SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Balmoral, County of Aberdeenshire, During the MONTH of January 1911.

Lat. 57 2 Long. 3.12W. Height of Cistern of the Barometer above Mean Sea Level 937 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 934 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. (°)	Screen Max. 9 P.M. (°)	Screen Min. 9 P.M. (°)	Black Bulb Max. in Sun 9 P.M. (°)	Min. on Grass 9 A.M. (°)	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 (0–12)	Wind 9 P.M. Direction	Wind 9 P.M. Force (0–12)	Anemometer 9 A.M.
1	29.000	35			49	30	91	26	32	31			·16	WNW	6			
2	29.100	34			35	30	73	28	35	34			·23	NW	8			
3	29.150	34			37	30	70	26	34	32			·08	ESE	2			
4	29.250	26			36	16	74	14	23	21			–	SE	1			
5	28.950	34			40	28	78	24	28	27			·04	W	1			
6	28.250	38			38	32	95	28	38	35			·03	ESE	4			
7	28.850	31			35	21	95	20	29	28			·02	W	1			
8	28.730	41			48	37	64	34	47	45			–	SW	1			
9	28.850	35			45	28	70	23	36	34			–	W	4			
10	29.150	34			48	38×	90	30	39	36			·06	W	2			
11	28.300	44			44	35	76	32	46	45			·78	NE	1			
12	28.900	31			38	28	75	25	30	29			·26	NNW	8			
13	29.100	30			40	28	70	26	31	30			–	W	1			
14	29.000	35			44	29	78	26	34	31			–	SW	1			
15	28.950	37			45	32	106	28	40	38			–	NW	4			
16	29.250	36			48	31	81	29	35	32			–	NW	1			
17	29.200	42			49	33	80	30	44	43			–	W	4			
18	29.350	43			48	43	100	40	44	43			–	W	6			
19	29.300	40			49	31	106	29	41	40			–	WNW	1			
20	29.200	41			50	40	100	38	41	40			–	W	1			
21	28.450	37			48	28	84	23	36	33			·02	W	0			
22	28.250	38			40	34	84	31	37	36			–	W	1			
23	29.150	40			48	33	90	31	40	38			–	SE	1			
24	28.850	41			46	34	91	32	42	41			·05	SE	4			
25	28.760	40			46	36	91	34	41	40			·04	W	1			
26	28.700	41			48	39	90	36	42	40			·11	SW	1			
27	29.000	43			46	41	87	38	44	42			–	W	1			
28	29.200	35			48	28	90	25	32	30			–	SW	1			
29	29.100	40			47	33	90	29	41	40			–	W	1			
30	29.250	40			49	35	94	32	38	37			–	SW	1			
31	29.450	38			46	17	98	14	26	24			–	SW	1			
Sums.					18 / 148	13 / 48			12 / 216	10 / 167			~~1.86~~ 5 / 1.88 ✓		72			
Means.					44.8	31.5			37.0	35.4					2.3			
Instrumental Errors.					✓	✓			16									
Corrected Means.																		

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	Therm. 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		6							Bc	O	⊠° ƒ² Sn Sh ⟶ P at night	1	g. *.
2		10							O	BcP	⊠ ƒ² O P throughout.	2	g.
3		10							O	O	⊠ ƒ² Dull then Clear after	3	g.
4		10							O	O	⊠ Hazy.	4	
5		10							O	OP	⊠ Dull but fair Evg P.	5	
6		10							OP	O	⊠ Mg P Clear after.	6	
7		6							Bc	O	⊠° Mg Clear afternoon O. Evg P.	7	
8		10							O	Bc	Mg dull Clear after ⊕	8	A.
9		6							Bc	Bc	Clear & fair.	9	
10		8							Bc	OP	Mg Clear Afternoon dull Evg P.	10	
11		10							O	S	Mg dull Afternoon * ⟶ ƒ² ⊠	11	* g.
12		10							OS	S	⊠² ⟶² ƒ² *² Stormy.	12	*². g.
13		6							Bc	Bc	⊠² Clear & fair.	13	
14		6							Bc	Bc	⊠ Clear & fair. U.	14	
15		6							Bc	Bc	⊠ Clear & fair.	15	
16		2							B	Bc	⊠ Clear & fair Evg O.	16	
17		8							Bc	Bc	⊠° Clear & fair ƒ	17	g
18		6							Bc	Bc	ƒ Clear & fair.	18	g
19		8							Bc	Bc	Clear & fair mild.	19	
20		6							Bc	Bc	Clear & fair mild.	20	
21		0							B	Bc	Mg Clear Midday O Clear after Evg P	21	
22		10							O	O	Dull but fair.	22	
23		10							O	O	Dull but fair.	23	
24		10							O	OP	Dull but fair Evg P ƒ	24	g
25		6							Bc	BcP	Clear & fair Evg P.	25	
26		10							O	P	Dull & Showery.	26	
27		8							Bc	Bc	Clear & fair	27	
28		4							BcO	Bc	Mg Clear Afternoon O	28	
29		10							Bc	Bc	Clear & fair.	29	
30		8							Bc	Bc	Clear & fair Evg O	30	
31		0							B	Bc	Hf Clear & fair Evg Frosty	31	
Sums.		220											
Means.		7.4											

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.				

BAROMETER.

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

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

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

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

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

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

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

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

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 20 th, ... 50

Lowest in Month, on 4 th, ... 16

Difference, or **Monthly Range,** 34

Mean of all the Highest, ... 44.8

Mean of all the Lowest, ... 31.5

Difference, or **Mean Daily Range,** 13.3

Mean Temperature of Month, ½ (Mean Max.+Mean Min.), ... 38.2

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, ... 37.0

Wet Bulb, Mean of A.M. and P.M. Readings, ... 35.4

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

Do. **Elastic Force of Vapour,** .... ·189

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

RAIN fell on 13 **Days; Amount in Inches,** 1.88 ✓

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	1	1	2	3		5	16	3		
P.M.										
Sum.	2	2	4	6	0	10	32	6	0	2.3

* 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, ... 13

Snow, ... 3

Hail, ... 0

Thunder, ... 0

Clear Sky, ... 2

Overcast, ... 13

Fog, ... 0

Ground Frost, ... 20

Gale, ... 4

G.T. = 30 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. 856

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John McGroup, Balmoral

(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 1911.

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. (°)	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.	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	29.600	19			46	13	100	10	18	17			—	W	0					0							B	Bc	hfr clear & fair Evg Frosty.	1
2	29.500	21			44	11	90	8	16	14			—	SW	1					8							Bc	Bc	hfr clear & fair Evg O.	2
3	29.550	28			42	38	80	35	38	36			—	NW	1					8							Bc	Bc	Clear & fair	3
4	29.500	39			46	32	91	30	36	35			—	WNW	1					8							Bc	Bc	~~hfr~~ clear & fair Evg Frosty	4
5	29.450	26			44	13	80	11	29	28			—	W	1					10							O	O	hfr Dull but fair.	5
6	29.400	32			43	25	84	22	32	31			—	W	1					10							O	O	Dull but fair	6
7	29.500	37			41	33	86	30	38	36			—	NNW	1					10							O	O	Dull but fair	7
8	29.500	24			40	15	93	13	20	18			—	W	4					0							B	Bc	Clear & fair.	8
9	29.150	36			42	26	86	23	32	31			—	SW	1					10							O	HO	Dull & Hazy.	9
10	28.700	41			45	32	94	29	36	34			—	SE	2					10							OH	B	Mg dull & hazy clear after	10
11	28.900	24			44	11	96	8	21	20			—	W	1					0							B	Bc	hfr clear & fair Evg Frosty	11
12	29.000	32			44	18	90	14	30	28			·02	SW	1					0							B	Bc	hfr clear & fair Pat night.	12
13	29.050	40			46	33	91	28	41	40			—	W	1					7							Bc	Bc	clear & fair.	13
14	29.050	44			46	41	98	38	42	41			·05	SW	2					8							Bc	Bc	clear & fair Pat night	14
15	29.150	35			47	33	94	29	36	34			·02	W	1					10							O	Bc	Mg dull & P. clear after	15
16	28.500	42			52	33	88	30	43	42			·11	E	6					9							O	BcP	hfr clear & fair Thd. am P at night hfr	16 g.
17	28.650	43			50	41	91	38	42	40			·18	NNW	6					10							O	BcR	Mg dull clear after & at night.	17
18	28.200	46			50	38	90	35	48	47			·04	WNW	4					10							OP	Bc	Mg dull & Showery. Afternoon clear * at ng	18 *
19	28.100	37			48	33	86	30	38	37			·15	NW	8					10							OS	OS	~~Dull~~ hfr & * Stormy	19 *.g.
20	28.350	53			38	21	80	17	32	29			·10	NW	8					6							Bc	S	~~Dull~~ Mg clear afternoon *	20 *
21	28.500	30			44	22	86	20	36	34			·08	SW	1					10							OP	Bc	~~Dull~~ Mg Showery clear after	21
22	28.100	39			43	32	104	30	37	35			·28	NE	1					10							OS	F.	~~Dull~~ Dull & Showery	22
23	27.700	40			46	34	80	31	44	42			·49	SW	3					10							O	OP	Dull & Showery, 10 a.m. to 12.30 p.m. Evg R	23
24	28.100	41			44	34	84	32	36	35			·06	NW	8					6							Bc	S	Mg clear Afternoon * hfr	24 *g
25	28.250	36			48	29	121	26	36	34			·19	SW	1					10							OP	Bc	Mg Showery Afternoon clear. * night ~~W~~	25 * A.
26	28.450	36			44	31	104	28	39	38			—	WNW	8					4							Bc	Bc	~~Dull~~ clear & fair hfr	26 g.
27	28.700	30			46	22	88	19	28	26			·13	SW	1					10							OH	O	~~Dull~~ Mg dull & hazy. Afternoon P	27
28	27.950	42			47	35	110	33	41	40			·05	NE	2					10							OP	Bc	8 a.m. to 10 a.m. Mg P. Afternoon clear	28
29																														29
30																														30
31																														31
Sums.					11 131	9 219			13 125	12 82			2.00 ✓		7					24										
Means.					44.7	27.8			34.5	32.9					2.8					7.6										
Instrumental Errors.					✓	✓			·168																					
Corrected Means.									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. — .....

