

July 1st

Top clear in afternoon, no fog in valleys but sky cloudy. Some Cirrus seen moving from S^W Haze to W and SW in evening. Solar Halo seen at 18^h

July 2^d

Misty or cloudy sky and mist hanging about hills round all day. Dark ugly look to SE when clear in afternoon. Thunder was heard at 13^h-45, at 15^h-30^m, and at 16^h-55^m. Heavy showers of rain all afternoon and at night. A Rainbow was seen at 18^h. At 21^h St Elmo's Fire: nothing could be seen as it was daylight but post A and the anemometers were hissing loudly, could be heard 20 yards off, and a tingling sensation was felt in observer's face & beard when turned upwards.

July 3rd

Fog or mist almost all day. Showers of rain in forenoon.

Mr Rankin came up to Observatory and Mr Omond and George Day went down to the Low Level Observatory.

July 4th

Mist or fog till 20^h Summit clearing thereafter but mist all round below. Showery all day

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July 5th Top clear but sky cloudy and broken²
fog in valleys below till 8¹⁵ - mist and rain
during the rest of the day.

July 6th

Mist or cloudy sky all day with heavy
showers of rain throughout, and a shower
of sleet at 1¹⁷.

July 7th

Mist or fog all day. Showers till 15^h fair
thereafter

July 8th Mist till 21^h (thin driving wet mist)
Summit clear afterwards but other hills all
covered, and high cum-s (4) in sky.

At midnight the N^W sky was pretty
free from cloud, and the Spectrum colours
(and bands) were very distinct and pure.

The arrangement was as shown
in diagram -
The air over the fog was
very clear.

Intense Violet	
Blue	cloud
Pale Green	
Bright line	
Hazy band	
Yellow streak	
Hazy Band	
Dark Red.	
Horizon	x

July 9th Air dry all day - low-
est humidity 46 at 21^h. Fog on
hills below 3000 ft. most of the
day, and in the evening blowing over Summit
also. Cirri forms on sky, on which from
9^h till 13^h a solar halo was visible. A 5^h fog
was observed pouring down on the W & SW sides
of Aonach More.

At 23^h Pearly Cirrus was seen in the
N^W sky for the first time this summer

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at 23^h 5^m the Highest point of the Peaky Cirrus 3
was 5° 18' and the lowest 3° 14' above
the horizon. Photographs were taken of
the Phenomenon and several measurements
made of certain bright streaks in the
cloud. At midnight it filled the
whole N^w Sky from NW to NE and
reached the height of Capella then
in the NE.

July 10th

A photograph was taken of the Peaky Cirrus
which was partly obscured by Cum-Cir or Cir-S
clouds at 0^h 35^m. These dark clouds gradually
increased, and at 1^h covered the whole N^w sky
so that no Peaky Cirrus was seen thereafter.
Peaky Cirrus was not seen at night though
the sky was clear.

Fog all round below rising in the afternoon
to level of summit and occasionally
passing over it.

A Rainbow was seen at 7^h and a
glory at 20^h.

Air dry all day, except at 23^h.

July 11th

Fog all round to level of summit till
8^h. After this it rose and enveloped the
hilltop for the rest of the day. Changing to
mist at 18^h from which at and after 20^h drizzling
rain was falling.

July 12th

Fog or mist all day. The 16^h observation was
made at 16^h 7^m no correction applied to readings.

1891

4

July 13th

The Summit cleared after 10^h and remained clear except for a little fog passing at times for the rest of the day. Broken fog on hills till 21^h - none thereafter.

Pearly Cirrus seen to N⁵ at midnight. Stretching from NW to NE, its highest point being then $14^{\circ} 16'$ above horizon and its lowest limit $7^{\circ} 8'$ above same.

- o A light of Dazzling brightness was seen to SW-S about on a line with Observatory ^(at 10th past mid.) It appeared to be stationary - was seen for about 30 seconds then it vanished and in a few seconds it was seen again as a faint red speck in the same place. This red speck lasted for a few seconds when it vanished in an intensely white flash.

July 14th

The pearly Cirrus continued visible till after 2^h. Two photographs were taken of it at 1^h 15^m to 1^h 26^m and several measurements were made to compare with photographs. At 3^h it was not to be seen but the N^W NE^m and E^W Sky was full of faint filmy dust streaks.

The air was dry today except from 4 am till 8 am. Fog lay on the lower hills around most of the day and at times passed over the summit also.

Pearly Cirrus was seen to N⁵ at 23^h. Its upper limit was then 40° from the Pole Star. At midnight there was only a trace of it in the Sky.

1891 July 15th At 1^h a little pearly Cirrus was seen to N^o and NE^o. At 2^h there was none seen. Haze and broken fog below 3000 ft. Most of the day.

At 15^h some cum clouds close overhead were moving quickly from the E^o while at the Observatory there were only very light variable airs.

The air over 3000 ft. was very clear today. Very fine Sunset.

July 16th

Fog all round below and occasionally passing over Summit.

At 3^h and 4^h a dark cloud steadily approaching Ben Nevis was observed to E^o. At 4^h it was just on and drops of rain fell. At 1^h and 2^h the humidity was 65 and 68 respectively.

July 17th

Mist on summit or passing till 18^h. Air dry throughout but mist and haze all round below.

This evening a new thermometer-box was mounted to SE^o of old clock box. It is an ordinary (or the Standard size of double louvered) Stevenson screen, with wire netting below.

July 18th

Mist or fog on Summit or passing and air saturated or nearly so till 14^h. Day clear throughout and air drier.

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After the 16th observation the dry and wet 6 bulbs in Old (Clock) box (535541 and 535542) were put into New Box, and another set (dry 192677 and wet 192671) put in Old Box, and readings taken of both sets up till midnight when the Old (Clock) Box readings were discontinued and the New Box came into hourly use. After the 21st observation the max (117293) and min (116918) and zone test were put into New Box.

The double set of readings made are entered below. From 17th to 21st (incl.) the readings were made of the two sets of thermometers in the boxes as above stated, but after that the instruments were exchanged; ~~and~~ As the difference between the readings seems to be due to the instruments and not to the boxes the readings of Dry 535541 and Wet 535542 were entered on daily sheet at each hour.

Old (Clock) Box		New Box		Difference	
Dry 192677	Wet 192671	Dry 535541	Wet 535542	Dry	Wet
17 th 45.8	46.1	45.1	44.8	-0.7	-0.3
18 th 46.1	44.6	45.5	44.0	-0.6	-0.6
19 th 44.9	44.1	44.4	43.8	-0.5	-0.3
20 th 43.1	41.7	42.7	41.2	-0.4	-0.5
21 th 41.8	41.1	41.3	40.7	-0.5	-0.4
		Mean		-0.5	-0.4
Dry 535541	Wet 535542	Dry 192677	Wet 192671	Difference	
22 th 40.7	40.0	41.1	40.3	+0.4	+0.3
23 th 40.1	39.5	40.3	39.9	+0.2	+0.6
24 th 39.4	38.7	40.0	39.1	+0.6	+0.4
		Mean		+0.4	+0.4

1891

7

July 19th

Mist on Summit from 3^h till 6^h and at and after 16^h. Sky cloudy.

Heavy shower of rain between 22th and 23th.

July 20th

SW^{ly} wind and mist^{and rain} all day.

July 21st

Mist and rain till 17th. Clear thereafter but sky overcast, and some haze and broken fog below all round.

