest in Month, ...

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, ... 34·0

Wet Bulb, Mean of A.M. and P.M. Readings, ... 31·9

Computed **Temperature of Dew-Point,** .....

Do. **Elastic Force of Vapour,** ..... ·154

Do. **Relative Humidity** (Saturation = 100), ... 79 %

RAIN fell on 19 **Days; Amount in Inches,** 2·55

WIND. (16) SUMMARY. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	1		2	3	3	8	8	4		
P.M.										
Sum.	2	0	4	6	6	16	16	8	0	2·4

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

1066
17

WEATHER SUMMARY.

Number of Days of Precipitation, ...	19
Snow, ...	5
Hail, ...	0
Thunder, ...	0
Clear Sky, ...	0
Overcast, ...	16
Fog, ...	6
Ground Frost, ...	17
Gale, ...	5

INSTRUMENTS IN USE.

Barometer, No. 1758
Dry Bulb, No. 518
Wet Bulb, No. 518
Maximum, No. 67067
Minimum, No. 66939
Solar Radiation, No. 10477
Grass Min., No. 854
Sun Recorder, No.
1-foot Therm., No.
4-foot Therm., No.

Observations made and Return verified by John McIntosh

(Signed) John McIntosh

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Observations taken at Balmoral, County of Aberdeenshire During the MONTH of March 1912.

Lat. 57·2 Long. 3 12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun. 9 A.M. (°)	Min. on Grass. 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	9 A.M. Wet bulb (°)	3 P.M. Dry bulb (°)	3 P.M. Wet bulb (°)	†Rain. Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force Scale of 0–12	Wind 9 P.M. Direction	Wind 9 P.M. Force Scale of 0–12	Anemometer 9 A.M.
1	28·400	44			49	41	102	38	43	41	47	43	·04	S	6			
2	28·200	45			50	39	101	35	44	42	46	45	—	NW	4			
3	27·950	44			50	40	120	37	43	40	43	40	~~·05~~	W	1			
4	28·340	40			49	38	107	35	40	37	48	46	·16	WNW	1			
5	27·950	42			43	34	70	32	37	36	41	40	·03	NNW	2			
6	28·200	40			50	33	98	31	40	38	48	46	·02	NW	3			
7	28·550	43			49	31	116	28	38	37	43	39	—	W	1			
8	28·550	34			46	28	93	23	31	30	44	40	·09	SW	2			
9	28·400	39		×	48	33	103	30	37	36	49	46	—	W	1			
10	28·700	34			46	29	98	26	31	30	44	41	·08	SE	1			
11	28·900	36			49	28.	102	26	34	33	47	44	·02	SSE	1			
12	28·900	39			47	26	96	24	36	34	47	44	·01	SW	1			
13	28·800	46		(?58)	45	40	120	36	47	45	45·8	43	—	W	2			
14	28·700	46			53	42	121	40	44	43	51	47	·03	W	3			
15	28·500	44			51	37	106	34	44	42	47	46·5	—	W	1			
16	28·600	34		\	48	21	100	18	33	31	48	41·6	·05	SW	2			
17	28·250	40			46	36	90	34	36	34	44	39	·33	SE	1			
18	28·600	41			44	38	94	35	38	37	42	38·5	·34	E	3			
19	27·900	40			43	36	96	34	37	33	40	39	·05	E	1			
20	28·000	37			44	27	89	24	36	34	41	37	·13	S	2			
21	28·150	34		\	42	27	78	23	33	30	42	39	·13	SW	3			
22	28·250	38			43	34	91	33	38	37	42	40	·18	E	4			
23	28·560	42			47	27	123	25	31	30	45	42	—	W	2			
24	28·450	36			44	28	93	25	34	31	43	40·6	·03	E	2			
25	28·750	42			54	37	130	33	42	41	51·5	48·3	·04	W	1			
26	28·850	44			53	39	111	34	42	41	50	47	·18	SW	1			
27	28·600	43		×	54	38	114	34	44	42	55	51·8	·03	NNW	6			
28	28·650	41			52	38.	108	36	46	44	49	47	·22	NW	4			
29	28·700	40			45	33	90	30	38	35	43	40	·13	NNW	4			
30	28·550	38		\	46	32	104	29	36	33	46	43	·06	NW	4			
31	28·400	40			45	30	96	28	39	37	42	39	·08	NW	3			
Sums.	13·700 (16 7)	06 (11)			235 (14)	110 (16)			262 (14)	206 (10)	176 (131)	38·3 (143)	2·51 (11)					
Means.	28·442	40·2			47·6	33·5			38·5	36·6	45·7	42·7						
Instrumental Errors.	+040								-·4 38·1	-·5 36·1	-·4 45·3	-·5 42·2						
Corrected Means.	482								2·0 ·191 / 83		3·1 ·235 / 77							

Date.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date.
1		10							O	O	~~ff~~ Mg Clear Afternoon Showery 3.20	1
2		10							O	Bc	Mg dull Clear after 2.0 Pm	2
3		10							O	Bc	Mg dull 11 am 2 40 Pm Clear after. P.	3
4		8							Bc	Bc	Clear & fair Evg R.	4
5		10							O	BcP	Mg dull Clear after P at night	5
6		10							OP	Bc	Mg dull & P Clear after	6
7		4							Bc	Bc	Clear & fair Evg Frosty.	7
8		6							Bc	BcR	Hfr. Clear & fair Evg R.	8
9		8							C	Bc	Mg dull Clear after.	9
10		6							Bc	P	Hfr. Mg Clear. Afternoon Dull & P.	10
11		10							O	Bc	≡ Mg dull Clear after.	11
12		10							O	Bc	Mg dull Clear after.	12
13		0							B	Bc	Bright Sunshine	13
14		6							Bc	B	Bright Sunshine Evg O P.	14
15		10							O	Bc	Mg dull Clear after.	15
16		0							Bc	Bc	Hfr Clear & fair. P at night	16
17		10							OP	BcR	≡° Mg dull & P Clear after. R at night	17
18		10							OP	OP	≡° Dull & Showery Evg O	18
19		10							OP	Bc	Mg dull & P Clear after. ≡	19
20		7							Bc	OS	Mg Clear Afternoon Dull & * ⊠°	20
21		10							O	OS.	Dull & * throughout. ⊠	21
22		7							Bc	OS	Mg Clear Dull & Sn Showers after	22
23		4							Bc	Bc	Clear & fair Evg Frosty.	23
24		10							O	O	Dull but fair P.	24
25		4							Bc	B	Bright Sunshine	25
26		10							O	Bc	≡° Mg dull Clear after R at night	26
27		4							Bc	Bc	Clear & fair Evg P	27
28		5							Bc	Bc	Clear & fair Evg * ⊠°	28
29		6							Bc	Bc	⊠ Mg * Clear & fair after * at night	29
30		5							S	Bc	⊠ Mg * Clear after Afternoon Sn Sh.	30
31		10							O	Bc	Mg dull Clear after Evg * ⊠	31
Sums.		230 (13)										
Means.		7·4										

Margin annotations (red): 14 (day 1); f (day 11); f (day 19); ✱ (days 20, 21, 22, 28, 29, 30, 31).

WEATHER NOTATION.

a. denotes aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. denotes mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0–12).

Force.		Force.		Force.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 30 } 28·453

Corrected Mean at 9 P.M., *minus* Correction for Temp. — }

Mean at Station, corrected, and at 32°, 28·452

Correction for height, feet above Mean Sea Level, + 1·044

Mean, reduced to 32°, and Sea Level, 29·496

Highest Reading, corrected for Index error, on th,

Lowest Do. Do., on th,

Difference, or Monthly Range,

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 25th, 27 — 54

Lowest in Month, on 16th, — 21

Difference, or Monthly Range, — 33

Mean of all the Highest, — 47·6

Mean of all the Lowest, — 33·5

Difference, or Mean Daily Range, — 14·1

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), — 40·6

Min. on Grass, Lowest in Month,

" " Mean,

Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

1·060
16
1·044

28·484
29·528

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, — 38·1

Wet Bulb, Mean of A.M. and P.M. Readings, — 36·1

Computed Temperature of Dew-Point,

Do. Elastic Force of Vapour, — ·191

Do. Relative Humidity (Saturation = 100), — 83%

RAIN fell on 25 Days; Amount in Inches, 2·51

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.	2		4	2	3	5	9	6		
P.M.										
Sum.	4	0	8	4	6	10	18	12		

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

(16)

WEATHER SUMMARY.

Number of Days of Precipitation, 25
Snow, 7
Hail, 0
Thunder, 0
Clear Sky, 2
Overcast, 15
Fog, 2
Ground Frost, 14
Gale, ~~0~~ 14

INSTRUMENTS IN USE.

Barometer, No. 1758
Dry Bulb, No. 218
Wet Bulb, No. 218
Maximum, No. 67064
Minimum, No. 66732
Solar Radiation, No. 10477
Grass Min., No. 854
Sun Recorder, No.
1-foot Therm., No.
4-foot Therm., No.

Observations made and Return verified by { John McGroup Mo. +·032

(Signed) J McGroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of April 1912.