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

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

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

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

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, ... 52

Lowest in Month, on 2th, 11 11

Difference, or **Monthly Range,** 41

Mean of all the Highest, ... 44.7

Mean of all the Lowest, ... 27.8

Difference, or **Mean Daily Range,** 16.9

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 36.3

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, ... 34.5

Wet Bulb, Mean of A.M. and P.M. Readings, ... 32.9

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

Do. **Elastic Force of Vapour,** ..... ·168

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

RAIN fell on 15 **Days; Amount in Inches,** 2.00

WIND. SUMMARY. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	0	2	1	1	0	8	7	9	0	2.8
P.M.										
Sum.	0	4	2	2	0	16	14	18	0	2.8

* 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, ...	5
Hail, ...	0
Thunder, ...	0
Clear Sky, ...	4
Overcast, ...	16
Fog, ...	0
Ground Frost, ...	21
Gale, ...	5
	8

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*) John M Troup

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 March 1911.

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)	9 A.M. Attached Thermometer (°)	9 P.M. Barometer. (inches)	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.	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.	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	28.450	36			46	28	108	26	35	33			·18	W	4					8							Bc	BcR	Clear & fair Evg R	1
2	28.750	41			54	37	112	34	36	34			—	NW	8					7							Bc	Bc	ɣ Clear & fair ɣ	2
3	28.900	46			51	40	108	36	48	45			·04	WNW	8					9							O	BcP	ɣ Mg dull Clear after Afternoon P.	3
4	28.850	38		? ×	44	32	110	29	37	44			—	W	1					8							O	Bc	Mg dull Afternoon Clear	4
5	29.000	35			46	28	112	24	36	34			—	W	1					7							Bc	Bc	Clear & fair	5
6	28.750	40			46	36	90	34	38	37			·08	NW	2					10							O	BcP	Mg dull Midday Clear Afternoon P.	6
7	29.150	32			44	24	112	21	34	31			—	W	1					0							B	Bc	Bright Sunshine	7
8	28.800	37			46	31	110	28	37	35			—	W	3					6							Bc	Bc	Clear & fair So. ha.	8
9	28.650	38			47	30	112	27	39	37			—	SSW	8					10							O	Bc	ɣ Mg dull Clear after	9
10	28.500	38			48	29	100	25	38	36			—	W	1					6							Bc	PBc	Mg Clear 9am to 4.30 Pm	10
11	28.600	35			48	28	110	23	38	35			·05	SW	2					4							B	Bc	Clear & fair * at night	11
12	28.400	35			42	30	94	24	36	34			·18	NNW	3					8							Bc	S	⊠ Mg Clear Afternoon *	12
13	28.550	36			40	31	100	27	36	33			·11	NW	8					10							OS	OS	⊠ ɣ Fr * Stormy	13
14	28.700	34			41	32	80	28	38	36			·22	N	6					8							OS	OS	⊠ ɣ Fr * Stormy	14
15	28.600	36			43	30	100	27	37	34			·26	NW	1					8							OS	OS	⊠ * Throughout	15
16	28.700	33			42	33	94	31	36	34			·28	NE	1					10							OS	OS	⊠ Dull & * throughout	16
17	28.900	38			41	32	84	30	38	37			·25	E	4					10							OS	OS	⊠ * Fr ɣ Stormy	17
18	29.100	36			40	32	81	29	37	35			·18	E	2					10							OS	OS	⊠ Dull & * throughout	18
19	29.000	34			38	29	81	26	36	34			·03	E	1					10							OS	S	⊠ Dull & * showers	19
20	28.950	34			39	32	82	28	36	35			—	NE	1					10							O	O	⊠ Dull but fair	20
21	28.950	32			40	22	80	18	34	31			—	S	1					0							B	Bc	⊠ Clear & fair Evg Frosty	21
22	28.950	35			43	28	88	24	38	34			—	E	1					10							O	Bc	⊠ Mg dull Clear after	22
23	29.200	35			41	33	100	31	36	34			—	SE	1					10							O	Bc	⊠° Mg dull Clear after	23
24	29.100	36			44	27	108	23	37	36			—	N	2					4							Bc	BcP	Clear & fair	24
25	29.300	35			44	31	100	29	38	36			—	NE	2					8							Bc	Bc	Clear & fair	25
26	29.300	39			42	34	90	31	37	34			·09	NE	4					10							O	P	Mg dull Afternoon P	26
27	29.200	39			46	35	91	32	38	36			·06	NW	2					10							O	P	Mg dull Afternoon P	27
28	28.900	38			44	34	83	32	39	37			—	NE	2					10							OP	O	Mg dull & P Afternoon Clear	28
29	28.950	33			42	22	86	19	36	34			·02	NW	2					10							O	BcP	Mg dull Clear after Evg P	29
30	28.800	38			50	30	103	27	38	36			·04	NW	1					10							O	PBc	Mg dull & P Clear after	30
31	28.900	38			48	31	96	27	40	38			—	SE	1					10							O	Bc	Mg dull Clear after	31
Sums.					12 1430	11 927	×	×	20 1227	14 1169			2.07		85					251										
Means.					44.2	30.7			37.3	35.5					2.7					8.1										
Instrumental Errors.					—	—			—	—																				
Corrected Means.																														

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.........—..........

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

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

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

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

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

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

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

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 2 th, ... 54

Lowest in Month, on 21 th, 29 22

Difference, or **Monthly Range,** 32

Mean of all the Highest, ... 44.2

Mean of all the Lowest, ... 30.7

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

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, ... 37.3

Wet Bulb, Mean of A.M. and P.M. Readings, ... 35.5

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

Do. **Elastic Force of Vapour,** .... ·188

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

RAIN fell on 16 Days; **Amount in Inches,** 2.07

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0–12.
A.M.	3	5	4	2	2	1	7	7	0	
P.M.										
Sum.	6	10	8	4	4	2	14	14	0	2.7

* 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*.

6.8

WEATHER SUMMARY.

Number of Days of Precipitation, ... 16

Snow, ... 8

Hail, ... 0

Thunder, ... 0

Clear Sky, ... 2

Overcast, ... 17

Fog, ... 0

Ground Frost, ... ~~23~~

Gale, ... ~~4~~ 8

INSTRUMENTS IN USE.

Barometer, No. 1738

Dry Bulb, No. 518

Wet Bulb, No. 518

Maximum, No. 67067

Minimum, No. 66839

Solar Radiation, No. 10677

Grass Min., No. 854

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John McTroup, Balmoral

(Signed) J.McTroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

EDINBURGH
7 30AM
6 AP 11
14

SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of April 1911.