The 15th observation was made at 15^h 6^m. no cor. applied.

Today Messrs T. F. Gillies and C. E. May arrived at the Observatory and Mr. J. Miller went down.

July 22nd

Summit clear till after 5^h. Mist for the rest of the day.

July 23rd

Mist or fog till 19^h and after 21^h. At 20th and 21th it sank below the level of summit but covered all the other hills around.

July 27th

Heavy rain fell between 0th and 1st today and James Dunley reports having at 1st seen several flashes of lightning.

Sudden fall of temperature in morning from 38.0 at 1st to 29.0 at 7th. Slight snow showers all times. Robinson's Anemometer laid after 7th.

1891

8

July 28th

Slight showers of snow and sleet during the day. Mean temperature for the day is $31^{\circ}4$. max $33^{\circ}0$. min $29^{\circ}6$.

Rather squally N^W winds.

July 29th

Temperature rising all forenoon. Very variable winds all day, chiefly Northw. Rather squally in early morning and again at night.

Robinson's anemometer was started after 12^h.

July 30th

Fog and showers of rain till 11 am. Cloudy in afternoon but summit clear and all the hills around free from haze or fog. Fog on again at 12 and after 18th except at 21. When cum f was seen all round below, and some cirrus radiating from NE in sky.

At 15th today the minimum thermometer in box was found unhooked with bulb end lying on wire netting, and index down—tampered with by tourists.

July 31st

Summit clear all day. Air warm and very dry. Fog below from 3000 to 4000 ft all morn, breaking up about the middle of the day, but continuous again at night. Very fine sunrise and sunset. Sky somewhat cloudy with cir-c types. Solar Halo seen at 14th.

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August 1st

9

Summit clear but mist all round below at 1st and 2nd. At 3rd the mist rose to level of Summit and covered it during the rest of the day.

August 2nd

Mist with showers of rain (and sleet at 12th) till 20th. Top clear but sky cloudy thereafter.

August 3rd

Summit clear and air slightly dry till 16th. Mist and saturation thereafter.

Heavy shower of Hail at noon, and heavy thunder showers of rain and at times sleet all afternoon.

Several peals of thunder heard between 17th and 18th - no lightning seen but before each thunder peal the telegraph needle gave a sharp click.

August 4th

Mist most of the day. Very heavy rain in early morning. 0.470 inch falling in the hour ending 4th.

Squally W^{ly} winds in forenoon at 4th force was 4 to 7.

Very wild looking clouds all round and about at 4th and at 21st. There was a lot of hard Str-cir in lumps and layers between the Higher and lower clouds. Str-cir was motionless.

1891

10

August 5th: Mist till 11^h but air slightly dry and 1st clear at times since then: Drizzle in early morning: light northerly wind all day

August 6th

Air dry till 14^h: very dry from 4^h till 6^h: steady northerly breeze of force 1-2: cloudy in forenoon and fog below all round which rose covering the 1570 there being fog or mist onwards from 11^h with occasional breaks: Solar Halo seen at 8^h: Scattered sunshine from 6^h till 13^h

August 7th

Air saturated and mist all day: moderate northerly wind of average force about 2: strongest 20 miles an hour: rain nearly all day: heavy showers in morning
To-day Mr L. Stewart arrived at Observatory & Mr A. Rankin went down

August 8th

Air saturated all day: mist over the summit all day with frequent showers of rain: wind somewhat squally in morning

August 9th

Almost continual fog or mist over summit: some short heavy showers of rain in the afternoon: air saturated all day

August 10th

Fog or mist in morning till 7^h: summit clear from 8^h till 18^h: the fog then passed over ^{the hill} but for a short time disappeared leaving summit clear: cum-stratus above horizon when summit was clear: very little rain: air somewhat dry from 8^h to 18^h: 9.56 hours of sunshine recorded during the day.

August 11th

Mist or fog over summit all day: slight drizzle most of day

1891

11

August 12th

Mist or fog all day: moderate squally wind varying chiefly between N+W: some heavy showers of rain: greatest hourly rainfall was 0.285 between 1st & 2nd.

August 13th

Mist or fog till 20th when the fog began to disappear showing cumulus & stratus: fine display of colours after sunset especially on stratus: some showers of rain in forenoon.

The air was saturated at all hours except 23rd when the humidity was 89

August 14th

Summit covered from 2nd: drizzling rain most of day: light south westerly wind

August 15th

Mist or fog all day: wind variable but chiefly northerly

August 16th

Summit clear almost continuously from 6th to 22nd: very slight wind, northerly till 7th, southerly after that: no fog below when summit was clear: air slightly dry from 6th till 22nd: minimum humidity 88:

Scattered sunshine during day: very fine sunset: the anemometer had been making a great deal of noise after 20th & was oiled after 22nd & also after 23rd observation.

August 17th

Barometer falling till 22nd: pumping during large part of day rendering correct reading difficult: thermometer practically rising all day: south easterly gale especially apparent since 4th: greatest hourly velocity of wind was 18 miles between 13th & 14th: mist or fog all day
Max. Temp. 43.2 Black Bull Max. 51.0

George Day arrived at the Observatory to-day, and James Dunlop went down

August 18th

The gale of yesterday showed signs of moderation at 3rd, and at 4th the observation of wind pressure gave 0-1.

1891

12

Moderate squally wind during day: summit clear between 11^h & 15^h: fog or mist afterwards with occasional breaks: heavy shower of rain between 18^h & 19^h.

August 19th

Summit occasionally clear bet. 11^h & 19^h: fog often driving across it: hazy all day: heavy shower of rain bet. 13 & 14^h: scattered sunshine

Just before the 17^h observation the thermometer box was opened by tourist who was found examining the thermometers.

August 20th

Summit occasionally clear after 8^h: fog often passing over it: light easterly wind in forenoon: almost calm after noon: air slightly dry at intervals: heavy rain bet. 15^h & 18^h: Sunshine 11 hour

August 21st

Summit covered almost continually after 5^h: squally northerly wind: barometer pumping from noon

August 22nd

Clear for the most part between 9^h & 17^h with fog passing at times: squally northerly wind. Between 1^h & 2^h some animal, probably a weasel was heard rumbling and scraping behind partition in passage between kitchen & office

August 23rd

Summit clear from 11^h to 22^h: a great deal of cirrus visible: wind northerly till 10^h: calm at 11^h: southerly from noon onwards

At 3^h the Dry Bull rose rapidly on opening box making correct reading difficult.

The Max. reading at 21^h gave 34.2: the lowest hourly reading was 32.4: the thermometer had been tampered with (it had been in this position)

1891

13

Lunar corona seen at 1^h, 2^h, 3^h, & 4^h.
Weasel seen on summit at 5^h.

August 24th

Barometer falling all day: fog passing over summit in morning: mist from 7^h:

Dim Lunar corona seen at 2^h.

At 15^h Rain gauge fell from tackle and was indented: it was replaced by the spare one.

August 25th

Barometer falling rapidly after noon: mist all day

Barograph marked at 22^h 13^m: time error about 12 min fast.

August 26th

Barometer falling till 4^h: rising after that: lowest reading was 24.360: greatest hourly rise .078 in. between 7^h & 8^h: summit covered all day: heavy showers of rain till 13^h: squally variable wind chiefly westerly.

August 27th

Summit mostly clear from noon till 19^h. with fog passing at times:

Double glories seen between 11^h & 13^h: rainbow seen at 19^h.