Lat. 57.2 Long. 3 12W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. (inches.)	Attached Thermometer 9 A.M. (°)	Barometer 9 P.M. (inches.)	Attached Thermometer 9 P.M. (°)	*Self-Registering Thermometers: Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun. 9 A.M. (°)	Min. on Grass. 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb. (°)	9 A.M. Wet bulb. (°)	3 P.M. Dry bulb. (°)	3 P.M. Wet bulb. (°)	†Rain. Amount at 9 A.M. (inches.)	Wind 9 A.M. Direction.	9 A.M. Force. Scale of 0—12.	9 P.M. Direction.	9 P.M. Force. Scale of 0—12.	Anemometer. 9 A.M.	Clouds 9 A.M. Species and Direction.	9 A.M. Amount (0—10).	9 P.M. Species and Direction.	9 P.M. Amount (0—10).	Sunshine. Hours.	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	At 9 P.M.	General Remarks. Occurrence of Snow, Hail, Thunder, Lightning, Fog, Gales, Meteors, Auroras, Remarkable Depression or Elevation of Barometer, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.	Date.
1	28.800	34			42	29	69	26	33	31	43	39	.07	NW	5					10							0	Bc S	⊠ Mg dull. Clear after Evg * ⊠	1
2	28.950	38			47	28	82	25	37	35	46	43	.03	NW	3					10							0	Bc	⊠ Mg dull Clear after	2
3	29.150	42			54	30	113	27	43	40	53	50	.02	W	1					10							0P	Bc	Mg Showery Clear after.	3
4	28.800	48			59	43	118	40	49	47	58.5	54	.26	SW	6					1							B	Bc R	Clear & fair Evg R.	4
5	28.600	53			61	48	121	46	53	51	59.8	54	—	W	8					3							Bc	Bc	Clear of air.	5
6	28.660	51			60	49	114	45	50	47	58.6	53	—	NW	10					3							Bc	Bc	Clear of air	6
7	29.000	43			52	32	109	29	42	37	50	44	.06	W	1					10							0	0P	Mg dull Afternoon R.	7
8	28.950	43			46	43	88	41	43	41	47	44	.26	NW	8					6							Bc	0R	Mg clear Afternoon Sn Sh Evg * ⊠	8
9	28.650	33			49	29	93	25	33	30	48	42	.09	NNW	8					6							Bc	0S	⊠ Mg clear Afternoon Sn Sh	9
10	28.600	36			48	27	103	23	35	33	43	39	.18	NW	4					4							Bc	0S	Mg Clear Afternoon * ⊠	10
11	28.800	36			46	24	80	22	34	33	44	40	.03	N	6					10							0S	Bc	⊠ Mg Sn Sh Clear after.	11
12	29.200	36			51	20	108	17	30	28	49	47	—	W	1					4							Bc	Bc	Clear & fair	12
13	29.350	44			53	37	113	33	48	46	50	47	—	NW	2					8							Bc	Bc	Clear & fair.	13
14	29.260	41			62	30	123	26	40	38	59.8	54	—	W	4					0							B	B	Bright Sunshine	14
15	29.250	47			67	33	134	31	48	46	64.3	60	—	W	1					0							B	B	Bright Sunshine	15
16	29.100	48			68	33	136	30	49	48	64	62	—	W	3					0							B	B	Bright Sunshine	16
17	29.050	47			64	37	131	33	48	46	60	58	—	SW	2					3							Bc	Bc	Clear & fair	17
18	28.900	43			64	30	128	26	43	40	63	61.5	—	SE	2					10							0	B	≡ Mg dull Bright Sunshine after.	18
19	28.900	42			65	29	133	26	45	43	61	57	—	W	1					0							B	B	Bright Sunshine	19
20	29.000	49			62	34	130	30	49	46	60	58	—	SW	4					0							B	Bc	Clear & fair	20
21	29.200	49			64	44	133	40	51	49	62	57	—	W	1					10							0	Bc	Mg dull Clear after	21
22	29.400	56			66	37	134	33	55	51	64	60	—	SW	2					2							B	Bc	Bright Sunshine	22
23	29.450	42			63	29	134	25	34	33	62	58.6	—	S	4					4							B	B	Bright Sunshine	23
24	29.400	45			66	30	141	27	52	49	64	60	—	W	1					0							B	B	Bright Sunshine	24
25	29.300	48			68	31	143	28	55	52	63	60	—	SW	2					0							B	B	Bright Sunshine	25
26	29.000	43			66	37	140	33	51	48	64.8	59	—	W	1					10							0	B	≡ Mg dull Bright Sunshine after	26
27	28.950	46			67	41	141	38	49	47	65	60	—	SW	1					0							B	B	Bright Sunshine	27
28	28.900	45			60	33	108	30	47	46	50	47	.02	W	1					10							0	BcR	Mg dull Clear after Evg R. 6 Pm	28
29	29.150	44			63	32	120	30	46	44	57	52.9	—	NNW	3					10							0	B	Mg dull & hazy Clear after.	29
30	29.200	43			61	28	122	24	43	40	60	56	—	W	1					7							Bc	Bc	Clear of air	30
31																														31
Sums.	29.879 (135)	1145 (14)			2647 (13)	1077 (13)			1355 (13)	1165 (13)	1938 (123)	1770 (122)	1.02 (5)							151 (5)										
Means.	28.996	43.8			58.8	33.6			44.5	42.2	56.5	52.6								5.0										
Instrumental Errors.	+060								-.4	-.5	-.4	-.5																		
									44.1	41.7	56.1	52.1																		
Corrected Means.	29.056								2.4		4.0																			
									.237		.342																			
									81%		75%																			

WEATHER NOTATION.

a.	*denotes* aurora.	m.	*denotes* mist.
b.	,, blue sky, cloudless.	p.	,, passing showers.
bc.	,, blue sky with detached clouds.	q.	,, squally.
c.	,, sky mainly cloudy, but with openings between the clouds.	r.	,, continuous rain.
o.	,, completely overcast.	s.	,, snow.
d.	,, drizzling rain.	so. ha.	,, solar halo.
e.	,, wet air, without rain falling.	t.	,, thunder.
f.	,, fog.	t. s.	,, thunder-storm.
fe.	,, wet fog.	u.	,, ugly, threatening appearance.
g.	,, gloomy.	v.	,, unusual visibility of distant objects.
h.	,, hail.	w.	,, dew.
l.	,, lightning.	x.	,, hoar frost.
lu. co.	,, lunar corona.	z.	,, dust haze.
lu. ha.	,, lunar halo.		

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

Force.		Force.		Force.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 29 ... 28.997

Corrected Mean at 9 P.M., *minus* Correction for Temp. — ... ——

Mean at Station, corrected, and at 32°, ... 29.017

Correction for height, feet above Mean Sea Level, ... + 1.050

Mean, reduced to 32°, and Sea Level, ... 30.067

Highest Reading, corrected for Index error, on th, ...

Lowest Do. Do., on th, ...

Difference, or **Monthly Range,** ...

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 16th, 25 ... 68

Lowest in Month, on 12th, ... 20

Difference, or **Monthly Range,** ... 48

Mean of all the Highest, ... 58.8

Mean of all the Lowest, ... 33.6

Difference, or **Mean Daily Range,** ... 25.2 (12.6)

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 46.2

Min. on Grass, Lowest in Month, ...

,, ,, Mean, ...

Black Bulb, Max. in Sun, Highest in Month, ...

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, ... 44.1

Wet Bulb, Mean of A.M. and P.M. Readings, ... 41.7

Computed **Temperature of Dew-Point,** ...

Do. **Elastic Force of Vapour,** ... .237

Do. **Relative Humidity** (Saturation = 100), ... 81

RAIN fell on 10 **Days; Amount in Inches,** 1.02

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	3			1	1	6	13	6		
P.M.										
Sum.	6	0	0	2	2	12	26	12	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

ADDITIONAL REMARKS.

Mo.

29.049

30.099

WEATHER SUMMARY.

Number of Days of Precipitation, ...	10
Snow, ...	5
Hail, ...	0
Thunder, ...	0
Clear Sky, ...	9
Overcast, ...	16
Fog, ...	2
Ground Frost, ...	19
Gale, ...	5

INSTRUMENTS IN USE.

Barometer, No. 1758

Dry Bulb, No. 518

Wet Bulb, No. 578

Maximum, No. 67067

Minimum, No. 66939

Solar Radiation, No. 10477

Grass Min., No. 854

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John M. Troup

(Signed) J. M. Troup

+032

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

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SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of May 1912.