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 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.	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.	9 A.M. 12 ins.	9 A.M. 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	28·950	38			51	31	108	30	38	37			—	W	1					10							0	Bc	Mg dull Afternoon Clear.	1
2	28·850	37			53	26	120	23	39	37			·07	SW	1					6							Bc	BcS	Clear & fair Evg Sn Showers	2
3	29·150	33			43	25	110	22	33	31			·08	N	6					6							Bc	S	☒° & Mg Clear * after	3
4	29·250	35			45	28	114	26	36	34			·02	NE	2					8							0B	BcS	☒° Mg dull & Showery Clear after * at night.	4
5	29·300	34			48	29	101	26	35	34			—	NW	1					4							B	Bc	☒ Clear & fair Evg Frosty.	5
6	29·400	34			46	21	100	17	36	34			—	N	1					10							0	Bc	Mg dull Clear & fair after.	6
7	29·300	40			47	36	104	34	38	37			—	SW	1					10							0	Bc	Mg dull Clear after.	7
8	29·400	40			46	38	97	35	41	40			·02	NW	1					10							0	0	Dull but fair.	8
9	29·350	43			50	38	100	36	43	41			·05	W	2					8							B	P	Mg Bright Sunshine Afternoon P (2 50 P.M.)	9
10	29·240	37			56	38	98	30	40	38			—	NE	6					10							0	Bc	Mg dull Clear after	10
11	29·250	37			58	32	132	29	42	38			—	W	1					2							B	B	Bright Sunshine	11
12	29·100	45			52	36	90	33	44	43			·02	W	1					10							0	0P	Mg dull Afternoon P	12
13	29·150	46			58	38	130	35	44	41			—	W	1					4							Bc	Bc	Bright Sunshine	13
14	29·050	45			56	41	130	38	44	43			—	NNW	8					4							Bc	Bc	clear & fair	14
15	28·750	45			51	40	98	37	47	46			·11	NW	8					4							Bc	R	Mg clear Afternoon R	15
16	28·550	39			45	31	96	29	41	39			·08	NNW	10					6							Bc	BcS	☒° clear & fair Evg Sn Showers	16
17	28·700	37			49	28	91	23	36	34			·04	W	1					10							0	0B	Dull & P throughout	17
18	28·400	45			49	35	86	33	46	44			·48	NE	2					10							0	0R	Dull & Showery Evg R² t & l 6 to 9 P.M.	18
19	28·250	42			50	35	90	32	44	40			·56	SE	8					6							0	R	Mg dull Afternoon R	19
20	28·456	46			50	35	92	33	46	44			·08	SE	2					8							0	B	8.45 a.m. Dull & Showery.	20
21	28·800	43			56	38	112	35	44	41			·01	ESE	1					10							0	Bc	Mg dull Clear after.	21
22	28·820	50			58	47	122	44	50	48			·02	W	2					7							Bc	P	Mg dull Afternoon P	22
23	28·650	52			50	40	106	37	48	47			·11	W	1					10							0	P	Mg dull Afternoon Showery	23
24	28·600	51			54	41	102	38	49	48			·30	SW	1					10							0	0P	Dull but fair Evg R 5 to 6 p.m.	24
25	28·550	51			51	40	91	37	47	46			·15	W	1					8							0P	0	Mg P Midday Clear Dull after	25
26	28·500	44			50	43	113	40	46	44			·09	W	1					10							0P	P	Dull & Showery	26
27	28·300	45			38	30	114	26	48	46			—	SW	1					6							Bc	Bc	Clear & fair	27
28	28·300	45			56	28	108	25	51	50			·06	W	1					0							B	P	Mg Bright Sunshine Afternoon P	28
29	28·150	41			48	29	98	27	43	42			·07	SW	1					10							0	0P	Dull but fair Evg P	29
30	28·550	43			45	36	80	33	43	41			—	WNW	1					10							0	Bc	Mg dull Clear after	30
31																														31
Sums.	880 25·066	12 63			13 24	13 128			14 82	12 28			9 2·42		75					8 227										
Means.	28·836	42·1			50·8	34·3			42·7	40·9					2·5					7·6										
Instrumental Errors.	?				–	–			–	–·5 ? 40·4																				
Corrected Means.																														

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. — 3.6 ..... ·800

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

Mean at Station, corrected, and at 32°, ... 28·800

Correction for height, feet above Mean Sea Level, ... + 1·019

Mean, reduced to 32°, and Sea Level, ... 29·819

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

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

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

0·1 in. too low

Observations made and Return verified by John McGroup

(*Signed*) J McGroup

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 11 th, 13, 22, 27 58

Lowest in Month, on 6 th, ... 21

Difference, or **Monthly Range,** 37

Mean of all the Highest, ... 50·8

Mean of all the Lowest, ... 34·3

Difference, or **Mean Daily Range,** ..... 16·5

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 42·6

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, ... 42·7

Wet Bulb, Mean of A.M. and P.M. Readings, ... 40·4

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

Do. **Elastic Force of Vapour,** ..... ·226

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

RAIN fell on 20 **Days; Amount in Inches,** 2·42

WIND. SUMMARY. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	3	3	1	2	0	5	11	5	0	
P.M.										
Sum.	6	6	2	4	0	10	22	10	0	25

* 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, ...	4
Hail, ...	0
Thunder, ...	1
Clear Sky, ...	1
Overcast, ...	14
Fog, ...	0
Ground Frost, ...	13
Gale, ...	6

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. .....

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

EDINBURGH 2 15 PM 8 MY 11 25

SCOTTISH METEOROLOGICAL SOCIETY.

OBSERVATIONS taken at Balmoral, County of Aberdeenshire, During the MONTH of May 1911.

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 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 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	28·750	42			50	30	94	25	44	42			·03	S	2					8							Bc	Bc	Clear & fair	1
2	29·450	45			48	42	80	40	44	41			·08	SE	1					10							O	OP	Mg dull Afternoon P	2
3	28·350	40			46	31	104	27	40	38			·92	NE	3					10							R	Bc	Mg R afternoon clear	3
4	28·550	45			48	36	120	30	45	40			—	W	4					8							Bc	B	Bright Sunshine	4
5	28·800	42			56	30	124	26	42	41			—	W	2					6							Bc	B	Bright Sunshine	5
6	29·100	44			61	31	126	29	44	42			—	W	1					0							B	B	Bright Sunshine	6
7	29·600	52			58	46	126	43	54	52			—	SW	1					9							O	B	Mg dull clear after	7
8	29·100	53			60	41	125	38	49	47			—	SW	1					0							B	B	Bright Sunshine	8
9	29·200	50			62	39	128	35	50	49			—	W	1					10							O	B	Mg dull clear after	9
10	29·150	52			64	38	125	35	52	51			—	W	1					0							B	B	Bright Sunshine	10
11	29·000	50			68	38	138	36	60	58			—	S	1					6							B	B	Bright Sunshine	11
12	29·000	53			68	37	133	34	58	55			·18	W	1					0							B	Bc	Bright Sunshine Evg R	12
13	28·800	51			58	41	98	38	53	51			·23	NE	2					10							R	O	Mg R Afternoon Dull	13
14	28·750	53			54	46	94	42	53	52			·30	SE	1					10							P	O	Mg P Afternoon Dull t & t [illegible]	14
15	28·550	52			54	48	115	45	52	50			·10	NE	1					10							R	R	Dull & r throughout	15
16	28·700	55			58	34	120	31	55	54			—	W	1					10							O	Bc	Mg dull clear after	16
17	28·950	53			57	38	112	35	54	52			—	W	1					9							Bc	Bc	Bright Sunshine	17
18	29·000	50			58	43	112	44	50	48			—	E	1					6							Bc	B	Bright Sunshine	18
19	29·200	50			61	48	116	45	53	51			—	W	4					10							O	Bc	Mg dull clear after	19
20	29·350	48			64	38	127	35	50	48			—	NW	1					0							B	B	Bright Sunshine	20
21	29·050	49			68	29	133	26	58	56			—	W	1					0							B	B	Bright Sunshine	21
22	28·900	52			69	37	132	34	53	52			—	NW	1					0							B	B	Bright Sunshine ✓	22
23	28·600	55			70	48	137	44	54	52			—	WSW	1					8							Bc	B	Bright Sunshine ✓	23
24	28·700	54			68	46	136	42	56	54			—	W	8					0							B	Bc	✓ Clear & fair	24
25	28·700	58			68	51	134	48	59	56			—	SW	7					10							O	B	Mg dull Bright Sunshine after	25
26	28·950	54			67	40	126	35	58	55			—	W	1					0							B	B	Bright Sunshine	26
27	29·050	58			68	50	128	46	60	58			—	SSE	1					10							O	B	Mg dull clear after	27
28	29·300	59			70	49	133	46	61	60			—	W	1					10							O	B	Mg dull Bright Sunshine after	28
29	29·300	60			82	35	146	32	66	64			—	SW	2					0							B	B	Bright Sunshine	29
30	29·250	57			76	38	144	35	66	63			—	W	4					0							B	B	Bright Sunshine Evg O	30
31	29·100	56			73	39	140	36	64	62			—	SW	1					8							B	B	Bright Sunshine	31
Sums.	127 / 29·65 ✓	51 / 42			16 / 73	15 / 307			11 / 108	17 / 54		✓	2 / 1·84 ✓		59					6 / 170 ✓										
Means.	28·956	51·4			62·4 ✓	39·9 ✓			53·5 ✓	51·7 ✓					1·9 ✓					5·5 ✓										
Instrumental Errors.										-1·0 ?																				
Corrected Means.																														

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. — 59 ..... ·877

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

Mean at Station, corrected, and at 32°, ... 28·877

Correction for height, feet above Mean Sea Level, ... + 1·000

Mean, reduced to 32°, and Sea Level, ... 29·877 ✓

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

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

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

Mg 0·100 too low

Observations made and Return verified by John M Troup

(*Signed*) J M Troup

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 30 th, ... 83·–

Lowest in Month, on 21 th, ... 29·–

Difference, or **Monthly Range,** ..... 54·–

Mean of all the Highest, ... 62·4 ✓

Mean of all the Lowest, ... 39·9 ✓

Difference, or **Mean Daily Range,** ..... 22·5 ✓

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 51·2 ✓

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, ... 53·5 ✓

Wet Bulb, Mean of A.M. and P.M. Readings, ... 2·8 50·7 ✓

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

Do. **Elastic Force of Vapour,** ..... ·334

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

RAIN fell on 7 **Days; Amount in Inches,** 1·84

WIND.	SUMMARY.									
Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	0	3	1	2	3	5	15	2	0	
P.M.										
Sum.	0	6	2	4	6	10	30	4 ✓	0	19

* 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, ...	7
Snow, ...	0
Hail, ...	0
Thunder, ...	1
Clear Sky, ...	12
Overcast, ...	13
Fog, ...	0
Ground Frost, ...	6
Gale, ...	3/4

INSTRUMENTS IN USE.