The 4^h was inadvertently delayed till 4^h 27^m: the Barometer & Anemometer were corrected: conditions pretty steady about that time:

At 5^h the end of the column of the Min. Thermometer registered 35.0 while the index was partly immersed in column registering 37.2: the thermometer was set afresh.

It is reported that two weasels were seen on the summit to-day.

At 16^h there was a very fine colour effect: there was cumulo-stratus all round above horizon except to SW where there was stratus with small patches of cumulus: to the SW there were successive layers of lemon colour, pink

and olive green; to the NW was grey cumulus, while to the N there was a rich pale blue on horizon

August 28th

Summit covered from 2^h: heavy showers of rain and hail: snow fell in morning and afternoon:

Anemometer tied after 17^h: untied at 18^h.

August 29th

Barometer rising till 22^h: fog rising and falling at intervals: showers of hail and snow: snow on ground between 5^h & 8^h: hoar frost from 22^h till 8^h next day

Double glory seen at 10^h 54^m: rainbow seen at 16^h:

Splendid display of aurora between 22^h & Midnight:

the aurora at 22^h extended from W x N to NE x N

while the streamers ran upward to within 30° of zenith.

No clouds in sky from 21^h to Midnight

Anemometer tied at 5^h: untied at 9^h

~~Anemometer~~ tied again at 20^h

Min. thermometer registered 30.1

August 30th

Barometer falling: summit clear at times:

Sunshine recorded .01 hour: minimum thermometer registered 28.5

At 5^h thermometer box found open: some visitors on summit between 4^h & 3^h.

Anemometer untied at 13^h.

August 31st

Barometer falling: greatest fall .08 in. between 16^h & 17^h:

summit covered all day: squally south-easterly wind changing to south-west at 20^h: heavy showers of rain in evening:

.78 in fell between 20^h & 21^h.

September 1st

Bar. falling 14^h: rising rapidly after that: rise of .075 in. bet 15^h & 16^h: Bar pumping all day:

heavy rains with squally wind: max hourly rainfall .526 in bet 14^h & 15^h: Mist all day.

Mist and heavy rain all day. Barometer
pumping at 14th + 16th.

Today Mr. A. Rankin arrived at Observatory
and Mr. P. J. Gillies went down

September 3rd

Fog or mist till 10th and after 20th. Showers of
Snow and Hail fell in early morning.
Glories were seen at 10th and a Solar Fog-bow
at 12th. Thin haze all round in distance in
the afternoon

September 4th Today Mr. J. Miller arrived at observatory
and Mr. A. Rankin went down.
Mist fog or overcast sky all day with occa-
sional sunny intervals. Towards evening

September 5th

Mist on Summit all day. Heavy shower
of Rain between 18th and 22th. A Weasel
was seen on Office roof this morning

September 6th

Barometer falling till 4 pm, but rising pretty
briskly since. Temperature very low all day
with heavy showers of snow and hail throughout
the day over a tenth of an inch being recorded
almost every hour. Robinson's anemometer
tied up at 6th and started again at 16th.

September 7th

Barometer rising rapidly all day pumping
slightly at 5th. Light shower of sleet fell in
early morning. Mist or overcast sky till 19th
almost cloudless since. Air occasionally dry
in afternoon but very dry after 22th when the
Humidity was 58

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September 8

16

Sun rose from behind a cloud bank at 5^h 29^m. Fog ~~over~~ hills to E+NE and in valleys to 5^h till 7 am but almost continuous mist on Summit thereafter. Air very dry at 1+2^h humidity about 57.

September 9th

Barometer jumping at 11^h. Temperature very high all day: Heavy showers of rain fell from 13^h till 15^h over two tenths being recorded hourly. Greatest fall 0.435 inch at 11^h.

September 10

Summit cleared at 3^h and sky nearly covered with Cirrus and Cirro-Stratus, detached cumulus fog on hills and thick haze in valleys all round below till 15^h since then fog has come on with occasional breaks.

Barometer jumping at 11^h. Temperature very high all day.

September 11th

Mist till 4^h and sky almost covered with Cirro-cumulus and Cirro-Stratus all day. Fog hanging about hills to 3000 ft the greater part of the day and thick haze all round below. Temperature very high all day { max 54.2; min 42.6: Faint Halo was seen at 14^h.

September 12th

Sky almost cloudless except at 3^h when fog enveloped Summit. detached fog in valleys to W+N and thick haze all round. Temperature very high all day. The highest hourly reading this year occurred at 13^h when the Big Bull read 59° 0. An Aurora with faint streamer was seen at 4^h.

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September 13th

17

Sky nearly cloudless till 3th Fog and overcast sky till 20th mist since with heavy showers of rain Barometer falling all day rather quick in the afternoon. Temperature pretty high all day.
 Max { 59.9 : Humidity about 66
 min { 46.3 :

September 14th

Mist and fog all day except at 8th when the Summit was clear but sky covered with Cumulus. Detached fog on hills to W. NNW and SE. Barometer falling till 6th and rising slowly since. Temperature falling rapidly till 13th and slowly since. Greatest fall in 1 hour 5 degrees between 6 + 7th. Early range 15 degrees. Rain fell throughout the day and heavy showers of snow and sleet after 19th.

September 15

Barometer rising all day, pumping slightly in forenoon. Temperature fell below 32 degrees at 7th but rising rapidly since. Showers of snow and sleet fell till 9th drizzle since. Mist and fog all day.

Anemometer tick after 7th and started again at 10th. Mr C Stewart left Observatory today.

A large Weasel caught in trap at 18th 20th

1891

September 16th

18

Mist and heavy rain all day. From 17th till midnight 2.418 inches of rain fell. Greatest fall in 1 hour 0.542 inch between 20th & 21st

September 17th

Mist and heavy rain till 7th drizzle since. Greatest fall in 1 hour 0.663 inch at 1st

Barometer falling all day. Temperature rising

September 18th

Mist and heavy drizzle all day

September 19th

Barometer rising slowly and temperature falling all day. Mist and drizzle till 23rd since then summit clear but sky overcast with Cirro-Stratus and detached fog in valleys. Lunar Corona seen at 23rd and a Lunar Halo at midnight.

Today Mr R. C. Mossman arrived at Observatory

September 20th

Summit clear but sky overcast with Cirrus + Cirro-Stratus till 14th mist since with showers of snow. Variable winds chiefly westerly till 12th and gusty northerly winds since. Detached fog in valleys almost all day. Barometer falling from 21st. A Lunar halo seen till 4th and a Solar halo at 11th. Four measurements of Radius to inside of Lunar halo given - 23° 9' : 23° 10' : 23° 14' : 23° 11'

September 21st

Squally Northwesterly winds and Barometer pumping heavily all day. Mist and fog all day except at 18th when Summit was clear for a short time but sky overcast. Exposed Thermometers were not read being coated over with ice. Showers of snow and sleet fell in the forenoon.

September 22nd

Barometer rising slowly all day. Temperature rising till 18th falling since. Light North-east breeze till 10th variable airs or calm since. Air dry lowest humidity 51 per cent at 7th. Sky partly covered with cirrus and cirro-cumulus till 17th cloudless since but fog on hills all day. Robinson — anemometer started at 13th.

September 23rd

Sky cloudless till noon but fog blowing over the hill tops at times continuous fog since. Barometer about steady and Temperature rising all day. Air dry in forenoon lowest humidity 46 per cent at 2th. Luman Corona seen at 4th. Today Mr G. Day went down the hill.