Lat. 57 2 Long. 3 12W. Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	BAROMETER. 9 A.M. Barometer.	BAROMETER. 9 A.M. Attached Thermometer	BAROMETER. 9 P.M. Barometer.	BAROMETER. 9 P.M. Attached Thermometer	*SELF-REGISTERING THERMOMETERS. Screen. Max. 9 A.M.	Screen. Min. 9 P.M.	Black Bulb Max. in Sun. 9 A.M.	Min. on Grass. 9 A.M.	HYGROMETER. 9 A.M. Dry bulb.	9 A.M. Wet bulb.	9 P.M. Dry bulb.	9 P.M. Wet bulb.	†RAIN. Amount at 9 A.M.	WIND. 9 A.M. Direction.	9 A.M. Force. Scale of 0—12.	9 P.M. Direction.	9 P.M. Force. Scale of 0—12.	Anemometer. 9 A.M.	CLOUDS. 9 A.M. Species and Direction.	9 A.M. Amount (0—10).	9 P.M. Species and Direction.	9 P.M. Amount (0—10).	SUNSHINE. Hours.	THERMOMETERS under Ground. 9 A.M. 3 ins.	12 ins.	48 ins.	WEATHER. At 9 A.M.	At 3 P.M.	GENERAL REMARKS. Occurrence of Snow, Hail, Thunder, Lightning, Fog, Gales, Meteors, Auroras, Remarkable Depression or Elevation of Barometer, etc. *Mention the hour at which Storms, including Thunder and Lightning, began and ended.*	Date.
	inches.	°	inches.	°	°	°	°	°	°	°	°	°	inches.											°	°	°				
1	28·950	41			63	33	121	30	40	37	59	56	·03	SW	1					10							O	B	My dull clear after Pat night	1
2	28·800	51			58	38	118	35	47	46	58	55·8	—	W	1					0							B	Bc	Bright Sunshine	2
3	28·900	49			57	38	109	37	43	41	56	53	—	NW	3					10							O	B	My dull Bright Sunshine after	3
4	28·950	42			59	27	113	23	44	41	58·8	54	—	SE	2					7							O	Bc	My dull clear after	4
5	28·700	50			54	37	89	35	46	43	53	50	·03	NE	4					7							Bc	OP	My clear Afternoon Dull & R.	5
6	28·800	47			59	43	108	40	47	46	59·6	54	—	NE	1					10							O	Bc	clear & fair.	6
7	28·850	54			63	44	106	42	56	54	62	59	·05	SW	3					10							O	BcP	My dull clear after Evg P. t. 11 to 12	7 ?
8	29·050	56			62	43	121	41	59	57	63	60·4	·08	W	1					0							B	BcP	clear & fair Evg P.	8
9	29·050	55			63	50	122	47	56	54	60	57	—	NW	4					7							Bc	Bc	clear & fair.	9
10	29·150	52			63	39	123	35	54	51	61	58	·06	W	1					8							Bc	B	Bright Sunshine Evg P	10
11	28·450	46			59	42	120	37	45	42	60	57	—	NNW	6					10							O	Bc	My dull clear after	11
12	28·750	52			62	40	123	35	53	50	60	58	·04	NW	8					10							O	Bc	My dull & P clear after	12
13	29·000	45		?	62	27	122	23	48	45	63·6	59	—	W	1					0							B	B	Bright Sunshine	13
14	28·800	50			60	31	120	29	52	50	60	57	—	NW	3					5							Bc	B	Bright Sunshine Evg O	14
15	28·500	50		?	64	45	89	40	52	47	58	55	1·00	S	4					10							O	R	My dull Afternoon R²	15
16	28·400	45			58	41	90	37	48	44	57	53	·22	NW	6					10							OR	OR	Dull & R throughout t. 8 to 9 P.	16 T
17	28·800	47			63	34	118	28	47	45	64	61·3	·03	WNW	3					6							B	B.P	Bright Sunshine t. 11 Am. Evg P	17 T
18	28·750	48		?	64	43	121	40	49	47	66	63·5	·08	W	3					7							Bc	B	Bright Sunshine Evg P	18
19	28·900	47			58	31	98	28	49	47	59	55	·03	SW	1					8							Bc	Bc P.	clear & fair Evg P.	19
20	28·800	48			53	43	108	40	49	46	52	50	·06	W	1					10							O	BcP	My dull clear after afternoon P	20
21	28·700	43		?	54	39	103	36	46	44	56	52	·06	SW	1					8							Bc	OP	My clear Afternoon P	21
22	28·800	45			57	28	116	25	47	45	57	55	·03	W	1					8							Bc	Bc	clear & fair Evg P.	22
23	28·800	47			53	33	108	30	43	42	51	50	—	SSW	1					10							O	Bc	My dull clear after	23
24	29·100	45			63	30	123	27	46	43	62	59	—	N	3					8							Bc	B	Bright Sunshine	24
25	29·250	44			64	29	122	25	45	44	63·6	59	—	W	1					0							B	B	Bright Sunshine Evg O	25
26	29·100	48		?	56	38	121	35	49	46	59	57·5	—	N	3					0							B	B	Bright Sunshine	26
27	29·000	46			58	30	112	27	44	42	57	53	—	W	1					10							O	Bc	My dull clear after	27
28	28·900	52			59	40	113	38	48	46	58	56	—	NW	2					8							Bc	Bc	clear & fair	28
29	28·800	57			60	43	127	40	52	50	59	57	—	W	1					10							O	Bc	My dull clear after	29
30	28·800	51			57	42	103	38	46	45	58	55	—	E	2					10							O	O	Dull but fair throughout	30
31	28·950	50			60	40	112	38	49	48	59·6	55	·02	SSE	3					9							O	Bc	My dull clear after Evg P.	31
Sums.	26·750 (185)	16·3 (13)			292 (14)	231 (12)			15·9 (17)	18·8 (12)	280·2 (163)	245·5 (152)	1·82 (6)							22·6 (9)										
Means.	28·863	48·5			59·4	37·5			48·4	46·1	59·0	56·0								7·3										
Instrumental Errors.	+0·70								−·4	−·5	−·4	−·5																		
									48·0	45·6	58·6	55·5																		
Corrected Means.	28·903								2·4		3·1																			
									·276 /83		·399 /81%																			

WEATHER NOTATION.

a.	*denotes* aurora.	m.	*denotes* mist.
b.	,, blue sky, cloudless.	p.	,, passing showers.
bc.	,, blue sky with detached clouds.	q.	,, squally.
c.	,, sky mainly cloudy, but with openings between the clouds.	r.	,, continuous rain.
		s.	,, snow.
o.	,, completely overcast.	so. ha.	,, solar halo.
d.	,, drizzling rain.	t.	,, thunder.
e.	,, wet air, without rain falling.	t. s.	,, thunder-storm.
f.	,, fog.	u.	,, ugly, threatening appearance.
fe.	,, wet fog.		
g.	,, gloomy.	v.	,, unusual visibility of distant objects.
h.	,, hail.		
l.	,, lightning.	w.	,, dew.
lu. co.	,, lunar corona.	x.	,, hoar frost.
lu. ha.	,, lunar halo.	z.	,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

FORCE.		FORCE.		FORCE.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 5·3 — 28·850

Corrected Mean at 9 P.M., *minus* Correction for Temp. — —

Mean at Station, corrected, and at 32°, ·880

Correction for height, feet above Mean Sea Level, + 1·042

Mean, reduced to 32°, and Sea Level, 29·890

Highest Reading, corrected for Index error, on th, 29·922

Lowest Do. Do., on th,

Difference, or **Monthly Range,**

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 18 th, 25 — 64

Lowest in Month, on 4 th, 13 — 27

Difference, or **Monthly Range,** — 37

Mean of all the Highest, — 59·4

Mean of all the Lowest, — 37·5

Difference, or **Mean Daily Range,** — 21·9

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), — 48·5

Min. on Grass, Lowest in Month,

,, ,, Mean,

Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, — 48·0

Wet Bulb, Mean of A.M. and P.M. Readings, — 45·6

Computed **Temperature of Dew-Point,**

Do. **Elastic Force of Vapour,** — ·276

Do. **Relative Humidity** (Saturation = 100), — 83

RAIN fell on 15 **Days; Amount in Inches,** — 1·82

WIND.	SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	3	2	1	1	3	4	11	6		
P.M.										
Sum.	6	4	2	2	6	8	22	12	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

WEATHER SUMMARY.

Number of Days of Precipitation,	15
Snow,	0
Hail,	0
Thunder,	3
Clear Sky,	5
Overcast,	14
Fog,	1
Ground Frost,	11
Gale,	1

INSTRUMENTS IN USE.

Barometer, No.

Dry Bulb, No.

Wet Bulb, No.

Maximum, No.

Minimum, No.

Solar Radiation, No.

Grass Min., No.

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John M Troup

(Signed) JMT

R/8

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SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

C.R. PATHIE
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SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of June 1912.

Lat. 57 2 Long. 3 12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun 9 A.M. (°)	Min. on Grass 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	Hygrometer 9 A.M. Wet bulb (°)	Hygrometer 3 P.M. Dry bulb (°)	Hygrometer 3 P.M. Wet bulb (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force (0–12)	Wind 9 P.M. Direction	Wind 9 P.M. Force (0–12)	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date.
1	28·760	48			54	45	94	42	47	45	53	51	·01	SE	1					10							0	0	Dull but fair.	1
2	28·700	50			58	41	103	38	48	44	56	54	·03	ESE	2					10							0	Bc	Mg dull Clear after.	2
3	28·650	48			61	40	87	39	46	45	60	58	—	SE	3					8							Bc	Bc	Clear & fair.	3
4	28·500	49			63	32	104	29	46	43	61	58	·03	SW	1					10							0	OP	≡ Mg dull Afternoon P.	4 f
5	28·650	52			58	42	92	39	49	47	56	53	·09	W	3					10							0	OP	Dull but fair Evg P ≡°	5
6	28·700	51			54	44	87	40	49	47	55	53	·05	NW	2					10							OP	0	Mg P. Dull after ≡°	6
7	28·800	53			57	47	89	45	52	50	56	54	—	N	3					10							0	0	Dull but fair.	7
8	28·900	55			55	46	93	43	50	49	56	55	—	NW	1					10							0	0	Dull but fair.	8
9	28·850	52			58	45	96	42	52	47	57	54	—	W	1					10							0	Bc	Mg dull Clear after.	9
10	28·900	51			59	40	94	35	50	47	58	53	·21	SSE	2					10							0	0	≡° Dull but fair. R at night	10
11	28·800	52			57	45	90	43	48	46	56	54	—	NW	1					10							0	0	≡° Dull but fair.	11
12	28·900	53			56	48	93	45	50	49	57	54	·15	W	1					8							0	Bc	Mg dull Clear after. R at night.	12
13	28·700	52			58	43	93	39	52	50	56	54	·09	S	2					10							0	P.Bc	Mg dull Midday P. Clear after.	13
14	28·800	50		?	57	46	91	44	51	50	59	57	·18	W	1					10							0	OP.	Dull & Showery. ≡°	14
15	28·700	48			56	45	90	42	47	46	57	54	·21	ESE	1					10							0	OP.	≡ Dull but fair Evg R.	15 f
16	28·650	46		?	56	43	104	40	48	46	53·5	50	—	NNW	3					5							0	Bc	Mg dull Clear after	16
17	28·900	48			57	35	108	32	44	41	56	54	·25	NW	2					4							B	BcR	Clear & fair Evg R²	17
18	28·700	50			59	44	106	42	47	46	58	55	—	S	1					10							0	Bc	Mg dull Clear after.	18
19	28·550	55			63	43	104	40	47	46	60	58	·13	W	1					8							Bc	BcP	Clear & fair Evg R	19
20	28·600	54			58	43	113	41	49	48	58	56	—	SW	2					10							0	Bc	Mg dull Clear after	20
21	28·800	54			63	48	109	45	49	48	63	60	·13	NW	1					6							Bc	Bc	Clear & fair R at night.	21
22	28·750	57			68	53	133	51	52	50	67·5	66	—	SSW	3					10							0	Bc	Mg dull clear after Evg O.	22
23	28·700	58			68	53	130	50	63	61	69	66	—	S	4					3							B	B	Bright Sunshine.	23
24	28·700	58			63	47	120	43	58	57	63	61	·08	W	1					6							B	OP	Mg clear Afternoon Dull & P.	24
25	28·650	45			68	46	129	43	51	50	69	67	·04	SSE	1					10							0	BP	Mg dull Clear after Evg P.	25
26	28·700	52			66	40	121	37	57	54	67	65	·13	W	1					0							B	BcR	Clear & fair Evg R	26
27	28·900	54		?	61	42	100	40	56	53	63	60	·07	SW	3					8							Bc	BcP.	Clear & fair Evg P.	27
28	28·750	55		?	58	50	98	45	55	53	60	57	·18	E	3					10							0	P.	≡ Mg dull Afternoon R.	28 f
29	28·700	53			58	40	97	37	50	49	58	56	—	SSE	4					10							0	Bc	Mg dull Clear after.	29
30	28·700	54			64	43	110	40	55	53	65	62	·11	SW	1					10							0	Bc	Mg dull Clear after Evg R.	30
31																														31
Sums.	22080	57			292	119			18	260	183	209	2·19							250										
Means.	28·735	51·9			59·7	44·0			50·6	48·7	59·4	57·0								8·3										
Instrumental Errors.	+040								-·4	-·5	-·4	-·5																		
									50·2	48·2	59·0	56·5																		
Corrected Means.	28·775								2·0		2·5																			
									·312		·422																			
									86%		85																			

WEATHER NOTATION.

a.	denotes aurora.	m.	denotes mist.
b.	,, blue sky, cloudless.	p.	,, passing showers.
bc.	,, blue sky with detached clouds.	q.	,, squally.
c.	,, sky mainly cloudy, but with openings between the clouds.	r.	,, continuous rain.
o.	,, completely overcast.	s.	,, snow.
d.	,, drizzling rain.	so. ha.	,, solar halo.
e.	,, wet air, without rain falling.	t.	,, thunder.
f.	,, fog.	t. s.	,, thunder-storm.
fe.	,, wet fog.	u.	,, ugly, threatening appearance.
g.	,, gloomy.	v.	,, unusual visibility of distant objects.
h.	,, hail.	w.	,, dew.
l.	,, lightning.	x.	,, hoar frost.
lu. co.	,, lunar corona.	z.	,, dust haze.
lu. ha.	,, lunar halo.		