Barometer, No.	17558
Dry Bulb, No.	518
Wet Bulb, No.	518
Maximum, No.	67064
Minimum, No.	66939
Solar Radiation, No.	10477
Grass Min., No.	854
Sun Recorder, No.	
1-foot Therm., No.	
4-foot Therm., No.	

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 June 1911.

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 (°)	Barometer 9 P.M. Barometer (inches)	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)
1	29·850	64			78	52	136	50	64	63			—
2	29·200	58			78	48	138	45	63	61			—
3	29·200	57			74	36	132	33	64	60			—
4	29·250	59			76	36	138	34	58	56			—
5	29·380	61			78	41	139	39	59	58			—
6	29·450	57			79	36	142	34	61	60			—
7	29·400	58			78	38	143	37	63	61			—
8	29·250	63			66	49	128	47	64	63			·05
9	29·100	55			58	46	108	42	54	52			—
10	29·000	51			57	37	106	33	52	50			—
11	28·950	51			54	41	104	38	50	48			—
12	28·900	48			51	31	104	28	43	42			·04
13	28·950	49			52	37	118	34	46	43	3 Pm		·03
14	29·052	48			54	34	110	30	46·6	45·3	47·5	43·7	—
15	29·140	45			60	29	124	26	50	46·4	53·8	46·6	—
16	29·050	49			65	28	140	26	58	53·7	57	51·2	·03
17	28·730	52			58	33	94	29	47·8	45·2	62·2	53·8	·10
18	28·450	55			59	51	126	48	55·1	48·6	50·6	49	·15
19	28·560	56			62	44	126	41	61	54·5	57	54·1	—
20	28·600	57			63	43	120	40	56	53·8	58	53·6	—
21	28·862	55			60	46	90	43	56	54·4	56	50·2	·15
22	28·400	58			64	52	124	47	57·3	54·2	57·3	53	·03
23	28·600	55			60	44	104	41	56·2	53·6	62·2	53·4	—
24	28·762	54			58	41	96	39	55	52·4	58·1	52·4	·47
25	28·450	52			56	43	90	40	53	50·2	52	49·5	·15
26	28·660	48			55	42	103	40	46	44	47·3	44·5	·06
27	28·950	48			61	44	100	39	53·5	48	56	51·3	—
28	28·850	55			59	51	110	49	55·1	53	56·1	50·3	—
29	28·800	54			62	50	123	47	55·2	52·8	57	53·2	—
30	28·500	52			63	49	120	45	57·5	49	56·3	51·4	—
31													
Sums.	149 27536	16 124			14 98	13 52			83 1543	115 758			1·26
Means.	28·918	54·1			63·3	41·7			55·1	52·5			
Instrumental Errors.	+0·100								−·4	−·5	−·4	−·5	
Corrected Means.	29·018												

Date.	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	W	1					6							Bc	B	Bright Sunshine	1
2	SE	1					0							B	B	Bright Sunshine	2
3	SW	1					0							B	B	Bright Sunshine	3
4	S	4					0							B	O	Mg Bright Afternoon Dull	4
5	SW	1					0							B	B	Bright Sunshine	5
6	W	1					2							B	B	Bright Sunshine	6
7	SW	1					0							B	B	Bright Sunshine	7
8	NW	2					0							B	Bcp	Clear & fair Evg P	8
9	NNW	6					10							O	Bc	Mg dull Clear after	9
10	W	1					10							O	Bc	Mg O Afternoon Clear	10
11	SW	1					10							O	O	Dull but fair	11
12	NW	6					10							O	Op	Dull but fair Evg P	12
13	NW	6					10	Fresh snow on Lochnagar.						O	P	7·35 Pm Dull & Showery 5·25 Pm	13
14	NW	4					10	Aw						Bc	Bc	Clear & fair Evg Frosty	14
15	W	3					6							Bc	Bc	Clear & fair	15
16	SSW	1					3							Bc	Bc	Clear & fair P at night	16
17	ESE	6					10							O	P	Dull & P throughout	17
18	SW	1					10							O	R	Mg dull t & l 1 to 4 Pm afternoon R	18
19	W	3					6							Bc	Bc	Bright Sunshine t & l 5 to 7 Pm	19
20	SW	4					6							Bc	Bc	Clear & fair	20
21	W	1					10							O	BR	Mg dull Clear after Evg R	21
22	SE	6					10							P	Bc	Mg P Afternoon Clear	22
23	W	2					10							O	Bc	Mg dull Clear after	23
24	NE	3					10							O	P	Mg dull afternoon P Evg R	24
25	NNW	6					10							P	P	Dull & Showery 5 Pm to 7 Pm	25
26	WNW	8					10							OP	O	Dull & Showery.	26
27	W	1					0							B	Bc	Clear & fair	27
28	SW	1					10							O	Bc	Clear & fair	28
29	W	1					8							Bc	Bc	Clear & fair	29
30	SW	1					10							O	Bcp	Mg dull Clear after with P.	30
31																	31
Sums.		84					3 197										
Means.		2·8					6·6										

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. — 0·66 ... 28·952

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

Mean at Station, corrected, and at 32°, ... 28·952

Correction for height, feet above Mean Sea Level, ... + 1·000

Mean, reduced to 32°, and Sea Level, ... 29·952

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

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

Difference, or Monthly Range, ...

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 6 th, ... 79

Lowest in Month, on 16 th, ... 28

Difference, or Monthly Range, ... 51

Mean of all the Highest, ... 63·3

Mean of all the Lowest, ... 41·7

Difference, or Mean Daily Range, ... 21·6

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 52·5

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, ... 54·7

Wet Bulb, Mean of A.M. and P.M. Readings, ... 52·0

Computed Temperature of Dew-Point, ...

Do. Elastic Force of Vapour, ... ·352

Do. Relative Humidity (Saturation = 100), ... 82%

RAIN fell on 11 Days; Amount in Inches, 1·26

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	1	1	1	2	2	8	10	5		
P.M.										
Sum.	2	2	2	4	4	16	20	10	0	2·8

* 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, ... 11
Snow, ... 0
Hail, ... 0
Thunder, ... 2
Clear Sky, ... 7
Overcast, ... 16
Fog, ... 0
Ground Frost, ... 2
Gale, ... 8 20

INSTRUMENTS IN USE.

Barometer, No. 1758
Dry Bulb, No. 518
Wet Bulb, No. 518
Maximum, No. 67064
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

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* 1911.