September 24th

Fog and mist all day except at 2th but sky overcast with cumulus-stratus and thick cumulus fog all round and passing

1891

over Summit at times, Air Saturated or 20
nearly so: Steady S E breeze till 10th but
veering to Westward and falling, light since
Highest hourly velocity 45 miles at 9th
drizzle almost all day.

September 25th

Summit clear from 13th till 17th but sky overcast
with cirro-stratus and fog passing over Ben here
at times. Barometer rising till 9th falling
since quickly since 14th. Temperature pretty
steady till 12th rising since. Air Saturated
or nearly so all day. Light westerly
winds till 9th but backing to Southward
and blowing a strong breeze since.
Highest hourly velocity 59 miles at 20th
drizzle in forenoon and heavy rain
since 18th: Solar Halo at 16th!

September 26th

Summit clear from 2th till 5th, and ^{sky} almost
cloudless, and thick Cumulus fog all round
Barometer falling rapidly till 11th and
rising somewhat unsteadily since: Air
slightly dry in morning. Slightly South
Westerly winds till noon and veering
Northwest since. Snow and Hail shower
fell from 9th till 16th and heavy drizzle
since: Barometer pumping almost all day

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September 27th

21

Mist and fog all day: Barometer pumping in the early morning

September 28th

Very heavy rain at times - Fall of over 7 deg- in temp from 20° to 21° - Today Mr Mossman went down the hill and Mr R.T. Omond came up -

September 29th

Today Mr Gray & G. Robertson came up from Fort William -

September 30th

at 20° - the Hardy Black Bull was taken in - Today Mr J. Miller went down the hill -

October 1st

The temperature was at or below 32° all day and showers of snow fell and lay on the hill top.

The Anemometer was tied up at 3° .

October 2nd

Fog clear and air dry from 9^{th} till 16^{th}

The summit continued white with snow all day.

Mr Rankin came up from Fort William and Mr. Omond went down.

October 3rd

Temperature rose to over 40° this forenoon and kept up during the rest of the day.

1891

22

Mist and drizzle all day.

The anemometer was started after 18th.

October 4th

Mist and rain all day, with the temperature about 40°.

The snow has all thawed away.

October 5th

Strong SE gale all afternoon. At 22^h and 23^h the anemometer registered 103 and 109 miles respectively for the hours previous.

Summit clear from 13^h to 20^h ~~for~~.

October 6th

The SE wind continued till 12^h but gradually fell in force. It backed to S in the afternoon.

In the evening the temperature fell to 32° and the anemometer had to be tied up after the 19th observation.

Top clear at and after 18th at 19^h brilliant flashes of lightning were observed in the distance to W and SW. In some of the flashes the distant clouds were seen as dark sharply defined masses against an intensely bright sky from SW to NW.

Showers of hail fell in the evening.

October 7th

The wind backed slowly from SW during the day and at 19^h began to blow a gale from SE with heavy rain. The anemometer was set going at 18^h the highest hourly velocity registered thereby was 95 miles an hour at 21^h-22^h.

October 9th

The wind backed to SW by 3rd and moderated to a gusty breeze, and continued SW or W for the rest of the day.

Showers of hail, snow and sleet fell at night at 17th St. Elmo's Fire was heard, and at 22nd it was seen on the tower and chimney, etc. The anemometer was tied after the 20th obs.

October 10th

A South easterly gale of over 80 miles an hour blew from 7th till 17th.

Sleet and heavy rain fell in the afternoon. The anemometer was started at 7th and tied after the 22nd obs.

Robert McDougall ^(C.E.O.) stayed over night at the Obs.

October 12th

Heavy showers of snow fell in the early morning and slight showers during the day.

Except for passing fog at times the top was clear from 12th till 23rd.

October 13th

Severe SE and ESE gale from 16th till 22nd at 19th and 20th it blew almost a hurricane. Except for lifting some of the snow boarding from the roof which was easily replaced there was no damage done.

Heavy rain, sleet and hail fell at and after 22nd but the rain gauge could not be changed till 23rd when the gale moderated to a squally S and SW wind. St. Elmo's Fire was seen at 12th 30^m during the SE gale.

October 14th

Variable W or SW winds all day, very squally till 12th. Heavy showers of hail and snow fell throughout the day.

1891

24

Today and yesterday the maximum black-bulled was heavily coated with ice and snow and could not be read. The bull top is now covered with a hard icy crust and some snow.

October 15

Clearing at times in the afternoon. Showers of snow fell throughout the day pretty heavily in early morning. Mr. Hugh Rankin arrived at the Observatory to do duty as temporary assistant. [The tank at Wragg's Hill was brought up for the winter, and the water barrels were emptied both at Hill and at Observatory].

October 16th

The range was not shifted during the forenoon hours - the strong wind and drift rendering it useless.

Summit clear till 3^h but sky cloudy.

At 2^h a Lunar ^{Halo} Corona was seen.

Today Mr. C. E. Gray left the Observatory.

October 18th

The wind gradually backed from N to its direction in the early morning to SSE by 13^h and rose in force to a moderate gale at 19^h and continued blowing strongly till midnight.

A Lunar Corona was seen at 5^h.

October 19th

Mist or fog most of the day with heavy showers of snow. Clear intervals in evening but fog all round below.

October 20th

Strong SE wind all afternoon blowing a gale at and after 19^h. St. Elmo's Fire was seen at 23^h. Brown fog crystals forming during the day.

1891

October 21st

25

Strong SE ^{ly} breeze all day.October 22nd

Summit clear at times today, but heavy clouds all round below and above.

A Grouse and Pigeon were seen at 11:30^{am}.
A horse was able to reach Observatory today for the first time since the 15th.October 23rdSummit clear most of the time up to 15th. Fog thereafter.

In the early morning the sky was almost cloudless, but there was some fog and haze below, and before the fog came on in the evening there were great heavy Cumulus clouds all round.

October 24thLight variable winds (chiefly N^{ly}) all day.
Showers of snow in the forenoon. Fog till 17th. Summit clear and sky cloudless thereafter.
Aurora seen at night — At 20th there were bright streamers 20° long, but no arch. At 21st only a faint glimmer low in Nth sky. At 22nd — Two arches, the lower faint; the upper bright: no streamers. Approx. altitude of top of upper 18°. 23rd Bright single arch from WNW to NE. Altitude (for Stephenson) of top of arch = 13°.43'.
" " " " base " " 7°.36'.
At midst, aurora in patches and streamers, ill defined owing to moonlight.October 25th

Sky cloudless all day except for a little cumulus in afternoon.

In the morning there was some fog low down over

1891

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26

Aurora seen at 1^h 3^h 4^h and at 23^h - in the morning very faintly - like filmy grey clouds in the moon light - At 23^h there was no arch, but some streamers were pretty bright -

October 26th

Summit clear most of the day: Variable amounts of Cir. or Cir-3 on Sky.

A Lunar Halo was seen at 4^h and 5^h

Faint Aurora low to N^o at midnight.

(This morning Mr. Ransom went down to the Low Level observatory, and returned again at midday).

October 27th

Thin fog on Summit at times throughout the day, but Sky mostly cloudless.

Haze and broken fog all around below all day. Ice crystals forming at mid^t.

Lunar Coronae seen in early morning; and Auroras at 1^h and 20^h.

After the mid^t observation the dry and wet bulbs (535541 and 535542) were taken in and another set put out (Dry 192677 - Wet 192672) instead.