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

Force		Force		Force	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 61 ... 28·714

Corrected Mean at 9 P.M., *minus* Correction for Temp. — ...

Mean at Station, corrected, and at 32°, ... 28·714

Correction for height, feet above Mean Sea Level, ... + 1·031

Mean, reduced to 32°, and Sea Level, ... 29·745

Highest Reading, corrected for Index error, on th, ...

Lowest Do. Do., on th, ...

Difference, or **Monthly Range,** ...

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 22 th, 23, 25 ... 68

Lowest in Month, on 4 th, ... 32

Difference, or **Monthly Range,** ... 36

Mean of all the Highest, ... 59·7

Mean of all the Lowest, ... 44·0

Difference, or **Mean Daily Range,** ... 15·7

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 51·9

Min. on Grass, Lowest in Month, ...

" " Mean, ...

Black Bulb, Max. in Sun, Highest in Month, ...

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, ... 50·2

Wet Bulb, Mean of A.M. and P.M. Readings, ... 48·2

Computed **Temperature of Dew-Point,** ...

Do. **Elastic Force of Vapour,** ... ·312

Do. **Relative Humidity** (Saturation = 100), ... 86%

RAIN fell on 19 **Days; Amount in Inches,** 2·17

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.	2		2	4	6	4	7	5		
P.M.										
Sum.	4	0	4	8	12	8	14	10	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

~~17~~ 15

WEATHER SUMMARY.

Number of Days of Precipitation, ... 19

Snow, ... 0

Hail, ... 0

Thunder, ... 0

Clear Sky, ... 1

Overcast, ... 20

Fog, ... 3

Ground Frost, ... 1

Gale, ... 0

INSTRUMENTS IN USE.

Barometer, No.

Dry Bulb, No.

Wet Bulb, No.

Maximum, No.

Minimum, No.

Solar Radiation, No.

Grass Min., No.

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John M Troup

(Signed) J McTroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at *Balmoral*, County of *Aberdeenshire*, During the MONTH of *July* 1912.

Lat. *57.2* Long. *3.12W* Height of Cistern of the Barometer above Mean Sea Level *927* feet, above Ground *3* feet. Diameter of Rain Gauge *8* ins.

Height of Gauge above Mean Sea Level *927* feet. Height of Rim of Gauge above Ground *12* ins.

Date.	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun. 9 P.M. (°)	Min. on Grass. 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	9 A.M. Wet bulb (°)	3 P.M. Dry bulb (°)	3 P.M. Wet bulb (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force Scale of 0–12	Wind 9 P.M. Direction	Wind 9 P.M. Force Scale of 0–12	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date.
1	28.850	54			62	52	108	50	55	53	62	63	—	SW	3					4							Bc	Bc	Clear Fair	1
2	28.700	56			66	51	109	48	57	54	67	64	—	SSE	6					8							Bc	Bc	Clear Fair	2
3	29.100	52			70	50	123	47	56	53	69	67	—	NW	3					5							Bc	B	Bright Sunshine	3
4	29.200	54			74	40	124	37	56	53	72	70	—	W	1					0							B	B	Bright Sunshine	4
5	29.250	57			78	41	136	36	59	58	76	74	—	SW	4					0							B	B	Bright Sunshine	5
6	29.100	62			74	45	130	42	59	57	73	70.5	—	W	2					0							B	B	Bright Sunshine	6
7	28.900	58			74	43	131	40	61	58	74	69	—	SW	1					9							B	B	Bright Sunshine	7
8	28.750	58			79	53	133	50	56	54	78	77.6	—	SW	3					2							B	B	Bright Sunshine	8
9	28.900	56			72	38	132	35	58	56	72	73	—	SE	3					10							B	B	Bright Sunshine	9
10	28.750	57			70	43	136	37	59	56	71	68	·03	W	1					10							O	Bc	My dull Clear after Evg P.	10
11	28.800	53			71	37	123	34	56	54	69	67	·30	W	1					10							O	Bc	My dull Clear after Evg P.	11
12	28.900	61			69	54	106	52	60	57	68	66.6	·15	SE	3					10							O	P	Dull & P throughout	12
13	29.100	58			67	57	109	54	59	57	66	64.6	·03	SW	2					10							O	O	Dull & hazy throughout	13
14	29.150	57			79	53	133	50	59	57	78	73	—	W	1					3							B	B	Bright Sunshine	14
15	29.200	60			87	42	140	40	65	57	82	78.6	—	SW	4					2							B	B	Bright Sunshine	15
16	29.250	58			88	44	130	41	61	60	79	74	—	W	3					8							Bc	Bc	Clear Fair	16
17	29.200	57			78	53	132	50	63	61	78	74	—	W	1					10							O	Bc	My dull Clear after	17
18	28.950	58			60	43	101	38	59	56	61	58	—	SW	1					6							Bc	Bc	Clear Fair	18
19	29.000	53			61	43	100	40	56	52	61.6	57	—	NW	8					4							Bc	Bc	Clear Fair	19
20	29.100	53			68	38	120	35	54	52	64	62	—	SW	1					0							B	Bc	Clear Fair then Dull	20
21	29.200	55			72	41	131	39	54	51	71	67	—	ENE	1					4							B	B	Bright Sunshine	21
22	29.100	56			73	44	133	42	52	49	73	70.2	—	NW	2					6							B	B	Bright Sunshine	22
23	29.000	50			73	31	121	29	41	39	73	70	—	W	1					0							B	B	Bright Sunshine	23
24	28.950	51			68	45	120	42	52	51	68	65	·08	SW	2					10							O	Bc P	My dull Clear after Evg P.	24
25	28.900	58			66	52	94	49	57	56	65	59	·72	NW	1					10							OR	OP	My R² Afternoon Showery t&l 10.30 P.m	25 R
26	28.800	57			69	52	97	48	56	55	68.6	65	·04	SW	1					10							O	Bc	My dull Clear after Evg P. t 2.30 to 4 Pm	26 T.f
27	28.850	54			59	41	87	38	56	55	58	56	·48	NW	2					8							O	R	My dull Midday Clear Afternoon R t&l 3 to 4 Pm	27 R
28	28.500	57			57	44	90	42	56	54	56	55	·31	NE	4					10							OR	OR	Dull & R throughout t&l 2 to 4 30 Pm	28 R
29	28.200	54			59	51	94	49	53	51	59	56	—	SW	3					10							O	O	Dull but Fair	29
30	28.400	53			58	46	96	42	54	51	57	55	—	SW	2					10							O	Bc	My dull Clear after.	30
31	28.420	50			63	43	129	40	53	51	63	60	—	W	1					6							B	B	Bright Sunshine.	31
Sums.	28.470	179			296	170			202	128	269.2	185.1	2.14							195										
Means.	28.909	55.8			69.6	45.5			56.5	54.1	68.7	66.0								6.3										
Instrumental Errors.	+0.030?								-.4 / 56.1	-.5 / 53.6	-.4 / 68.3	-.5 / 65.5																		
Corrected Means.									2.5 / ·380 / 84%		2.8 / ·583 / 84%																			

WEATHER NOTATION.

a. denotes aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. denotes mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0–12).

Force.		Force.		Force.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 71
Corrected Mean at 9 P.M., *minus* Correction for Temp. —
Mean at Station, corrected, and at 32°, 28.908
Correction for height, feet above Mean Sea Level, + 1.024
Mean, reduced to 32°, and Sea Level, 29.932
Highest Reading, corrected for Index error, on th,
Lowest Do. Do., on th,
Difference, or Monthly Range,

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 15 th, 87
Lowest in Month, on 23 th, 31
Difference, or Monthly Range, 56
Mean of all the Highest, 69.6
Mean of all the Lowest, 45.5
Difference, or Mean Daily Range, 24.1
Mean Temperature of Month, ½ (Mean Max. + Mean Min.), 57.6
Min. on Grass, Lowest in Month,
" " Mean,
Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

.878
1.024
29.902

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, 56.1 ~~62.2~~
Wet Bulb, Mean of A.M. and P.M. Readings, 53.6 ~~64.6~~
Computed Temperature of Dew-Point,
Do. Elastic Force of Vapour, ·380
Do. Relative Humidity (Saturation = 100), 84
RAIN fell on 9 Days; Amount in Inches, 2.14

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.		1	1	2	1	12	9	5		
P.M.										
Sum.	0	2	2	4	2	24	18	10	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

(6)

WEATHER SUMMARY.

Number of Days of Precipitation, 9
Snow, 0
Hail, 0
Thunder, 4
Clear Sky, 5
Overcast, 13
Fog, 1
Ground Frost, 1
Gale, 2 8

INSTRUMENTS IN USE.