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 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 (°)	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	28·524	53			56	45	120	43	53	50·2	56	52·4	·33	W	1					6							Bc	PR	Mg dull Midday H & P Showers Evg R	1
2	28·760	50		?	52	40	110	38	51	49·5	54	50·3	·09	SW	1					10							O	BcP	Mg dull clear after Evg P	2
3	29·100	49			58	36	128	32	52	49·6	56·3	51·5	·03	W	3					3							Bc	Bc	Clear & fair Evg P	3
4	29·100	52			73	50	136	48	56	54·5	58·3	51·6	—	SW	1					8							O	Bc	Mg dull clear after.	4
5	29·200	51			71	56	133	52	66	62	60	54·6	—	WNW	6					6							Bc	Bc	f Clear & fair Evg D	5
6	29·000	53			65	57	112	55	62	58·5	57	54·2	·02	W	6					10							O	Bc	Mg dull & P Clear after.	6
7	29·150	57			65	50	123	47	55	51	59·3	53·7	—	ESE	1					10							O	Bc	Mg dull Clear after	7
8	29·200	60			68	53	128	51	55·5	52·3	58·2	51·6	—	NNW	3					8							Bc	Bc	Clear & fair.	8
9	29·450	58			73	49	138	45	58·3	54·5	66	60·3	—	W	1					0							B	B	Bright Sunshine	9
10	29·530	55			84	37	149	35	64	61	72·5	58·4	—	SW	1					0							B	B	Bright Sunshine	10
11	29·550	60			82	44	143	40	68	62·8	71·6	62·4	—	W	1					0							B	B.	Bright Sunshine.	11
12	29·550	62			84	45	146	43	73	64·5	73	58·6	—	SW	1					0							B	B	Bright Sunshine	12
13	29·452	61			88	44	152	41	69·6	61·8	75·4	62·3	—	W	1					0							B	B	Bright Sunshine.	13
14	29·356	64			75	46	140	43	60	56·2	71	64·5	—	SW	1					0							B	Bc	Clear & fair Evg O	14
15	29·350	57			68	48	108	45	56·5	52·4	60	58	·03	NNW	1					8							O	Bc	Mg dull Clear after Evg P	15
16	28·900	49			60	52	102	50	53	51·4	58	54	·35	NW	4					10							O	B	Mg dull afternoon P Evg R	16
17	28·678	54			62	45	103	41	50	47	56	52·8	·05	SE	1					10							M.P.	Bc	Mg M & P Clear after	17
18	28·506	56			63	44	110	41	54·5	51	58	54	—	W	3					8							Bc	Bc	Clear & fair	18
19	28·750	52			66	37	118	33	56·5	53	63·2	56·4	—	W	1					10							Bc	Bc	Clear & fair	19
20	29·000	54			67	32	113	30	57	54	66	57·4	·10	SW	1					0							Bc	P	Mg clear Afternoon P	20
21	28·950	52			68	56	106	54	67	64·5	68·4	61	—	SSW	4					5							Bc	Bc	Clear & fair	21
22	28·900	56			72	47	121	45	60·6	58	69	61	—	W	1					10							O	Bc	Mg dull Clear after	22
23	29·100	54			64	34	124	34	51	50	61	53	—	W	3					8							Bc	Bc	Clear & fair	23
24	28·950	45			63	51	104	47	57·4	54·2	63·4	56·5	—	W	1					6							Bc	Bc	Clear & fair	24
25	28·750	58			64	49	108	46	56	53	59	56	—	SW	1					10							P	Bc	Mg P Clear after 5.38 P m	25
26	28·800	53			64	50	110	47	58	56	58·4	52	·06	W	1					10							DP	Bc	Mg dull & P Clear after.	26
27	28·750	50		?	67	51	104	48	56·6	53	68	60	·13	SW	2					10							O	P	Mg dull clear after Evg P	27
28	28·900	64			70	53	116	49	56	53	69·4	58·2	—	W	1					10							O	Bc	Mg dull clear after.	28
29	29·200	60			73	52	118	48	58	54	68·2	61·5	·04	SW	2					8							Bc	Bc H	Clear & fair Evg Hazy	29
30	28·800	58			76	54	123	51	61	58·4	74	63·4	—	SSE	6					8							Bc	Bc	f Clear & fair Evg O	30
31	28·950	64			78	56	120	52	65	63·8	71	64·8	—	WNW	4					0							B	Bc	Clear & fair	31
Sums.	168 / 1·156	11 / 167			13 / 274	13 / 228			14 / 1816·0	17 / 1648	19 / 1196	17 / 2164	4 / 1·23		65					8 / 192										
Means.	29·037	55·4			69·0	47·4			58·6	55·3	63·9	57·0			2·1					6·2										
Instrumental Errors.	+·100								−·4 / 58·2	−·5 / 54·8	−·4 / 63·5	−·5 / 56·5																		
Corrected Means.	·137								3·4 / ·385 / 79%		7·0 / ·369 / 63%																			

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. 70	·067
Corrected Mean at 9 P.M., *minus* Correction for Temp.	—
Mean at Station, corrected, and at 32°,	·067
Correction for height, feet above Mean Sea Level,	+ ·990
Mean, reduced to 32°, and Sea Level,	30·057
Highest Reading, corrected for Index error, on th,	
Lowest Do. Do., on th,	
Difference, or **Monthly Range,**	

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 13th,	88
Lowest in Month, on 20th,	32
Difference, or **Monthly Range,**	56
Mean of all the Highest,	69·0
Mean of all the Lowest,	47·4
Difference, or **Mean Daily Range,**	21·6
Mean Temperature of Month, ½ (Mean Max.+Mean Min.),	58·2
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,	58·2 ~~60·7~~
Wet Bulb, Mean of A.M. and P.M. Readings,	54·8 ~~53·7~~
Computed **Temperature of Dew-Point,**	~~3~~
Do. **Elastic Force of Vapour,**	·385
Do. **Relative Humidity** (Saturation = 100),	79%
RAIN fell on 11 **Days; Amount in Inches,**	1·23

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	1		1	1	2	9	14	3		
P.M.										
Sum.	2	0	2	2	4	18	28	6	0	2·1

* 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,	11
Snow,	0
Hail,	0
Thunder,	0
Clear Sky,	8
Overcast,	11
Fog,	0
Ground Frost,	1
Gale,	2

INSTRUMENTS IN USE. 12

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 M. Troup

(Signed) J M Troup

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 1911.

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	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	28.950	62			76	54	118	51	66	63	68.6	59.8	·12	SW	1					6							Bc	P	Mg Clear. Afternoon P t 4 to 5 Pm	1
2	29.000	61			81	49	137	46	64.5	62	67	60.6	·06	W	2					8							Bc	P	Clear & fair Evg O P	2
3	28.850	65			74	52	112	50	63	61.4	69	62.4	—	SSE	3					10							Bc	Bc	Clear & fair t 3 to 3 30 Pm	3
4	28.832	66			70	43	117	40	61	59	71.6	59.8	—	W	1					4							Bc	Bc	Clear & fair Evg O	4
5	28.650	57			73	50	118	46	57	53	72.4	63	—	ESE	6					10							O	Bc	Mg dull Clear after	5
6	28.600	56			69	43	120	40	54.6	50	66	61.4	·03	S	4					6							Bc	Bc P	Clear & fair Evg O P	6
7	28.850	59			69	44	142	39	58.3	54	64	57	—	W	1					10							O	Bc	Mg dull Clear after.	7
8	29.030	63			78	61	148	56	56	51.4	76	71.4	—	W	1					8							Bc	B	Bright Sunshine	8
9	29.000	68			82	53	146	50	70.3	64	78	70.2	—	SW	1					0							B	B	Bright Sunshine t 9.30 to 11 Pm	9
10	29.150	62			86	51	148	47	66.4	61	79	73	—	W	1					0							B	B	Bright Sunshine	10
11	29.300	57			82	49	143	46	72	68	76	68.4	—	SW	1					0							B	B	Bright Sunshine	11
12	29.250	60			69	51	112	47	56	54.3	63	58	—	SSW	1					10							M	B	Mg dull & hazy Afternoon Bright.	12
13	29.300	59			80	53	140	50	55	53	66	61.2	—	W	1					10							M.	B	Mg hazy Afternoon Bright.	13
14	29.300	62			76	55	138	52	57	54	68	64	—	SW	1					10							h	B	Mg hazy Clear after.	14
15	29.200	57			65	43	135	40	56.3	52.8	64	56	—	W	1					4							Bc	B	Bright Sunshine	15
16	29.150	56			69	44	136	39	57	51	68	59	—	SW	1					8							Bc	Bc	Clear & fair	16
17	29.050	51			68	37	136	34	53	50	66	61	—	W	1					4							B	Bc	Clear & fair	17
18	29.100	52			66	40	132	37	53	50.5	68.6	62.6	—	SW	1					8							Bc	Bc	Clear & fair	18
19	29.000	57			62	43	128	39	58.4	53	64.3	4.2	·03	W	4					10							O	O	Dull & hazy P	19
20	28.800	56			60	50	104	46	54	52	61	58	—	SW	1					10							O	Bc	Mg dull Clear after	20
21	28.850	53			64	47	100	44	57	53	64.3	59	—	SSW	1					10							Bc	Bc	Clear & fair	21
22	28.800	55			63	47	110	45	53	48	63	61	·08	W	1					10							O	Bc P	Mg dull Clear after Evg P	22
23	28.900	54			62	47	108	45	52	50	61	59	—	SW	1					10							Bc	Bc	Clear & fair	23
24	28.700	49			64	35	112	32	52	49	63.7	59	·12	NW	1					10							O	P	Dull & Showery	24
25	28.500	57			67	50	100	47	62	60	64.3	60.2	—	S	3					8							Bc	Bc	Clear & fair Evg O	25
26	28.700	58			65	51	110	46	66.3	59	65.3	61	—	SW	1					10							O	Bc	Mg dull Clear after	26
27	28.750	53			69	40	108	35	56	53	66.3	61	—	W	3					5							Bc	Bc	Clear & fair	27
28	28.684	54			68	47	135	43	56	54	64	60	·46	SSW	3					8							Bc	Bc O	Clear & fair Evg O t & l 5 50 to 9 Pm	28
29	28.624	57			65	45	135	42	55	50	63	59.3	—	W	6					10							O	Bc	Clear & fair.	29
30	29.050	47			66	37	133	34	47	45	63.5	59	—	SW	2					5							Bc	Bc	Clear & fair	30
31	28.800	55			64	39	124	36	56	52	62	60	·02	SW	4					6							Bc	Bc	Clear & fair P	31
Sums.	147 28.740	15 228			15 12	12 210			143 2451	102 404	156 2169	135 465	3 ·92		60					8 228										
Means.	28.927	57.4			70.4	46.8			57.9	54.5	67.0	61.5			1.9					7.4										
Instrumental Errors.	+.100				-1.0 69.4					-.4 58		-.5 60																		
Corrected Means.	29.027								·371 77	56.1	·453 68	61.0																		

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. — 77

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

Mean at Station, corrected, and at 32°, 28·950

Correction for height, feet above Mean Sea Level, + ·995

Mean, reduced to 32°, and Sea Level, 29·945

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, 86

Lowest in Month, on 24 th, 35

Difference, or **Monthly Range,** 51

Mean of all the Highest, 69.4

Mean of all the Lowest, 46.8

Difference, or **Mean Daily Range,** 22.6

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), 58.1

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, 57.9 ~~62.5~~

Wet Bulb, Mean of A.M. and P.M. Readings, 54.1 ~~57.6~~

Computed **Temperature of Dew-Point,**

Do. **Elastic Force of Vapour,** ·371

Do. **Relative Humidity** (Saturation = 100), 77

RAIN fell on 8 **Days; Amount in Inches,** 0·92

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

* 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, 8

Snow, 0

Hail, 0

Thunder, 4

Clear Sky, 3

Overcast, 14

Fog, 0

Ground Frost, —

Gale, —

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 McGregor

(Signed) J. McGregor

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 1911.