October 28th

Summit clear (except for a little fog at 6^h & 7^h) and Sky Cloudless all day.

Lunar Coronae seen at 6^h 7^h and bright Glories at 8^h and 9^h. Some haze all round below, and in the forenoon some broken fog also.

Aurora seen at 3^h and at 19^h to mid^t. - mostly very faint and low near horizon.

(Today Mr. C. L. Wragge, accompanied by Mr. Livingston Visited the Summit observatory)

1891 October 29th

27

Summit clear except at 20^h and 21^h. Some Cirrus (amount mostly less than 5) on sky: and in forenoon there was some fog in the valleys: which dispersed by midday giving place to thick haze. Air very dry till noon - lowest humidity 30 at 8^h - getting damper in afternoon and Saturated or nearly so at and after 20^h.

Aurora seen at 1^h, 2^h and 3^h.

Calm all forenoon: Light Northerly air in evening.

October 30th

Summit clear almost all day, but air not very dry - lowest humidity only 75.

Thick haze and broken fog below most of the day.

Glory seen at 7^h 40^m

October 31st

Summit clear till 21^h thin mist coming on thereafter. Cirrus on sky from 10^h onwards - cloud: less prominent. Thick haze below all day. Decided rise in temperature when the mist came on.

November 1st

Thin mist or fog, or overcast till noon. Clouds and air dry thereafter.

Broken fog below all day, but the haze observed yesterday below was all gone today.

Bright Glory and fog bow seen at 11^h 15^m.

Anemometer set going at 16^h: but readings were not taken till 20^h.

Mean temperature today 39° 1.

1891

November 2nd

28

Cloudless all day.

Fog below all day - upper surface ranging from 3000 to 4000 ft. above sea level.

Temperature over 40° all day (except at 22^h = $39^{\circ} 9'$) mean being $42^{\circ} 5'$.

Air very dry all afternoons.

The Zodiacal Light was seen at 5^h and the Aurora faintly at 21^h.

Over the fog below the air was very clear.

November 3rdCloudless and very fine and warm all day. The temperature being over 40° at every hour except 2^h ($39^{\circ} 7'$) and over 50° at 12^h, 13^h & 14^h - the mean registered being $51^{\circ} 3'$, and the mean for the day $44^{\circ} 9'$.The Aurora was seen at 1^h and 2^h very faintly, and at night at 22^h, 23^h and midn. faintly also, but showing short streamers at 21^h.

Continuous fog over all the country all day only the tops of the higher hills showing through. Glories were seen on this fog in the forenoon.

Mean humidity 37. very steady all through.

The Zodiacal light was seen at 3^h.November 4thThe layer of fog below gradually rose during the early morning and at 8^h and during the rest of the day the summit was enveloped in it, except at 21^h and 22^h when it cleared for a little.

1891 From 3rd till 7th the temperature was falling 29
quickly and the humidity rising. at 3rd
the temp. was 43° 1 and the humidity 35, at
7th these were 29° 5 and 91, and at 8th 29° 0
and 100.
At 1st 3rd 4th and 22nd a faint aurora was seen
low to N. The zodiacal light was seen at 5th

November 5th

Mist all day: but temp below freezing, the
mean being 29° 5.

"Silver Frost" forming all afternoons. Wind
light chiefly northerly.

November 6th

Silver Frost forming all forenoon. Drizzle at
night. - Mist or fog all day.

November 8th

Top clear - sky overcast from 3rd till 11th. Fog or
mist with snow or sleet falling all the afternoon.

November 9th

Snow falling all day.

November 11th

Moderate to strong gale from SE: all
forenoon. During the gale the range could
not be worked, although some snow was falling
most of the time. Very thick drift till 10th.
Fog all day.

November 12th

The wind backed slowly today from N. in the early
morning to SE by 10th and during the rest of the day
blew force 5 to 6 from that direction.

The small thermometer box (winds pattern) was put
out at 16th 20^m on Ladder stand N° 2 with the

1891 Thermometers Dry 538541 Wet 535542 and minimum 30
Duplicate readings were made up till
midnight when reading the thermometers in the
large box was discontinued.

November 13th

The Wind blew a gale from ESE till after 13th when it
moderated, and after 22nd it veered to SW.

At 5th the wind is entered SE x S; another observation at 5th 15^m
gave ESE.

The thermometers were taken out of the Summer box
today and it was tied up for the winter.

At 15th ice was forming on the surface of the snow.

November 14th

Fog all day, except at 8th 9th and 20th. At 20th the sky was
almost covered with Cirro-stratus on which a Lunar halo
was seen, and detached pieces of Hard Cirrus were observed
near the horizon all around, also Cum-fog on the lower
hills.

Wind backing slowly all day from SW to ESE.

[Today Mr. James Miller returned to the Observatory and
Mr. H. F. Rankin left].

November 15th

Fog crystals forming in early morning - The fog
today was mostly thin being the top of a fog layer, which
could be seen at times all round the Ben.

Owing to the fog the beginning of the Lunar Eclipse
was not well observed.

November 16th

The Summit cleared at 2th showing a cloudless sky
above. The lower hills were also clear but there was some
haze in the valleys. A little wind passed the top
occasionally. Fog came on again at 6th and
enveloped the top for the rest of the day.

The end of the lunar eclipse was well observed
the moon was clear of the shadow at 2th 33^m.

Fog crystals forming almost all day.

The Thermometer box was shifted at 3^h 25^m.
Dry 192677. Wet 192672 and Min 138545 were put out.

November 17th

Wind gradually veered from ESE in early morning to N at and after 20^h.

At mid^d. the Summit cleared except for a little fogging at times. Some detached fog lay below to SE, N, E. and the Sky was nearly covered with Cir-S stripes which radiated from ESE and WNW.

November 18th

Sky overcast with Cir-S, on which a lunar halo was seen at 2^h, 3^h and 4^h, till 5^h: fog ^{or mist} during the rest of the day, with snow in forenoon, and heavy showers of rain, sleet and snow in evening.

The wind backed till 3^h when it was SE and thereafter steadily increased in force, blowing 5 to 6 till noon and at 13^h and 14^h falling through to a moderate breeze, and veering to SW.

The Cir-S in early morning was becoming denser each hour and gradually falling to a lower level, ice forming in evening.

The thermometer box was shifted after at 1^h 20^m — Dry 535541, Wet 535542 and Min: 138545 were put out. A reading taken at 7^h 33^m gave Dry 287, Wet 258.

November 19th

Fog or mist all day. Southwesterly squally winds (3-5) in forenoon, and light WSW or W. all afternoon, tending to veer to NW at night.

Heavy showers of snow throughout the day.

The observation at 19^h was made at 19^h 13^m.

November 20th

Fog or mist all day except a short bright break about 11^h. Showers of snow in the morning and drizzling rain at 12^h, 13^h and 14^h.

St Elmo's Fire was seen at 8^h.

Wind very variable — NE till 6^h and chiefly N thereafter.

1891

November 21st

Top cleared at 5th and continued clear till 9th when fog came on again. When the top was clear there was fog all round below.

The thermometer box was shifted at 5th 10^m - dry 192677 wet 192672 and min. 138545 were put out - height above snow not altered.

November 22nd

Summit clear from 6th till 21st. A little cirrus on sky in forenoon, and cumulus (8 to 10) in afternoon. (till 10th cloudless at 11th clear 10th)
The atmosphere was exceedingly clear during the time the summit was clear.