Barometer, No. 1758
Dry Bulb, No. 578
Wet Bulb, No. 578
Maximum, No. 67067
Minimum, No. 66839
Solar Radiation, No. 10677
Grass Min., No. 856
Sun Recorder, No. —
1-foot Therm., No. —
4-foot Therm., No. —

Observations made and Return verified by John McGroup

(Signed) J McGroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Balmoral, County of Aberdeenshire, During the MONTH of August 1912.

Lat. 57.2 Long. 3.12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12. ins.

Date.	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	Screen Max. 9 P.M. (°)	Screen Min. 9 P.M. (°)	Black Bulb Max. in Sun 9 P.M. (°)	Min. on Grass 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	Hygrometer 9 A.M. Wet bulb (°)	Hygrometer 3 P.M. Dry bulb (°)	Hygrometer 3 P.M. Wet bulb (°)	Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force (0–12)	Wind 9 P.M. Direction	Wind 9 P.M. Force (0–12)	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Therm. under Ground 3 ins.	12 ins.	48 ins.	Weather At 9 A.M.	Weather At P.M.	General Remarks	Date.
1	28.400	50			57	37	98	34	46	44	57	58	—	W	1					10							O	Bc	My dull Clear after	1
2	28.700	48			56	41	108	38	50	47	57	55	.15	NW	3					8							Bc	P.	My Clear Afternoon P.	2
3	28.900	47			59	38	98	35	49	46	57	56	—	SSW	1					7							Bc	Bc	Clear & fair.	3
4	28.850	48			58	37	90	34	47	46	57	54	1.25	E	3					10							OP	R	My dull & Showery Afternoon R².	4
5	28.400	52			61	46	97	42	48	47	60	57	.06	SSE	1					10							O	OP	My dull after noon P.	5
6	28.600	53			63	44	93	42	49	48	61	59	.04	SW	1					8							Bc	BcO	Clear & fair Evg O. P	6
7	28.450	50			56	43	102	41	49	47	54	51	.01	W	1					10							O	O	Dull but fair	7
8	28.600	53			55	48	101	46	51	49	56	53.	.05	W	2					10							O	P	My dull Afternoon Showery.	8
9	28.600	52			57	47	98	45	50	48	56	54	.09	SW	1					10							O	Bc.	My dull clear after Evg P.	9
10	28.700	50			54	48	91	46	53	50	54.6	50	.53	E	2					10							OR	OR	Dull & R throughout	10
11	28.900	49			57	47	99	45	50	48	56	54	.04	SW	2					10							Bc	OP	My clear Afternoon P.	11
12	29.000	50			57	39	102	37	46	43	58	55	.03	SSW	2					10							O	O	Dull but fair Evg P.	12
13	28.800	49			56	46	98	43	48	47	56.6	53	.03	NW	4					10							O	OP	My dull Afternoon P.	13
14	28.450	52			58	44	99	42	49	47	57.8	53	.04	SW	3					10							O	O	Dull but fair. P at night	14
15	28.560	57			58	53	91	50	56	54	58.2	54	—	NNW	2					10							O	O	Dull but fair	15
16	28.800	55			62	50	103	48	57	53	61	57	—	W	1					8							O	Bc	Clear & fair	16
17	28.880	53			60	43	101	40	56	54	58	54	.07	SW	1					6							Bc	O	My clear Afternoon Dull P at night	17
18	28.550	54			59	52	92	50	55	52	58.6	53	.29	NNE	1					6							OP	O	My Showery. Dull after R at night	18
19	28.500	53			59	47	98	45	52	50	58	56	.41	NE	3					10							OR	OR	Dull & R throughout Evg O.	19
20	28.450	50			57	51	90	48	50	49	57.5	53	.63	SW	1					10							OR	R	Dull & R throughout	20
21	28.600	51			63	46	97	49	50	48	61	58	.62	SSE	3					10							Bc	Bc	Clear & fair P at night	21
22	28.850	50			64	45	96	42	52	50	64	62	—	SSE	4					7							Bc	Bc	Clear & fair.	22
23	28.900	51			67	32	123	28	53	51	66	63	—	W	1					3							Bc	Bc	hfr clear & fair	23
24	28.600	49			58	41	112	38	51	50	58	55	—	SW	1					2							B	Bc	Clear & fair	24
25	28.700	40			64	32	113	29	42	40	64.3	60	.10	W	2					4							Bc	BcP	Clear & fair Evg R	25
26	28.550	45			61	35	92	32	40	37	59	54	.08	W	1					10							OP.	BcP	My dull & P Clear after	26
27	28.600	47			56	42	95	39	44	42	57	55	.02	NNW	3					8							O	BcP	My dull clear after Evg P.	27
28	28.700	46			54	40	104	38	44	41	54	52	.03	W	1					5							Bc	Bc	Clear & fair Evg O.P.	28
29	28.460	46			59	44	97	42	47	47	58	55	.23	E	3					10							OP.	R	Dull & R throughout	29
30	28.400	49			52	47	90	45	44	41	52.6	50	.16	NNW	4					8							O	BcR	My dull Midday clear Afternoon R	30
31	28.900	45			57	40	110	36	47	46	57	56	.20	NNW	4					2							B	BcR	Clear & fair Evg R	31
Sums.	20.270	304			264	105			287	222	250.2	149	4.56		63					254										
Means.	28.654	49.8			58.5	43.4			49.3	47.2	58.1	54.8			2.0					8.2										
Instrumental Errors.	+040								-.4	-.5	-.4	-.5																		
Corrected Means.	+020								48.9	46.7	57.7	54.3																		

2.2 3.4

.294/85 .378/79

WEATHER NOTATION.

a. denotes aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. denotes mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0–12).

Force		Force		Force	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., minus Correction for Temp. — .55	28.639
Corrected Mean at 9 P.M., minus Correction for Temp. —	
Mean at Station, corrected, and at 32°,	28.619
Correction for height, feet above Mean Sea Level,	+ 1.037
Mean, reduced to 32°, and Sea Level,	29.656
Highest Reading, corrected for Index error, on th,	
Lowest Do. Do., on th,	
Difference, or Monthly Range,	

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 23 th,	67
Lowest in Month, on 23 th, 25th	32
Difference, or Monthly Range,	35
Mean of all the Highest,	58.5
Mean of all the Lowest,	43.4
Difference, or Mean Daily Range,	15.1
Mean Temperature of Month, ½ (Mean Max. + Mean Min.),	51.0
Min. on Grass, Lowest in Month,	
,, ,, Mean,	
Black Bulb, Max. in Sun, Highest in Month,	

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings,	48.9
Wet Bulb, Mean of A.M. and P.M. Readings,	46.7
Computed Temperature of Dew-Point,	
Do. Elastic Force of Vapour,	.294
Do. Relative Humidity (Saturation = 100),	85

RAIN fell on 24 Days; Amount in Inches, 4.56

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.	2	2	3	2	2	8	8	4		
P.M.										
Sum.	4	4	6	4	4	16	16	8	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day*.

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day*.

r = 15

WEATHER SUMMARY.

Number of Days of Precipitation,	24
Snow,	0
Hail,	0
Thunder,	0
Clear Sky,	0
Overcast,	18
Fog,	2
Ground Frost,	2
Gale,	0

INSTRUMENTS IN USE.

Barometer, No.	1758
Dry Bulb, No.	518
Wet Bulb, No.	518
Maximum, No.	67067
Minimum, No.	66939
Solar Radiation, No.	10477
Grass Min., No.	854
Sun Recorder, No.	
1-foot Therm., No.	
4-foot Therm., No.	

Observations made and Return verified by John McGroup

(Signed) JMcGroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at *Balmoral*, County of *Aberdeenshire*, During the MONTH of *September* 1912.

Lat. *57 2* Long. *3 12W* Height of Cistern of the Barometer above Mean Sea Level *927* feet, above Ground *3* feet. Diameter of Rain Gauge *8* ins.

Height of Gauge above Mean Sea Level *927* feet. Height of Rim of Gauge above Ground *12* ins.