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 (°)	Barometer 9 P.M. (inches.)	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. (°)	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.	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	55	62		62	53	129	30	56	54	60	53.4	–	NW	1					10							0	Bc	Clear & fair	1
2	28.895	59	73		66	51	120	50	61	54	59.6	52	–	W	2					4							Bc	Bc	Clear & fair	2
3	29.050	54	67		61	47	126	43	53	49	59	56	–	W	1					7							Bc	Bc	Clear & fair Evg Frosty	3
4	29.164	44	65		63	32	120	38	35	34	63.2	58	–	SW	4					5							Bc	B	Bright Sunshine	4
5	28.950	56	71		66	41	128	38	57	56	66.5	60	–	NNW	6					6							Bc	B	✓ 9.30 a Bright Sunshine	5
6	29.050	57	76		77	55	135	50	54	53	68.6	62	–	NW	4					6							Bc	Bc	Clear & fair	6
7	29.000	56	76		70	52	136	47	53	54.4	68.4	63	–	W	1					0							B	B	Bright Sunshine	7
8	28.950	58	65		60	50	110	45	55	54	60	55	·15	W	4					7							Bc	P	Dry clear Pafter	8
9	29.050	50	59		60	37	140	34	40.5	38	56.6	49	–	NW	1					6							Bc	Bc	Clear & fair	9
10	29.100	48	63		67	35	138	32	45	43.5	64.2	55	–	W	2					7							Bc	Bc	Clear & fair	10
11	28.900	58	69		67	38	128	34	67	64	60	55	–	NW	1					10							0	Bc	Dry dull Clear after	11
12	29.000	55	60		66	48	128	45	50	49	59.4	56	–	W	1					10							0	Bc	Dry dull clear after	12
13	28.850	56	60		68	32	108	29	35	34	66.5	60.3	–	W	1					6							Bc	Bc	hp Clear & fair	13
14	29.050	49	56		58	39	120	35	26	42	58.6	52.6	·01	NW	2					10							0	Bc	Dry dull clear after	14
15	29.200	46	54		56	40	120	37	43	40	58.3	54	? –	NNW	6					8							Bc	Bc	Clear & fair	15
16	29.300	47	59		57	40	120	38	42.5	40	55.4	53	–	NNW	1					6							Bc	B	Bright Sunshine	16
17	29.150	44	57		60	29	123	24	35	33	58.6	52	–	W	1					4							Bc	Bc	Clear & fair	17
18	29.050	56	70		65	49	110	45	38	35	62.6	59	–	W	1					8							Bc	Bc	Clear & Fair	18
19	28.750	55	65		65	50	135	48	54	51.5	60.3	58.5	·01	W	4					8							0	Bc	Dry dull Clear after Evg Frosty	19
20	28.250	55	63		60	52	132	50	52	51	57	56	·02	SW	1					0							B	Bc	Dry P Clear & fair after	20
21	28.200	38	59		60	25	135	22	32	30	59.5	57	–	W	1					0							B	Bc	hp Clear & fair	21
22	28.650	40	57		59	26	128	24	33	32	58.4	56	–	W	1					0							B	Bc	hp Clear & fair	22
23	28.550	48	56		60	41	105	38	50	48	60	58	–	SSE	6					10							0	0	Dull but fair	23
24	28.620	48	66		60	39	125	36	43	41	58.4	56	–	WNW	2					6							Bc	Bc	Clear & fair Evg Frosty	24
25	28.900	43	62		59	28	122	24	34	31	55.3	57.1	–	W	1					0							B	Bc	hp Clear & fair Evg 0	25
26	28.700	50	62		61	40	125	37	47	44	58.6	56	–	W	6					0							B	Bc	Clear & fair ✓	26
27	28.750	51	60	?	56	43	133	40	50	48	55	52.4	·01	NW	8					4							Bc	Bc	✓ Clear & fair ✓	27
28	28.800	45	57		56	33	118	29	40	38	52.6	48	–	WNW	6					3							Bc	Bc	hp Clear & fair 3.20 pm	28
29	28.950	43	53		50	38	120	35	42	40	50	46.1	·01	W	1					9							Bc	Bc	4.30 am Clear & fair	29
30	28.800	41	51		59	34	112	29	39	37	48	46	·11	NW	3					10							Bc	P	7.45 am Dull & P throughout ✓	30
31																														31
Sums.	26.529 (149) ✓	05 (15)	78 (12)		46 (11) ✓	17 (12) ✓		(11)	201.8 (11) ✓	135.4 (11) ✓	568.4 (169) ✓	441.2 (153) ✓	0.42 ✓		80					170 (11) ✓										
Means.	28.884 ✓	50.2	62.6		61.5 ✓	40.6 ✓			46.7 ✓	44.5 ✓	58.9 ✓	54.7 ✓			2.7					5.7 ✓										
Instrumental Errors.	+0.100								-.4	-.5	-.4	-.5																		
									46.3	44.0	58.5	54.2																		
Corrected Means.	.984								✓ 3.3	✓	✓ 4.3	✓																		
									.261 / 84		.366 / 74																			

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. — 5.6 ..... .928

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

Mean at Station, corrected, and at 32°, ... 928

Correction for height, feet above Mean Sea Level, ... + 1.000

Mean, reduced to 32°, and Sea Level, ... 29.928

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

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

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

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 6 th, ... 77 ✓

Lowest in Month, on 21 th, ... 25 ✓

Difference, or **Monthly Range,** ..... 52 ✓

Mean of all the Highest, ... 61.5 ✓

Mean of all the Lowest, ... 40.6 ✓

Difference, or **Mean Daily Range,** ..... 20.9 ✓

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 51.1 ✓

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, ... 46.3

Wet Bulb, Mean of A.M. and P.M. Readings, ... 44.0

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

Do. **Elastic Force of Vapour,** ..... .261

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

RAIN fell on 7 **Days; Amount in Inches,** 0.42

WIND. SUMMARY. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	1				1	2	7	9		
P.M.										
Sum.	2	0	0	0	2	4	34	18	0	2.7

* 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, ...	7
Snow, ...	–
Hail, ...	–
Thunder, ...	–
Clear Sky, ...	6
Overcast, ...	7
Fog, ...	0
Ground Frost, ...	7
Gale, ...	4

INSTRUMENTS IN USE.

Barometer, No. 17358

Dry Bulb, No. 518

Wet Bulb, No. 518

Maximum, No. 17067

Minimum, No. 66739

Solar Radiation, No. 10477

Grass Min., No. 861

Sun Recorder, No.

1-foot Therm., No.

4-foot Therm., No.

Observations made and Return verified by John M Troup

(*Signed*) J M Troup

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 October 1911.

Lat. 57 2 Long. 3 12W Height of Cistern of the Barometer above Mean Sea Level 977 feet, above Ground 3 feet. Diameter of Rain Gauge 8 ins.