The wind veered from N in early morning to SSE by midn. A shower of drizzling snow fell at 3th. The snow consisted of tiny needle shaped crystals. Dk fog below in some valleys most of the day.

23rd November

Clearing at times in early morning. Heavy showers of snow at night.

24th November

Summit clear and sky cloudless from 4 am till 3 pm. when fog came on. Fog lay in the valleys all day. The wind backed from N in forenoon and to SE at night, and increased in force.

25th November

Strong SE breeze till 9 am: thereafter the wind slowly veered to S, SW, and W. Snow fell all afternoon.

26th November

Thermometer Box shifted at 19th 20^m
Dry 535541 = Wet 535542 = Min 138533 put out.
Put one stage higher on stand -

Aurora seen from 19^h to Midnight - Rather faint and low down -

November 27th Sky clear all morning, detached fog in valleys, which after noon rose & covered Ben Nevis also. Today Mr R-T Omond came up from Fort Wm. 660 and Mr Rankin went down -

December 2nd Thermometer Box shifted at 8^h 15^m -
Dry 192677: Wet 192672: Min 138545 put out.
Height above snow not altered -

December 3rd During the time the temp. was above 32° today the strong wind drove the loose icy surface in drift rendering the rain-gauges useless -

December 4th The temp. fell early this morning but it continued mist, not fog, and hard ice formed on everything - Thermometer box shifted at 10^h 10^m the hinges being damaged - Same thermometers left out -

December 7th Thermometer Box shifted at 3^h 25^m Dry 535541: Wet 535542: Min 138533 put out. Height not altered - Thin fog till 6^h, sky overcast with cir.s and cir.c but air very clear till ~~5^h~~ 17^h clouds after that - Patches of cum-fog above

Hill Tops round in afternoon, and fog on hills to N and E after sunset. Solar halo seen at 13^h and double Lunar Corona at 18^h Aurora all night after 18^h brightest at 21^h when there were streamers reaching to 60° altitude. Sky very green to NW at 14^h and 15^h. Sunset colors bright.

Today the tower lowered box & door was altered to fit new bent thermometer. The bulb of the thermometer is inside lowered screen and the graduated part inside tower.

December 8th At 11^h 30^m a Solar halo and two Mock Suns were seen. No measurements taken.

December 9th Rain & hail were falling at 20^h and 21^h but no gauge was out owing to the heavy drift. At Midnight St Elmo's Fire seen, most distinctly marked on beard and hat of observer.

December 10th Thermometer Box shifted at 13^h 20^m. Dry 192677 = wet 192672 and min 128545. put out. Height above snow not altered. Very heavy squalls ~~the~~ just before the rapid rise of the barometer at night.

December 12 Solar halo seen at 10^h 20^m and at 11^h. A good deal of drift in evening making rain-gauges useless.

December 14th

after 16^h top clear except for passing thin fog, but fog lying on hills round and sky partly clouded - Lunar corona seen at 20^h & 21^h Thermometer Box shifted at 17^h-15^m Dry 535541 Wet 535542 and Min 138533 put mt. - Height above snow not altered -

December 15th

Sky clear but fog and wind blowing over till 6^h - Lunar corona on this side - Heavy rain sleet and hail after 20^h -

December 16th

Snow & hail fell heavily till 4^h Top cleared after 9^h very fine all afternoon and air very dry - Patches of fog among hills in afternoon and str-fog on hill tops to N and E at night - Sun set at 15^h 50^m just behind east-most hill of Mull - Earth shadow & Ben shadow distinct just before & after sunset - after glow with streamers at 16^h 15^m -

Thermometer Box shifted at 10^h 15^m Dry 142677 : Wet 142672 and Min 138545 put mt. Height above snow not altered - The snow at first gorge today was found to be projecting 214 inches -

December 17th

Fog lay on hill tops to E^d in early morning and gathered again on them after sunrise - Sun rose at 8^h 47^m Haze in valleys all forenoon - Cum-fog on hills to SW after noon which after 15^h spread over Ben Nevis also -

December 19th

Owing to a leak in one of the rain gauges some of the Rainfall entries between 20^h on the 18th and 4^h on the 19th are doubtful -

December 20th

Very thick fog all afternoon, but at 20^h the stars began to be visible & for the rest of the night the sky was cloudless, but fog lay over the hills round thickest to SE, and blew over Ben Nevis also occasionally - Lunar Corona seen on this fog frequently -

Thermometer Box shifted at 22^h - 24^h

Day 535541 : Wet 535542 and Min 138533 put out. Height above snow not altered -

December 21st Sky cloudless all day, but fog on hills at about 4000 feet till 6^h - at 2^h it was blowing over the top & the temperature fell 6 degrees -

Sun rose at 8-47 - After glow before sunrise & after sunset, also Earth shadow & Ben shadow - Some haze in the valleys in the middle of the day, but air clear above it over the hill tops - Green flash seen as the Sun sank behind the Eastmost hill of Mull - Aurora, single arch seen from 21^h till 1^h on 22nd at 16^h the Wet Ball was dry & the entry on Daily sheet is interpolated : after that it was wetted between hours -

December 22^d Aurora seen at 1^h and at 20^h 21^h 22^h.
 Sky cloudless all day. From 8^h onwards haze in the
 valleys which rose just after 11^h and covered the top
 as fog. Sun set at 15^h 47^m green flash seen faintly.
 Today Mr Alex. Drysdale came up the hill and Mr
 J. Miller went down. The Raimbault Spectroscope
 was returned repaired.

December 25^d Fog most of the day but at 10^h and 11^h it
 sank below the hill top leaving sky cloudless: the air
 became dry humidity about 60 per cent.

December 26th St Elmo's Fire at 23^h. Very blue in
 colour, seen on snow covering anemometers & on
 kitchen stove pipe, not felt by observer. Ordinary
 rather small grained snow falling at the time,
 not the usual conical soft hail.

December 28^d Thermometer Box shifted at 3^h 20^m. Dry
 192677 = Wet 192672 and Min 138545 put out. Height
 above snow not altered. At 21^h and 22^h the strong
 squalls and drift made it almost impossible to carry
 a lantern outside: the Tower Thermometer readings were
 therefore used at these hours and a correction applied.
 Heavy rain, hail and icy drift at 22^h 23^h & Melt.

December 28^d Strong earth current in telegraph cable
 at 3^h 54^m. Hard conical snow falling at 8^h.

1891

December 29^d

Strong Earth current in telegraph cable at 3^h 54^m - and a weaker one at 7^h 20^m - Hard conical snow was falling at 8^h.

No strangers climbed Bon Nivis in December.

Instruments etc 1891.

Barometer No 1385 was in use during the whole year: No 1252 being kept in reserve; the latter is supposed to have a trace of air in its vacuum.

The following Dry and Wets were used -

No 535541 : 535542 : 192671 : 192672 : 192677

and up to March 4th 192660 - On March 4th the

last mentioned was accidentally broken.

Max 117293 Min 116918 were in use in large

screen from June 15th to Nov 12th Up to

July 17th the large screen was the old clock screen

formerly used; after that date the lake screen

with a new door fitted to it was fixed up

close along side of the clock screen and used.

Up to June 14th and after Nov 12th Mins 138533

& 138545 were used in small screens on Ladder Stand No 2.

On Dec 7th the Tower Box was modified to suit a new thermometer. The tube extends inside so that the temp is read inside the top story of tower. It has been in occasional use.