Date	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun 9 A.M. (°)	Min. on Grass 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	9 A.M. Wet bulb (°)	3 P.M. Dry bulb (°)	3 P.M. Wet bulb (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force (0–12)	Wind 9 P.M. Direction	Wind 9 P.M. Force (0–12)	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date	(margin)
1	28.700	47			58	43	112	40	48	47	59	56.9	·01	W	3					5							Bc	Bc	Clear & fair	1	
2	28.750	46			55	37	103	33	44	42	56	53.4	—	W	2					10							O	Bc	My dull Clear after	2	
3	28.970	45			55	34	92	30	40	38	57	53	·27	NNW	4					10							OR	R	Dull & R throughout	3	g
4	28.300	51			56	43	90	40	52	47	58	54	·18	WNW	6					10							O	R	My dull Afternoon & R.	4	g
5	28.500	47			56	44	103	40	48	44	57	53.5	·11	WNW	4					10							O	BcP	My dull Midday clear Afternoon P.	5	g
6	28.600	49			51	43	89	42	47	45	53	49	·02	NNW	6					10							O	Bc	My dull & P. Clear after.	6	
7	29.000	45			50	43	88	40	45	43	51	48	·24	N	3					7							Bc	BcR	My dull Afternoon Clear. Evg R.	7	
8	28.900	46			51	46	93	42	42	40	53	50	·04	ESE	1					10							Bc	BcP	Clear & fair. Evg P.	8	f g
9	29.150	42			53	34	95	30	39	37	54	50	·11	WNW	2					4							Bc	BcP	Clear & air Evg R.	9	
10	29.000	44			50	39	96	36	42	40	51	48	·03	NNW	4					10							O	Bc	My dull Clear after Evg O P.	10	
11	29.050	45			53	39	97	37	42	40	52	50	—	N	5					10							O	Bc	My dull Clear after.	11	
12	29.300	40			68	31	120	21	37	36	66	62	—	W	1					0							B	Bc	Clear & air	12	
13	29.200	45			64	33	115	31	47	43	64	61.6	—	WNW	3					6							Bc	Bc	Clear & air Evg O	13	
14	29.150	50			66	45	120	40	53	50	67	64	—	NNW	1					8							O	Bc	My O clear & air after	14	
15	29.180	52			64	43	112	39	50	48	63	60	—	W	1					0							B	Bc	Clear & air	15	
16	29.200	50			67	43	125	39	45	44	66	64	—	W	1					0							Bc	Bc	clear & fair	16	
17	29.100	53			62	45	112	40	51	49	63	60	·05	W	2					6							Bc	P	My Clear Afternoon Showery.	17	
18	29.300	50			54	45	94	42	49	47	55	52	—	NNW	1					2							Bc	Bc	Clear & air Evg Frosty.	18	
19	29.400	41			58	33	105	30	40	39	60	57	—	W	1					0							O	Bc	My dull clear after.	19	f
20	29.400	50			57	40	90	38	47	46	61	60	—	NW	1					10							O	O	Dull but fair	20	
21	29.300	45			57	31	93	27	40	38	59	56	—	SW	1					4							Bc	Bc	Clear & air Evg Frosty	21	
22	29.300	40			60	28	115	24	32	30	61	59	—	SSW	1					0							B	Bc	Hfr clear & fair.	22	
23	29.400	38			63	28	121	24	32	30	64	61	—	SSW	1					0							B	Bc	Hfr Clear & air Evg Frosty.	23	
24	29.350	39			59	27	108	23	33	31	60	57	—	SW	1					6							Bc	Bc	Hfr Clear & air Evg Frosty.	24	
25	29.200	38			57	27	105	24	32	31	56	54	—	S	3					8							O	Bc	Hfr My dull clear after.	25	
26	29.100	45			53	37	97	33	43	41	52	50	—	S	3					10							O	Bc	My dull clear after.	26	
27	29.050	46			56	38	105	33	42	40	55.5	53	—	SSE	4					8							O	Bc	My dull clear after.	27	
28	29.151	47			56	40	97	36	46	45	55	51	—	SSE	3					6							Bc	Bc	Dull but fair	28	
29	29.000	48			54	45	94	42	48	46	55	52	·20	E	4					10							O	P	My dull Afternoon Showery.	29	
30	28.700	48			57	48	79	45	48	45	53	50	1.85	SE	8					10							OR	OR	Dull & R² throughout	30	g
31																														31	
Sums.	^94 1.620	^13 172			^13 214	^14 252			^12 104	^12 42	^12 2365	^91 1488	3.11^4							190											
Means.	29.054	45.7			57.1	38.4			43.5	41.4	57.9	55.0								6.3											
Instrumental Errors.	+040								-.4	-.5	-.4	-.5																			
Corrected Means.									43.1	40.9 (2.2)	~~·23~~ 57.5	54.5	omit too high																		

·231/82

WEATHER NOTATION.

a. denotes aurora.	m. denotes mist.
b. ,, blue sky, cloudless.	p. ,, passing showers.
bc. ,, blue sky with detached clouds.	q. ,, squally.
c. ,, sky mainly cloudy, but with openings between the clouds.	r. ,, continuous rain.
o. ,, completely overcast.	s. ,, snow.
d. ,, drizzling rain.	so. ha. ,, solar halo.
e. ,, wet air, without rain falling.	t. ,, thunder.
f. ,, fog.	t. s. ,, thunder-storm.
fe. ,, wet fog.	u. ,, ugly, threatening appearance.
g. ,, gloomy.	v. ,, unusual visibility of distant objects.
h. ,, hail.	w. ,, dew.
l. ,, lightning.	x. ,, hoar frost.
lu. co. ,, lunar corona.	z. ,, dust haze.
lu. ha. ,, lunar halo.	

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

Force		Force		Force	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., minus Correction for Temp. — 45	~~29.049~~
Corrected Mean at 9 P.M., minus Correction for Temp. —	
Mean at Station, corrected, and at 32°,	29.996 ~~29.049~~
Correction for height, feet above Mean Sea Level	1.044 ~~1.044~~
Mean, reduced to 32°, and Sea Level,	30.140 ~~30.093~~
Highest Reading, corrected for Index error, on th,	
Lowest Do. Do., on th,	
Difference, or Monthly Range,	

29.096
1.044
30.140

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 12th,	68
Lowest in Month, on 24th, 25th	27
Difference, or Monthly Range,	41
Mean of all the Highest,	57.1
Mean of all the Lowest,	38.4
Difference, or Mean Daily Range,	18.7
Mean Temperature of Month, ½ (Mean Max. + Mean Min.),	47.8
Min. on Grass, Lowest in Month,	
,, ,, Mean,	
Black Bulb, Max. in Sun, Highest in Month,	

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings,	43.1
Wet Bulb, Mean of A.M. and P.M. Readings,	40.9
Computed Temperature of Dew-Point,	
Do. Elastic Force of Vapour,	·231
Do. Relative Humidity (Saturation = 100),	82

RAIN fell on 12 Days; Amount in Inches, 3·11

WIND. Direction	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	^3 5		2^1	2^1	4^1	3	9^2	^2 5^2		
P.M.										
Sum.	10	0	4	4	8	6	18	10	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

R = 9

WEATHER SUMMARY.

Number of Days of Precipitation,	
Snow,	0
Hail,	0
Thunder,	0
Clear Sky,	6
Overcast,	12
Fog,	2
Ground Frost,	9
Gale,	4

16

INSTRUMENTS IN USE.

Barometer, No.	1758
Dry Bulb, No.	518
Wet Bulb, No.	518
Maximum, No.	64067
Minimum, No.	66939
Solar Radiation, No.	10477
Grass Min., No.	856
Sun Recorder, No.	
1-foot Therm., No.	
4-foot Therm., No.	

Observations made and Return verified by John M. Troup

(*Signed*) J. McTroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

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SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at *Balmoral*, County of *Aberdeenshire*, During the MONTH of *October* 1912.

Lat. 57.2 Long. 3.12W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. Barometer. (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer. (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun. 9 A.M. (°)	Min. on Grass. 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb. (°)	Hygrometer 9 A.M. Wet bulb. (°)	Hygrometer 3 P.M. Dry bulb. (°)	Hygrometer 3 P.M. Wet bulb. (°)	†Rain. Amount at 9 A.M. (inches)	Wind 9 A.M. Direction.	Wind 9 A.M. Force. Scale of 0–12.	Wind 9 P.M. Direction.	Wind 9 P.M. Force. Scale of 0–12.	Anemometer. 9 A.M.	Clouds 9 A.M. Species and Direction.	Clouds 9 A.M. Amount (0–10).	Clouds 9 P.M. Species and Direction.	Clouds 9 P.M. Amount (0–10).	Sunshine. Hours.	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather. At 9 A.M.	Weather. At 9 P.M.	General Remarks. Occurrence of Snow, Hail, Thunder, Lightning, Fog, Gales, Meteors, Auroras, Remarkable Depression or Elevation of Barometer, etc. *Mention the hour at which Storms, including Thunder and Lightning, began and ended.*	Date.
1	28·400	43			49	45	80	42	46	43	48	46	·39	E	7					10							OR	OR	Dull & R throughout	1
2	28·700	41			48	32	81	29	35	33	48·4	47	·25	E	6					10							OS	OS	Dull & Sn Showers throughout	2
3	29·100	38			47	28	100	24	34	32	47·3	45	·03	NNW	1					0							B	Bc	Hfr [?]° Clear & fair	3
4	29·380	40			52	34	110	30	42	41	52	50	~~0~~	WNW	3					7							Bc	Bc	Clear & fair	4
5	29·100	43			53	40	112	35	42	40	52·8	51	·03	SW	1					7							Bc	O	Dull but fair P at night	5
6	28·900	45			55	40	107	35	44	42	56	54	·02	W	3					8							Bc	Bc	Clear & fair	6
7	28·800	48			57	40	110	38	52	50	57·5	53	·02	W	2					10							O	Bc	My dull Clear after	7
8	29·100	45			58	36	107	33	45	42	58	55	—	S	2					2							B	Bc	Clear & fair	8
9	29·100	47			61	36	109	32	41	39	60	58	—	W	2					6							Bc	Bc	Clear & fair	9
10	29·150	42			63	30	112	27	46	44	62	60	—	SW	1					6							Bc	Bc	Clear & fair	10
11	28·950	49			58	37	107	33	46	43	57·8	55	—	W	1					10							O	Bc	My dull Clear after [illegible]°	11
12	29·200	40			57	33	100	30	37	36	57·6	54	—	W	1					4							Bc	O	My Clear afternoon O	12
13	28·900	50			56	41	93	38	50	47	56	53	·17	W	1					10							O	OP	Dull but fair P at night	13
14	28·600	55			57	45	96	40	53	51	57	54	·02	NNW	3					10							OP	O	My Showery 11am clear after.	14
15	29·000	45			55	34	90	30	51	50	55·6	52	·09	SW	2					10							O	OP	Dull but fair Evg P.	15
16	28·700	46			55	41	89	38	47	45	55	52	—	NW	2					10							O	Bc	My dull Clear after	16
17	28·800	41			53	33	84	30	42	40	55	51	·03	W	1					6							Bc	P	My Clear afternoon Showy. 12.30Pm 2Pm	17
18	28·700	43			56	25	86	22	43	41	56	53	·08	SSE	2					10							O	O	Dull but fair Evg P.	18
19	28·800	44			53	31	104	28	42	40	53·5	50	·04	W	1					4							Bc	OP	Clear & fair. 3Pm	19
20	28·400	43			50	38	87	33	42	40	51	48	·12	SSW	7					10							OP	OP	9.5am Dull & Showery 3.25 Pm	20
21	28·150	33			52	21	90	17	28	27	52	50	—	SW	1					0							Bf	B	Hfr Clear & fair	21
22	28·600	36			54	26	91	23	34	32	53·5	50	—	W	1					10							O	O	Dull but fair.	22
23	28·400	39			47	31	83	27	36	34	48	44	·63	SE	3					10							O	P	My dull afternoon P R at night	23
24	28·200	42			52	36	80	33	42	40	51	48·5	·54	SE	2					10							OR	OR	Dull & R throughout	24
25	28·450	50			53	38	83	35	46	44	54	51	·25	E	1					10							OR	OP	My R Afternoon Showery.	25
26	28·700	36			50	29	79	25	40	38	49·8	47	·48	SW	4					0							B	OP	My Clear 9am Showery after	26
27	28·400	40			52	39	70	35	39	37	53	49	·27	E	2					10							O	P	Dull & Showery.	27
28	28·250	41			53	31	71	27	35	33	54	51	·29	W	1					0							Bc	BcR	Hfr Clear & fair Evg R.	28
29	28·100	43			49	38	90	35	44	41	49	46	·21	SSE	2					10							OR	Bc	My dull & R Afternoon Clear.	29
30	28·200	42			48	34	91	30	39	38	46	44	1·15	NE	1					10							OP	OR	Dull & R throughout	30
31	28·700	41			46	35	80	30	39	37	45	43	·30	NE	6					10							OS	OS	Dull & Sn Showers throughout	31
Sums.	132 21·850	11 91			14 99	12 147			13 62	10 00	165 101·8	11 145	5·41		73					230										
Means.	28·705	42·9			53·2	34·7			42·0	40·0	53·3	50·5			2·4					7·4										
Instrumental Errors.	+050								-·4	-·5	-·4	-·5																		
Corrected Means.									41·6	39·5 2·1	52·9	50·0 2·9																		

WEATHER NOTATION.

a. *denotes* aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. *denotes* mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0–12).