Height of Gauge above Mean Sea Level 977 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 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.	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	29.250	40			52	33	105	30	37	35	50.6	49	—	NNW	3					7							Bc	Bc	10 15 am 1 20 Pm Dull but fair	1
2	29.050	40			49	32	90	28	34	33	49	46.6	.32	W	1					10							OS	R	Dull & R throughout Evg R	2
3	28.950	43			48	40	108	37	41	40	46	41.4	.15	NNW	4					10							O	R	My dull R after. R throughout	3
4	29.100	43			50	40	105	37	42	40	48	42.3	—	N	8					10							O	Bc	My dull Clear after	4
5	29.200	42			52	36	112	34	38	37	48.6	43	.01	N	1					8							Bc	Bc	Clear & fair. 3 Pm 4 20 Pm	5
6	29.256	45			50	40	115	37	43	41.4	48	41.4	—	E	1					10							O	Bc	My dull Clear after	6
7	28.950	33			55	33	116	20	28	26	51	49.4	—	W	1					0							B	Bc	hfr Clear & fair	7
8	29.000	44			50	37	90	33	39	37	47	46	.03	W	1					10							O	Bc	Clear & fair	8
9	29.400	40			61	35	123	30	38	37	56	54	—	NW	1					10							Bc	Bc	hfr Bright Sunshine	9
10	29.400	33			61	24	123	20	34	32	58	52.6	—	W	4					8							Bc	Bc	hfr Bright Sunshine	10
11	29.250	35			60	27	120	23	35	32.6	59	57	—	W	1					4							Bc	Bc	hfr Bright Sunshine Evg R	11
12	29.100	35			61	26	100	23	32	31	58	55	—	SW	1					0							B	Bc	hfr Clear & fair Evg Hazy.	12 ∞
13	29.000	37			50	33	84	32	40.6	37	50.6	48	—	W	1					10							O	Bc	My hazy Clear after.	13
14	28.956	36			57	27	110	23	33	31.5	56.6	51	—	SSW	1					0							B	Bc	Clear & fair P at night	14
15	29.300	41			59	31	112	27	43	40.4	58	54	.07	W	1					10							Bc	Bc	Clear & fair P at night	15
16	29.450	45			53	35	87	32	41.6	40	52.6	50.5	—	SE	3					8							O	O	Dull but fair	16
17	29.250	45			56	45	104	40	47	44.6	52.6	47	—	E	3					10							O	Bc	My dull Clear after	17
18	29.100	46			58	33	115	30	38	36.7	58.7	51	—	W	1					10							O	Bc	My dull Clear after.	18
19	29.000	43			53	41	95	36	44	41	53	51	.05	W	1					10							O	O	Dull but fair Evg P.	19
20	28.750	48			52	40	98	38	47	45	51.7	50	.04	W	1					10							OS	O	My P Dull after	20
21	28.500	47			58	40	95	37	49	47	56	51	.24	SW	4					10							O	OS	My dull Afternoon P Evg R	21
22	28.100	45			56	43	105	40	44	42	55.6	50	.03	SSE	1					8							Bc	Bc	Clear & fair Evg Frosty.	22
23	28.228	41			52	32	87	29	43	41	51	49.8	.66	NW	1					10							O	PR	My dull Afternoon P Evg R	23
24	28.350	45			49	41	84	40	42	41	48.4	44	.33	SSE	3					10							h	R	Hazy & R throughout	24 ∞
25	28.200	41			45	40	98	36	40	39.5	44	41	.12	NW	2					10							O	Bc	My dull Clear after Evg Sn Showers	25 △*
26	28.200	40			47	29	99	27	33	32	46.8	42	—	NE	1					7							Bc	Bc	Clear & fair	26
27	28.250	37			49	27	97	25	35	34	47.8	44	—	N	2					8							O	Bc	My dull Clear after Evg Frosty	27
28	28.800	33			44	23	115	20	34	32	43	41.4	—	W	1					4							Bc	Bc	Clear & fair Evg Frosty	28
29	28.850	30			53	15	80	13	25	22	52	50	.10	W	1					10							O	S	My dull P after	29
30	28.150	44			52	33	84	30	49	47	50	47	.40	SSW	3					10							Bc	Bc	Clear & fair Evg R	30
31	28.350	38			44	32	104	29	40	37	43.6	41	.08	NW	4					10							O	BC	My Sn Showers Clear after	31 *
Sums.	10 72 26.890	11 35			12 86	10 105			161 287.2	113 208.7	43.6 167 408	44 343.4	5 2.63		62					6 252										
Means.	28.864	41.1			52.8	33.4			39.3	37.4	51.3	47.9			2.0					8.1										
Instrumental Errors.	+0.100								−.4 38.9	−.5 36.9 3.76	−.4 50.9	−.5 47.4																		
Corrected Means.	28.964								2.0		3.5																			
									.198		.286																			
									85%		77%																			

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. — .33 ..... 28.928

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

Mean at Station, corrected, and at 32°, ... 28.928

Correction for height, feet above Mean Sea Level, ... + 1.055

Mean, reduced to 32°, and Sea Level, ... 29.983

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

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

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

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 9 th, 10., 12 61

Lowest in Month, on 29 th, ... 15

Difference, or **Monthly Range,** 46

Mean of all the Highest, ... 52.8

Mean of all the Lowest, ... 33.4

Difference, or **Mean Daily Range,** 18.4

Mean Temperature of Month, ½ (Mean Max. + Mean Min.), ... 42.6

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, ... 38.9

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

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

Do. **Elastic Force of Vapour,** ..... .198

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

RAIN fell on 15 **Days; Amount in Inches,** 2.63

WIND. SUMMARY. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	4	1	2	2	2	3	13	4		
P.M.										
Sum.	8	2	4	4	4	6	26	8	0	2.0

* 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, ...	2
Hail, ...	1
Thunder, ...	0
Clear Sky, ...	3
Overcast, ...	19
Fog, ...	1
Ground Frost, ...	16
Gale, ...	4

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

1.055

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 1911.

Lat. 57 2 Long. 3 13 W Height of Cistern of the Barometer above Mean Sea Level 927 feet, above Ground 3 feet. Diameter of Rain Gauge 12 ins.

Height of Gauge above Mean Sea Level 927 feet. Height of Rim of Gauge above Ground 3 ft 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. 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. (°)	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	40			46	34	96	31	39	36	43.8	41.4	—	W	1					4							Bc	Bc	Clear & fair	1
2	28.500	42			47	36	94	32	40	37	46.9	41	·25	NW	4					8							Bc	Bcp	Clear & fair Evg R	2
3	28.460	41			49	34	103	31	40	37.8	47.8	46	·61	NW	6					10							O	R	9 am Dull & R throughout till 10 Pm	3
4	28.150	40			46	33	90	33	40	38	44	40	·56	NNW	8					10							R	R	Dull & Showery. Evg R	4
5	27.350	41			44	39	85	36	40	38	42	40	·57	NW	10					10							R	R	Dull & R throughout	5
6	28.150	40			46	37	87	34	40	36	44.8	41	—	W	3					7							Bc	Bc	Clear & fair	6
7	28.450	38			47	33	86	30	38	36	44	40	·41	SW	1					8							Bc	Bcr	Clear & fair R at night	7
8	28.100	40			46	34	113	32	37	36	44	41.6	·03	NE	4					10							OP	Bc	Mg dull & Showery clear after.	8
9	28.450	34			42	25	95	23	27	26	40	38.7	—	W	1					0							B	Bc	hfr Clear & fair	9
10	28.700	33			44	27	96	24	29	28	43.7	41	·04	W	1					4							Bc	Bc	hfr Clear & fair P at night.	10
11	28.600	36			46	31	94	29	37	35	44	42.8	·02	NW	1					10							O	P	Mg dull afternoon P.	11
12	28.400	36			42	32	98	28	36	34	41.7	39	·37	NW	1					10							O	P	Mg dull afternoon P Evg R	12
13	28.300	41			44	37	99	35	38	37	43.6	41	—	W	1					10							O	O	Dull but fair	13
14	28.850	40			45	39	94	36	40	39.4	44.8	40	·21	SW	1					10							O	OR	Dull but fair Evg R	14
15	28.500	46			46	40	94	38	44	40.7	45	42.6	·11	W	1					8							Bc	O	Mg Clear dull after Evg R.	15
16	28.050	42			42	40	92	37	40	38	41	38.8	·63	SW	1					10							R	RS	Dull & R throughout * at night ⊠	16
17	28.100	36			43	34	91	32	35	34	42.8	40	1·02	SE	1					10							OS	S	⊠ Dull & * throughout	17
18	27.900	35			46	30	92	28	36	34	44.8	40	—	W	1					6							Bc	O	⊠ Dull but fair Fresh	18
19	28.000	36			44	33	90	30	37	36	43	40	·23	N	1					10							O	P	⊠ Dull & P throughout	19
20	28.450	37			40	34	87	31	38	36	38.8	37	·20	N	3					10							S	S	⊠ Dull & * throughout	20
21	28.500	31			41	29	89	26	37	34	37	36	·53	NNW	6					10							S	O	⊠ Dull & Sn showers. * at night	21
22	28.600	36			40	30	84	28	36	35	39.8	37	·05	NW	1					10							O	R	⊠ Dull & Showery.	22
23	28.400	35			43	31	89	27	36	35	40.9	38	—	W	1					10							O	O	⊠ Dull but fair	23
24	29.030	33			40	30	78	28	34	33	39	36	—	SW	1					8							Bc	Bc	⊠ Clear & fair	24
25	29.100	30			43	21	86	19	27	26	40	37	—	W	1					10							O	O	⊠ Dull but fair	25
26	29.152	31			43	28	83	23	33	32	43	41.8	—	SW	1					10							O	O	⊠ Dull but fair	26
27	28.950	36			40	30	80	30	34	31	39	36	·40	SE	1					10							O	P	⊠ Mg dull Showery after	27
28	28.600	34			44	29	84	25	35	34	42	40	—	W	1					10							O	Bc	⊠ Mg dull Clear after	28
29	29.000	36			43	30	88	28	37	36	43.8	41	—	W	1					6							Bc	Bc	⊠ Clear & fair lu ha	29
30	29.050	38			48	27	88	24	40	38	46.9	43	—	SE	8					10							O	O	⊠ Dull but fair	30
31										16																				31
Sums.	15.162	216			122	69			200	1461	837	297.1	6.24		83					259										
Means.	28.505	37.2			44.1	32.3			36.7	34.9	42.8	39.9			2.8					8.6										
Instrumental Errors.	+·100 +·050								-·4 36.3	-·5 34.4	-·4 42.4	-·5 34.4																		
Corrected Means.	28.605								1.9 ·179 84		3.0 ·210 78%																			

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.—23	·582
Corrected Mean at 9 P.M., *minus* Correction for Temp.—	
Mean at Station, corrected, and at 32°,	28.532
Correction for height, feet above Mean Sea Level,	+ 1.050
Mean, reduced to 32°, and Sea Level,	29.582
Highest Reading, corrected for Index error, on th,	
Lowest Do. Do., on th,	
Difference, or **Monthly Range,**	

SELF-REGISTERING THERMOMETERS.