The usual 5 inch raingauges, rain or snow pattern according to circumstances has been used - The Campbell-Stokes Sunshine Recorder has been in use through out the year - The Sunshine is now entered to Mean Local Time, instead of as formerly (up to 31 Dec 1890) to Mean Greenwich Time -

Black Bull in vacuo Max No 186 was in use when possible, but was sent toadie & Widdien for repairs on Nov 14th the outer jacket being cracked, and has ~~not yet~~ been returned to the Low Level Observatory where it is being tested. Black Bull No 484108 common thermometer in vacuo was also in use for hourly readings in summer -

The Direction and Force of the Wind has been estimated as usual on the roof on the hourly observations, and the Robinson HC Anemometer has been in use when practicable. The Crystal Direction Anemometer has not been used. The clock of the latter is used as Standard S.M.T. clock in office -

The Rainband observations have been continued with a Direct vision Spectroscope - From Nov 27th to Dec 22nd the instrument was away being repaired -

Several Photographs have been taken -

The Stephanome has been employed as usual for measuring flurries, snows etc.

The Depth of Snow was taken at post A as before.

The Barograph (Richard) has been in use all the year. The Gage tests have been discontinued except as extra observations in special states of the weather since November.

Except as regards the rainfall the observations have not been interrupted during the year: on Dec 9th at 20^h and on Dec 28th at 21^h & 22^h the temp. readings were got from the tower screen by interpolation-correction.

The Large Dust counter in tower has been used throughout the year, three-hourly readings being taken for several months. The Small one is at the Low Level Observatory.

The telegraph instrument has worked well throughout the year. Since April 5th the Low Level observations have been included in the Daily Reports sent to Newspapers.

The Staff of the Observatory consists of R. T. Ormond A. Rankin, J. Miller & up to January 10th S. Nisbet. From January 27 to Sept 23rd G. Day and since Sept 29th G. Robertson. Mr C. E. Gray acted as telegraphist and observer, and Messrs R. C. Mossman P. F. Gillies, C. Stewart, H. F. Rankin, ^{as. Dup-dale} J. Dunlay & several various members of the staff.

1892.

41

January 1st Thermometer Box shifted at 0^h-25^m-
Dy 535541 Wet 535542 and Min 138533 put out.
Put one stage higher on ladder stand.

January 2nd Very damp feel in the fog in morning
though ~~the~~ the temp. was only 25° or 26°.

January 4th Thermometer Box shifted at 9^h-40^m-
Dy 192677 Wet 192672 Min 138545 put out.
Height above snow not altered.

January 5th Frost in morning with temp. about 28°.

January 6th At 2^h a light was seen to N^W through
thin fog possible Auroral.

January 7th Thermometer Box shifted at 12^h-25^m-
Dy 535541 Wet 535542 Min 138533 put out -
Height above snow not altered -

Top clear from Noon to 15^h No fog in valleys but cum. fog
on hills especially to W^W very clear to E^W

January 8th When clearing the tower chimney
this afternoon one of the cups was broken off
the Robinson Anemometer - the arm broke at
about half length.

January 9th Top clear at times during the day, but fog on hills round and passing over Ben Xins also always. Very heavy N^e squalls at night.

January 10th Day clear after 18^h but fog & sand bling over. Lunar Corona seen all night - Thermometer Box shifted at 19^h 20 - Dry 192677 : Wet 192672 : and Min 138545 put out. Height above snow not altered.

January 11th Fog among hills to W and N in early morning. At 12^h and at 14^h there was mist though the temps were 18° 9 and 20° 7 respectively.

January 12th Thermometer Box shifted at 10^h 15^m Dry 535541 : Wet 535542 : Min 138533 put out. Height above snow not altered - From 9^h to 14^h the wet bulb read almost constantly higher than the dry as there was thin fog blowing over.

Glow & fog low seen at 10^h faint inner fog low - Top clear and air dry from 14^h onwards : no fog in valleys. The sun set at 16^h 10^m into a cloud bank - Lunar Corona at 19^h and faint Lunar Halo at 20^h and 23^h - Streaks of cirrus all evening lying WSW to ENE : motion apparently from W. There are wreaths of snow about 15 feet deep lying between Hotel and first gorge : the snow is up to the top of the post at first gorge.

January 13th Air very dry till 4^h after which detached fog formed over hills round and from 6^h onwards covered

Ben Nevis also - Fog-crystals in morning horn in column -

January 15th

Thermometer Box shifted at 4^h 17^m Dry 192677 : Wet 192672 - and Min 138545 put out. Height above snow not altered - Top clear and sky cloudless except for a little cirrus from 4^h to 13^h but haze and detached fog in valleys - Fog all afternoon but sky apparently clear above -

Today Mr J. Miller and Macewan (hired man) tried to ascend the hill : they had to turn at the Big Bridge (1200 feet) the snow being impassible -

January 16th

Strong ESE wind all day rising to stormy gale at night. Sky clear but fog blowing over the hill most of the day Lunar Corona seen frequently on this fog & sand - haze and detached cum-fog among hills round when visible -

January 17th

while taking the 5^h reading the door of thermometer box was blown off its hinges - The box was tied up to keep the door on and was not read again till 9^h when the hinge was mended - The Tower Thermometer readings were used to fill the gap & were also used at 23^h & 2 midn.

January 18th

Tower Thermometer used at 1^h 2^h and 3^h Today Mr J. Miller returned to the Observatory and Mr A. Drysdale went down - The 15^h reading

1892

44

was not taken till 15^h 10^m as both McDonald and Mr Dysdale went down to the Plateau of Storms to meet Mr Miller - No corrections applied to readings -
Very thick fog all day -

January 19th

Top cleared at 14^h and was clear at intervals all afternoon - Fog over the hills below and a little cirrus on sky - Thermometer Box shifted at 14^h 15^m Dry 535541 = Wet 535542 and Min 138533 put out - Height alone snow not altered -

January 22nd

at 4^h 5^h and 6^h there was distinct mist not fog, though the temp was only about 24°. The moon was dimly visible through it - Thermometer Box shifted at 13^h 15^m Dry 192677 = Wet 192672 and Min 138545 put out - Height alone snow not altered -
 Rain fell while the temp was above 32° and showers of hard icy snow for the rest of the night.

January 23rd

Lunar corona seen at 5^h Thermometer Box shifted at 13^h 15^m Dry 192677 = Wet 192672 and Min 138545 put out - Height alone snow not altered -
 At 16^h the temp rose above 32° for the first time this month and rain fell for 3 hours. The snow that followed was hard & icy -

January 24th Showers of dry hard small snow all day -

January 25th Snow similar to yesterday fell at intervals - Both days there has been considerable drift making measurements of the fall doubtful -

January 26th Top clear 14^h to 17^h but detached fog among hills, thickest to S. The top joint joint was put on Ladder Stand No 2. after 15^h From 15^h 10^m to 15^h 25^m the thermometer box was dismounted - it was put up in the same position and with the same thermometers as before -

January 27th The snow that fell in afternoon, after the temp had fallen and the rain ceased, was small, hard and dry -

January 29th Heavy rain all day till 23^h Strong back swirl of wind at 23^h & not making the direction very difficult to determine -

No strangers climbed Ben Nevis in January and the only ascent made by Observ^{er} was on the 18th

February 1st Very squally winds in afternoon, making the direction difficult to determine - at some times it may have been anything between N and SW -