Force.		Force.		Force.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

·220/84. ·323/81.

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 38

Corrected Mean at 9 P.M., *minus* Correction for Temp. —

Mean at Station, corrected, and at 32°, 28·767

Correction for height, feet above Mean Sea Level, + 1·050

Mean, reduced to 32°, and Sea Level, 29·767

Highest Reading, corrected for Index error, on th,

Lowest Do. Do., on th,

Difference, or Monthly Range,

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 10 th, 63

Lowest in Month, on 21 th, 21

Difference, or Monthly Range, 42

Mean of all the Highest, 53·2

Mean of all the Lowest, 34·7

Difference, or Mean Daily Range, 18·5

Mean Temperature of Month, ½ (Mean Max.+Mean Min.), ~~45·0~~

Min. on Grass, Lowest in Month, 44·0c

,, ,, Mean,

Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, 41·6

Wet Bulb, Mean of A.M. and P.M. Readings, 39·5

Computed Temperature of Dew-Point,

Do. Elastic Force of Vapour, ·220

Do. Relative Humidity (Saturation = 100), 84%

RAIN fell on 22 Days; Amount in Inches, 5·41

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.	1	2	4	3	2	6	11	2	0	
P.M.										
Sum.	2	4	8	6	4	12	22	4	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

1·052
46
1·016

2·15
28·7 — 30·0
13 300
46

WEATHER SUMMARY.

Number of Days of Precipitation,

Snow, 2

Hail, 0

Thunder, 0

Clear Sky, 4

Overcast, 18

Fog, 0

Ground Frost, 6

Gale, 0

INSTRUMENTS IN USE.

Barometer, No.

Dry Bulb, No.

Wet Bulb, No.

Maximum, No.

Minimum, No.

Solar Radiation, No.

Grass Min., No.

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John McTroup

(*Signed*) J McTroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Balmoral, County of Aberdeenshire, During the MONTH of November 1912.

Lat. 57 2 Long. 3 12 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date	Barometer 9 A.M. Barometer (inches)	Barometer 9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	Barometer 9 P.M. Attached Thermometer (°)	*Self-Registering Thermometers Screen Max. 9 P.M. (°)	Screen Min. 9 P.M. (°)	Black Bulb Max. in Sun 9 P.M. (°)	Min. on Grass 9 A.M. (°)	Hygrometer 9 A.M. Dry bulb (°)	9 A.M. Wet bulb (°)	9 P.M. Dry bulb (°)	9 P.M. Wet bulb (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	9 A.M. Force Scale of 0–12	Wind 9 P.M. Direction	9 P.M. Force Scale of 0–12	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0–10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0–10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks	Date
1	29.150	53			43	30	92	28	33	32	43.5	40	.27	NW	3					10							OR	OS	My R Sn showers after.	1 *°
2	29.100	37			48	33	93	30	36	34	47	46	—	W	2					7							Bc	Bc	Clear & air.	2
3	29.200	37			x 46	29	x 91	27	36	33	48	47	.03	SW	1					10							O	Bc	My dull clear after Evg. Frosty	3
4	28.950	37			49	22	93	18	34	32	48.8	47	.09	NW	1					10							O	OP	My dull. Afternoon P.	4
5	28.800	46		New Great thermometer No M 58	57	40	116	37	42	40	56	49	—	SW	1					10							O	Bc	My dull Clear after	5
6	28.950	48			54	43	112	40	46	45	55	53	—	W	1					0							Bc	Bc	Clear & air	6
7	29.000	47			57	43	113	38	47	45	54	53	—	W	1					9							O	Bc	My dull clear after	7
8	29.150	45			58	34	112	31	48	46	56	54	—	SW	2					0							B	Bc	Clear & air	8
9	28.800	47			57	33	103	30	49	46	54	53	.12	W	3					7							Bc	OP	My clear. Afternoon Dull & P. 9.30am 2.10pm	9
10	28.460	36			46	31	86	28	38	37	47	44	.18	N	5					9							OS	O	Dull & Sn Showers throughout	10 *°
11	28.300	36			46	33	84	30	36	33	44	43	.35	WNW	8					10							OS	S	Dull & Sn Showers throughout	11 *° g
12	28.700	42			46	33	68	30	40	36	46	45	.85	N	8					10							OS	OS	Dull & * throughout	12 * g
13	28.900	38			47	36	66	32	35	34	45	43	.21	N	10					10							OR	OR	Dull & R throughout 10 am	13 g
14	28.900	37			56	34	106	31	39	37	55	54	—	W	2					6							Bc	Bc	Clear & air	14
15	29.050	47			54	39	90	35	45	44	52	50	—	SW	1					10							O	Bc	My dull clear after.	15
16	29.000	45			50	38	94	34	47	46	49	47	—	W	1					10							O	O	Dull but fair.	16
17	28.800	37			51	31	100	27	36	34	51	50	—	SW	1					3							Bc	Bc	Clear & air	17
18	28.900	35			49	22	96	19	28	27	49	46	.02	W	1					2							B	Bc	Clear & air. Evg P.	18
19	28.700	40			48	26	85	22	39	37	48.5	46	—	NW	4					6							Bc	Bc	Clear & air	19 g²
20	28.700	41			45	38	87	35	42	40.5	44	43	.03	NNW	8					10							Bc	O	Morning Clear dull after	20 g²
21	28.900	42			53	47 x	69	35	40	37	52	50	03	SW	1					0							O	BCP	Clear and fair Evg P	21
22	29.000	52		53	53	40	89	38	52	48	47	48	—	W	1					6							BC	O	Mg Clear afternoon dull	22
23	28.950	45		49	49	38	90	30	44	46	44	43	04	W	1					4							BC	BC	Clear and fair [illegible]	23
24	28.700	42		46.5	47	39	75	35	42	40	43	41	.48	NW	2					4							BC	O.R	Mg bright Showery after.	24
25	28.300	40		38.5	39	35	67	35	37	36	38	37	.22	WSW	2					8							OR	OR	Overcast 1.Pm Sleet Showers	25 sl
26	27.800	38		45	45	33	68	30	37	35.5	40	39.2	.48	NE	3					10							OR	OS	* g overcast	26 * g
27	28.150	35		36	36	32	48	30	33	31	30	29	.10	NW	8					8							O	BC	Clear and fair	27 g
28	28.575	25		29	29	12	80	9	10	11	21.3	20	—	SW	1					4							Bc	B	Clear and fair	28
29	28.400	16		23	23	7	69	0	8	6	13	12	—	SW	0					3							B	B	Clear and fair	29
30	28.450	19		30	30	6	67	3	20	19	28	27	.49	SW	0					1							B	O	Mg Clear and fair. Pm *	30 *
31																														31
Sums.	22.735 (155)	285 (15)			206 (16)	57 (12)			219 (14)	1680 (131)	1441 (142)	992 (12)	3.99 (7)		83					197										
Means.	28.758	39.5			46.9	31.9			37.3	35.6	44.8	43.3			2.8					6.6										
Instrumental Errors.	+0.30								-.4	-.5 (1.8)	-.4	-.5 (1.6)																		
Corrected Means.									36.9 (.185 / 85)	35.1	44.4 (.257 / 88)	42.8																		

WEATHER NOTATION. ☒ 8

a. denotes	aurora.	m. denotes	mist.
b. ,,	blue sky, cloudless.	p. ,,	passing showers.
bc. ,,	blue sky with detached clouds.	q. ,,	squally.
c. ,,	sky mainly cloudy, but with openings between the clouds.	r. ,,	continuous rain.
o. ,,	completely overcast.	s. ,,	snow.
d. ,,	drizzling rain.	so. ha. ,,	solar halo.
e. ,,	wet air, without rain falling.	t. ,,	thunder.
f. ,,	fog.	t. s. ,,	thunder-storm.
fe. ,,	wet fog.	u. ,,	ugly, threatening appearance.
g. ,,	gloomy.	v. ,,	unusual visibility of distant objects.
h. ,,	hail.	w. ,,	dew.
l. ,,	lightning.	x. ,,	hoar frost.
lu. co. ,,	lunar corona.	z. ,,	dust haze.
lu. ha. ,,	lunar halo.		

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

Force		Force		Force	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — .28

Corrected Mean at 9 P.M., *minus* Correction for Temp. —

Mean at Station, corrected, and at 32°, 28.760

Correction for height, feet above Mean Sea Level, + 1.014

Mean, reduced to 32°, and Sea Level, 29.774

Highest Reading, corrected for Index error, on th,

Lowest Do. Do., on th,

Difference, or **Monthly Range,**

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 8th, 58

Lowest in Month, on 30th, 6

Difference, or **Monthly Range,** 52

Mean of all the Highest, 46.9

Mean of all the Lowest, 31.9

Difference, or **Mean Daily Range,** 15.0

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), 39.4

Min. on Grass, Lowest in Month,

" " Mean,

Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, 36.9

Wet Bulb, Mean of A.M. and P.M. Readings, 35.1

Computed **Temperature of Dew-Point,**

Do. **Elastic Force of Vapour,** .185

Do. **Relative Humidity** (Saturation = 100), 85

RAIN fell on 17 **Days; Amount in Inches,** 3.99

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	3	1				10	11	5		
P.M.										
Sum.	6	2	0	0	0	20	22	10	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

WEATHER SUMMARY.