Highest in Month, on 3 th,	49
Lowest in Month, on 25th,	21
Difference, or **Monthly Range,**	28
Mean of all the Highest,	44.1
Mean of all the Lowest,	32.3
Difference, or **Mean Daily Range,**	11.8
Mean Temperature of Month, ½ (Mean Max. + Mean Min.),	38.2
Min. on Grass, Lowest in Month,	
,, ,, Mean,	
Black Bulb, Max. in Sun, Highest in Month,	

ADDITIONAL REMARKS.

·582
1.050
29.632

HYGROMETER.

Dry Bulb, Mean of A.M. and P.M. Readings,	36.3
Wet Bulb, Mean of A.M. and P.M. Readings,	34.4
Computed **Temperature of Dew-Point,**	
Do. **Elastic Force of Vapour,**	·179
Do. **Relative Humidity** (Saturation = 100),	84%

RAIN fell on 18 **Days; Amount in Inches,** 6.24

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.	3	1		3		5	11	7		
P.M.										
Sum.	6	2	0	6	0	10	22	14	0	2.8

* 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.*

29.6

WEATHER SUMMARY.

Number of Days of Precipitation,	18
Snow,	4
Hail,	0
Thunder,	0
Clear Sky,	1
Overcast,	20
Fog,	0
Ground Frost,	17
Gale,	3

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. A. Troup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

Halfpenny Stamp.

BOOK POST

EDINBURGH 6 PM 14 DE 11 15

SCOTTISH METEOROLOGICAL SOCIETY.

Observations taken at Balmoral, County of Aberdeenshire, During the MONTH of December 1911.

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 928 feet. Height of Rim of Gauge above Ground 12 ins.

Date.	Barometer 9 A.M. Barometer (inches)	9 A.M. Attached Thermometer (°)	Barometer 9 P.M. Barometer (inches)	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 (°)	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	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.	Weather At 9 P.M.	General Remarks	Date.
1	28.850	32			49	41	104	38	45	44	46.6	42.4	.72	W	3					10							O	Bc	9.25a My dull Clear after Evg R	1
2	28.750	36			47	29	97	27	38	37	44.8	41.6	.68	SW	1					4							Bc	R	b/p My clear Afternoon P Evg R	2
3	28.500	38			46	31	100	28	38	36.8	45	44.8	—	W	1					1							Bc	Bc	Clear & air	3
4	28.600	33			45	23	89	19	30	29	42	40	.23	W	1					0							B	Bc	b/p Clear & fair Evg Frosty R at night	4
5	28.360	37			46	23	80	20	36	34	44.8	41	.15	E	8					10							OP	OP	Dull & Showery.	5
6	28.750	34			44	29	83	24	36	35	42	40	.73	SW	8					4							Bc	O	Clear & fair Evg O R² night	6
7	28.350	34			46	29	86	25	31	30	44.9	43	—	SW	1					0							B	Bc	Clear & air Evg Frosty	7
8	28.450	30			42	21	80	19	33	30	40	39	.35	W	1					0							B	Bc	b/p Clear & air R & * at night	8
9	28.160	33			40	34	78	31	36	34	39	37	.27	SE	1					10							OS	Bc	My Showery Clear after Evg Frosty	9
10	28.150	36			41	23	80	20	35	32	37.8	38	.43	SE	1					10							O	P	My dull Afternoon P Evg R	10
11	27.650	37			39	34	76	31	36	35	37	37	.33	E	1					10							R	O	Dull & R & * throughout	11
12	28.200	39			45	31	91	29	35	34	44	42	[illegible]	SW	4					6							Bc	Bc	Clear & air Evg O P	12
13	28.500	40			44	38	88	35	39	37	43.6	41	.23	NW	4					10							O	R	My dull Clear after Evg R	13
14	28.450	40			42	40	83	37	40	39	41	40	.48	W	1					10							OS	R	My dull & * Evg R	14
15	28.500	40			45	29	83	26	37	36	44.8	43	.68	E	6					10							OR	R	Dull & R throughout	15
16	28.500	41			44	36	81	34	41	39	43	41	.15	SW	1					8							O	Bc	My dull Clear after Evg P	16
17	28.430	43			48	40	86	37	40	39	46	42	.43	NW	1					8							Bc	R	My clear Afternoon R L 7 to 9 P.M.	17
18	28.350	44			47	40	81	38	45	44	46.9	44	1.00	E	6					10							OP	R	Dull & R² throughout	18
19	28.200	43			48	38	82	35	43	41	46	43	—	S	3					6							Bc	Bc	Clear & fair	19
20	28.150	38			46	38	78	36	40	38	44	41	.02	E	2					10							O	Bc	My dull Clear after Evg P	20
21	28.200	35			44	27	77	26	33	30	43.8	42	—	W	1					0							B	Bc	Clear & air	21
22	28.560	36			48	30	100	27	34	32	46	43	—	SW	1					8							Bc	Bc	b/p Clear & fair	22
23	28.750	35			47	25	90	22	31	30	46	40	.18	W	1					0							B	Bc P	b/p Clear & air P at night	23
24	28.600	40			46	34	84	30	38	37	43	41	.10	SE	1					10							O	P	My dull Showery after	24
25	28.150	32			46	30	81	27	34	31	44	41	—	W	1					0							B	Bc	b/p Clear & fair	25
26	28.360	35			40	28	86	25	34	32	38	37	—	W	1					10							O	Bc	My dull Clear after	26
27	28.800	37			43	30	80	26	37	36	41	40	.02	NW	2					10							O	Bc	My dull Clear after	27
28	28.750	40			44	37	84	34	40	38	42	40.6	.16	SW	1					10							O	P	My dull Afternoon P Evg Frosty	28
29	28.850	36			45	31	86	28	34	33	43	41	.19	W	1					10							O	P	b/p Dull & Showery	29
30	28.750	41			45	35	62	33	40	39	44	41.8	.03	W	1					4							Bc	Bc	Clear & fair.	30
31	28.950	41			46	33	94	29	43	41	45	42	—	W	4					10							O	Bc	Clear & fair.	31
Sums.	149 13.810	11 237			16 150	12 59			14 222.6	14 172.8	146 102.8	83 31.9	610 7.01		70					4 209										
Means.	28.445	37.6			44.8	31.9			37.2	35.6	43.3	41.0			2.3					6.7										
Instrumental Errors.	~~+.100~~ +.040								-.4	-.5	-.4	-.5																		
Corrected Means.	28.515								36.8 1.7	35.1	42.9 2.4	40.5																		

.186/86 .226/83

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. —23	28.522
Corrected Mean at 9 P.M., *minus* Correction for Temp. —	
Mean at Station, corrected, and at 32°,	.462
Correction for height, feet above Mean Sea Level,	+ 1.047
Mean, reduced to 32°, and Sea Level,	29.509
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, 18	49
Lowest in Month, on 8 th,	21
Difference, or **Monthly Range,**	28
Mean of all the Highest,	44.8
Mean of all the Lowest,	31.9
Difference, or **Mean Daily Range,**	12.9
Mean Temperature of Month, ½ (Mean Max.+Mean Min.),	38.4
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,	36.8
Wet Bulb, Mean of A.M. and P.M. Readings,	35.1
Computed **Temperature of Dew-Point,**	
Do. **Elastic Force of Vapour,**	.186
Do. **Relative Humidity** (Saturation = 100),	86
RAIN fell on 22 **Days; Amount in Inches,**	7.01

WIND. Direction.	N	NE	E	SE	S	SW	W	NW	Calm or Variable.	Mean Force 0—12.
A.M.			5	3	2	6	12	3		
P.M.										
Sum.	0	0	10	6	4	12	24	6	0	2.3

* 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,	22
Snow,	4
Hail,	0
Thunder,	0
Clear Sky,	7
Overcast,	16
Fog,	0
Ground Frost,	19
Gale,	4/10

INSTRUMENTS IN USE.

Barometer, No.	1758
Dry Bulb, No.	518
Wet Bulb, No.	518
Maximum, No.	67067
Minimum, No.	65988
Solar Radiation, No.	10687
Grass Min., No.	854
Sun Recorder, No.	
1-foot Therm., No.	
4-foot Therm., No.	

1064
17

Observations made and Return verified by John McTroup

(Signed) J McTroup

THE SECRETARY

SCOTTISH METEOROLOGICAL SOCIETY

122 GEORGE STREET

EDINBURGH

BOOK POST

Balmoral
1911