Number of Days of Precipitation,

Snow, 7

Hail, 0

Thunder, 0

Clear Sky, 4

Overcast, 12

Fog, 0

Ground Frost, 17

Gale, 7

INSTRUMENTS IN USE.

Barometer, No. 1258

Dry Bulb, No. 578

Wet Bulb, No. 518

Maximum, No. 67067

Minimum, No. 66939

Solar Radiation, No. 10477

Grass Min., No. 854

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John M Loup

(Signed) J M Loup

1.060

300 287 39 16 48

R = 12

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

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SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of December 1912.

Lat. 57 2 Long. 3 12W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. (inches)	Attached Thermometer 9 A.M. (°)	Barometer 9 P.M. (inches)	Attached Thermometer 9 P.M. (°)	*Self-Registering Thermometers: Screen Max. 9 A.M. (°)	Screen Min. 9 A.M. (°)	Black Bulb Max. in Sun 9 P.M. (°)	Min. on Grass 9 A.M. (°)	Hygrometer: Dry bulb 9 A.M. (°)	Wet bulb 9 A.M. (°)	Dry bulb 9 P.M. (°)	Wet bulb 9 P.M. (°)	†Rain Amount at 9 A.M. (inches)	Wind 9 A.M. Direction	Wind 9 A.M. Force (Scale of 0—12)	Wind 9 P.M. Direction	Wind 9 P.M. Force (Scale of 0—12)	Anemometer 9 A.M.	Clouds 9 A.M. Species and Direction	Clouds 9 A.M. Amount (0—10)	Clouds 9 P.M. Species and Direction	Clouds 9 P.M. Amount (0—10)	Sunshine Hours	Thermometers under Ground 9 A.M. 3 ins. (°)	12 ins. (°)	48 ins. (°)	Weather At 9 A.M.	Weather At 9 P.M.	General Remarks (Occurrence of Snow, Hail, Thunder, Lightning, Fog, Gales, Meteors, Auroras, Remarkable Depression or Elevation of Barometer, etc. Mention the hour at which Storms, including Thunder and Lightning, began and ended.)	Date.
1	28.525	21	24		24	10	75	6	17	15	14	12	—			SW	1			4							Bc	B	☒ clear & fair	1
2	28.600	17	31		31	2	73	0	7	5	11	9	—			SW	0			2							B	B	☒ clear & fair	2
3	29.250	24	47		47	15	60	10	24	22	39.5	38	—			W	0			10							O	O	☒ Overcast	3
4	28.850	39	50		50	36	56	36	46	45	49	48	·02			SW	1			10							O	O	☒ Overcast.	4
5	28.750	48	48		48	45	59	41	47	45	42	40	—			E	2			8							O	O	Dull but fair	5
6	28.450	36	44		44	27	69	23	40	38	40	38	·03			W	1			9							O	O	Dull but fair	6
7	28.700	40	47		47	38	70	32	44	43	43	41	·03			S	1			8							O	O	Dull but fair	7
8	28.800	41	48		48	40	81	35	43	41	47	45	—			WNW	4			10							O	O	Dull but fair	8
9	28.600	40	46		46	23	74	28	42	40	45	44	—			SSW	5			10							O	Bc	Hy dull clear after	9
10	28.800	42	53		53	31	71	27	43	41	49	47	—			SW	1			4							Bc	Bc	clear & fair	10
11	28.100	42	52.5		52	33	72	29	43	41	50	48	·04			W	3			8							O	P.	My dull afternoon P ☔	11
12	28.300	29	43		43	32	71	28	37	35	39	38	·12			SW	1			2							Bc	O	My clear afternoon Dull Eve P	12
13	28.250	38	53		53	32	70	20	41	40	51	50	·43			E	1			10							OR	O	My showery afternoon Dull Eve R. ☔	13
14	28.200	45	43		43	28	65	25	41	40	43.5	40	·27			NW	8			10							OR	OR	☔ My R afternoon Dull Eve R	14
15	28.465	37	39		39	36	57	33	37	37	39	36	·37			N	6			10							OS	OS	☒ Dull & * throughout	15 *
16	28.470	34	38		38	30	38	25	36	34	37	34	·23			NW	1			10							OS	OS	☒ Dull & * throughout E 7.30 to 8 Am	16 *
17	28.350	33	34		34	28	56	26	34	32	33.8	31	·22			N	2			10							OS	OS	☒ Dull & * throughout	17 *
18	28.150	32	37		37	27	59	24	30	28	36.7	34	—			NW	1			6							Bc	Bc	☒ clear & fair Eve Frosty	18
19	28.200	33	44		44	24	67	21	36	32	43	41	—			W	1			10							O	Bc	☒ My dull clear after	19
20	28.400	45	50		50	36	90	33	40	38	49	46	·13			SW	1			6							O	Bc	My dull 10.30 am clear after	20
21	28.650	47	46		46	40	85	28	43	41	46	43.5	—			NW	1			5							Bc	O	My clear Dull after	21
22	28.600	41	44		44	33	76	30	37	34	43	41	—			SW	1			3							Bc	O	My clear Dull after	22
23	28.550	37	44		44	27	81	24	37	35	43	40	·03			SW	1			10							O	O	Dull but fair	23
24	28.500	38	45		45	27	80	26	38	36	42	41	·69			W	1			10							O	R	My dull afternoon R	24
25	28.400	40	44		44	38	81	35	39	37	44	41	·08			NW	6			8							B	OP	☔ My clear afternoon Dull & P	25
26	28.400	36	33		33	27	66	24	34	31	34	31	—			W	1			8							O	O	Dull but fair Eve Frosty	26
27	28.550	31	45		45	23	79	19	34	32	46	42	·38			W	1			0							B	OR	My clear afternoon Dull & R	27
28	28.000	40	46		46	33	78	31	44	41	45	44	·03			W	2			10							O	Bc	My dull & P afternoon clear 10.5 to 12 ?	28
29	28.300	45	45		45	28	73	25	33	31	44	41	·04			SW	1			10							O	O	Dull but fair Eve P	29
30	28.800	33	46		46	31	71	27	36	35	46	43	·05			W	1			6							Bc	Bc	clear & fair Eve P	30
31	28.450	45	48		48	37	65	33	44	43	47	44	·22			SW	2			10							O	P	My dull afternoon P.	31
Sums.	471 15.410	12 229			14 117	13 09			13 217	10 158	152 415	11 281.5	5 373				59			232										
Means.	28.497	37.4			43.8	30.3			37.0	35.1	41.3	39.1					1.9			7.5										
Instrumental Errors.	?		?						-.4	-.5	-.4	-.5																		
Corrected Means.									36.6	34.6	40.9	38.6																		
									2.0		2.3																			

·180/83 ·209/83

BAROMETER.

Corrected Mean at 9 A.M., *minus* Correction for Temp. — 22

Corrected Mean at 9 P.M., *minus* Correction for Temp. —

Mean at Station, corrected, and at 32°, 28.475

Correction for height, feet above Mean Sea Level, + 1.014

Mean, reduced to 32°, and Sea Level, 1.489

Highest Reading, corrected for Index error, on th,

Lowest Do. Do., on th,

Difference, or **Monthly Range,**

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 10 th, 13* 53

Lowest in Month, on 2 th, 2

Difference, or **Monthly Range,** 51

Mean of all the Highest, 43.8

Mean of all the Lowest, 30.3

Difference, or **Mean Daily Range,** 13.5

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), 37.1

Min. on Grass, Lowest in Month,

" " Mean,

Black Bulb, Max. in Sun, Highest in Month,

ADDITIONAL REMARKS.

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings, 36.6

Wet Bulb, Mean of A.M. and P.M. Readings, 34.6

Computed **Temperature of Dew-Point,**

Do. **Elastic Force of Vapour,** ·180

Do. **Relative Humidity** (Saturation = 100), 83%

RAIN fell on 19 **Days; Amount in Inches,** 3.73

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	2		2		2	10	9	6		
P.M.										
Sum.	4	0	4	0	4	20	18	12	0	

* If Observations are taken at 9 A.M. only, the reading of the **Maximum** thermometer must be entered to the *previous day.*

† **Rain** to be measured at 9 A.M. and the amount entered to the *previous day.*

R = 12

WEATHER SUMMARY.

Number of Days of Precipitation,

Snow, 3

Hail, 0

Thunder, 0

Clear Sky, 2

Overcast, 16

Fog, 0

Ground Frost, 20

Gale, 4

INSTRUMENTS IN USE.

Barometer, No. 1758

Dry Bulb, No.

Wet Bulb, No.

Maximum, No.

Minimum, No.

Solar Radiation, No.

Grass Min., No.

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

WEATHER NOTATION.

a. *denotes* aurora.
b. ,, blue sky, cloudless.
bc. ,, blue sky with detached clouds.
c. ,, sky mainly cloudy, but with openings between the clouds.
o. ,, completely overcast.
d. ,, drizzling rain.
e. ,, wet air, without rain falling.
f. ,, fog.
fe. ,, wet fog.
g. ,, gloomy.
h. ,, hail.
l. ,, lightning.
lu. co. ,, lunar corona.
lu. ha. ,, lunar halo.
m. *denotes* mist.
p. ,, passing showers.
q. ,, squally.
r. ,, continuous rain.
s. ,, snow.
so. ha. ,, solar halo.
t. ,, thunder.
t. s. ,, thunder-storm.
u. ,, ugly, threatening appearance.
v. ,, unusual visibility of distant objects.
w. ,, dew.
x. ,, hoar frost.
z. ,, dust haze.

BEAUFORT SCALE FOR ESTIMATING FORCE OF WIND—(0—12).

FORCE.		FORCE.		FORCE.	
0	Calm.	5	Fresh Breeze.	9	Strong Gale.
1	Light Air.	6	Strong Breeze.	10	Whole Gale.
2	Slight Breeze.	7	High Wind.	11	Storm.
3	Gentle Breeze.	8	Gale.	12	Hurricane.
4	Moderate Breeze.				

Observations made and Return verified by John McGroup

(Signed) J McGroup

1067
− 53
1014

Balmoral
1912

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

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