February 2nd During the forenoon the top was deeply covered with soft snow which drifted a good deal - At 16^h the top was free of fog and it was noticed that the Northw^{est} wind was blowing the drift from the face of the cliff several hundred feet straight up - By midnight several

places near the Observatory were blown clear & the old hard surface exposed -

February 3^d Thermometer Box shifted at 17^h 25^m -
Dry 535541 = Wet 535542 and Min 138533 put out.
Height above snow not altered. Sky clear in evening occasionally but always thin fog blowing over. Today Wm Stewart came up & stayed over night at the Observatory -

February 5th Telegraph instrument moved by Earth-cumens at 2^h 35^m and again more faintly at 3^h 1^m. Heavy snow all day and some slight drift -

February 7th The 16th observation was 4 minutes late no corrections applied to readings -

February 8th sky began to clear above at 20^h & from 21^h onward the top was free of fog - at first there was no fog on hills but at midnight fog had gathered on the hills to S^W. The clearing was accompanied by a rise in the wind force from 1 or less to 3 or more - Thermometer Box shifted at 22^h 27^m Dry 192677 Wet 192672 and Min 138545 put out. Put one stage higher on ladder stand - it is now on the first ~~step~~ step of the upper part of stand -

February 9th Just at the top of the cloud layer all day - when above it ~~it was~~ during the night

temp. rose, but in the day temp rose to $40^{\circ}1$ even though mist was on the hill top. When clear the wind was usually stronger than when mist was on.

February 10th In afternoon one of the rain gauges was found to be leaky & some observations are lost.

February 11th Today two new rain gauges were brought up.

February 12th The 11^h observation was not taken till 14^h 2^m. Some rainfall readings were lost owing to a leak in one of the old gauges. Mist and drizzling rain till 21^h clear sky but mist or fog blowing over till midnight.

February 13th Top clear but detached patches of fog among hills and sky mostly cloudy till 16^h, fog on summit the rest of the day. Two snow buntings seen at cliff at 8^h the first this winter.

February 15th Thin fog till 6^h sky cloudy with cirrus and cirro-stratus moving from NE till 10^h pretty clear or only cirrus after that. Patches of cum-fog on hill tops round most of the day. Faint Solar Halo at 11^h. Thermometer Base shifted at 9^h 18^m.

Dry 192677 : Wet 192672 and Min 138545 put out. Height above snow not altered. At 11^h it was found that the hinges of the box had given way & the door was lying open: it was repaired at once without removing the box.

1892

48

February 16th Fog in patches on hills till 4^h, and on Ben Nevis also most of the day after that, except for a few breaks in forenoon, during which some sunshine was registered - In a break at 6^h a double lunar corona was seen and at 9^h a Solar Fog bow -

February 18th

Fog on hills round and occasionally blowing over Ben Nevis also till 6^h - fog only on hills to E^h and no low fog in valleys till 16^h clear except for a bank of Stratus to W^h after that - Aurora seen 22^h to Mdt single arch low down - Today the snow at the First gorge was measured and found to be overhanging 251 inches (say 21 feet) -

February 19th Aurora continued visible till 2^h and was also seen faintly at 21^h and Mdt - Sky cloudless except for occasional cirrus all day but thin fog blowing over the hill top from 6^h to 10^h No fog in valleys but patches of cumulus and cum-fog alone & on hills round - The sun set at 17^h 39^m -

February 20th Bright meteor seen at WSW horizon at 1^h 3^m estimated about as bright as Venus - ~~at 2^h~~ at 14^h a portion of halo seen above Sun - Detached fog seen on hills round most of the forenoon and blowing over Ben Nevis also after 16^h -

February 22nd at 7^h the tip was clear occasionally and the horizon from S round by W to N was brightly coloured - From S to SW the predominant colour was

Orange, from SW to W Reddish Green, from W to NW pale Blue and from NW to N dark Blue -

February 23^d Stormy SE gale most of the day. Top clear 10^h to 15^h but fog on hills frequently blowing over and dark haze in the valleys. At 16^h the Sun gleaming through the fog was occasionally - not always - a bright green -

February 25th Thermometer Box shifted at 7^h 15^m
 Dz 535541 Wet 535542 and Min 138533 frost on.
 Height above snow not altered.
 The Sun set at 17^h 50^m -

February 26th at 10^h a snow bunting was seen at the door of Observatory -

February 27th Haze in valleys & round horizon all day - Flat stratus fog on Moor of Rannoch and patches of cum. fog among the haze in afternoon - Aurora seen 22^h No arch but streamers to about 20° altitude rising from behind the haze and continually shifting. It was not seen again all night - Sky almost cloudless all day -

February 29th Thin fog & low clouds all day but clear at Midnight when Aurora was seen single arch no streamers - The Midnight observation was 8 minutes late: no collections applied to readings -

March 1st Thermometer Box shifted at 1^h 17^m

Dry 192677 = Wet 192672 and Min 138545 put out - Height above snow not altered -

Aurora seen at 1^h 2^h and 3^h at 1^h it was a single arch without streamers, but at 2^h there was no arch but shifting streamers to about 45° altitude -

March 3rd The fog crystals that formed on the 2nd and 3rd were white, dry & quite easily removed -

March 4th Fog cleared at about 10^h but left thick haze in valleys all round - it seemed to stand up to about 5000 feet height and the air was saturated most of the day - No unusual colours in sky - Sun set at 18^h 6^m Earth shadow well seen -

An aurora was seen at 21^h Single arch no streamers - It was again seen at 22^h but at 23^h & midnight the Moon was so far West as to obscure its light - Thermometer Box

shifted at 11^h 10^m Dry 535541 = Wet 535542 and Min 138533 put out. Height above snow not altered -

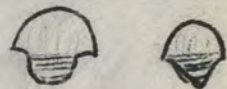
March 5th Aurora was seen at 3^h - Single arch, no streamers Thick haze in valleys all day up to about 4000 feet. Thin fog occasionally blowing over Ben Nevis. ~~also~~ Sun rose a few minutes (say 5) before 7^h and set at 18^h 7^m Sky cloudless all day except a streak of cirrus low down

1892.

51

to westward at 18^h & 19^h

March 6th clear sky but haze below and thin fog blowing over the hill top till 4^h - after that fog or cloudy sky with huge & fog all round - at 7^h the sun was seen coming up above the low lying haze & fog, it was distorted into shapes like sketches, the lower smaller part being in the haze.



March 8th Sky cloudless from 5^h to 7^h but detached fog in the valleys & on hill sides all round - at 15^h star shaped crystals of snow were falling -

March 9th At 7^h the rain gauge was found undercut and lying over on its side and full of dust -

March 10th At 1^h the rain gauge was found undercut & lying over on its side - During last night and this morning almost all the last fall of snow has been blown off, ~~leaving~~ leaving only a few drifts - Top clear occasionally but fog always blowing over at short intervals and air saturated -

March 11th Up to 9^h thin fog was on the hill top but after that it gradually cleared and after 17^h was cloudless. Fog hung about the hills till 19^h after that there was only a little haze to the E^W but no fog in valleys -

1892

52

Thermometer Base shifted at 15^h 15^m Dy 192677 :
 Wet 192672 and min 138545 put out, Height alone
 snow not altered - Today Mr R. E. Mossan
 came up to the Observatory : he was accompanied
 by Wm. Stewart and the first stranger of the year
 Mr May of South Africa who stayed overnight.

March 12^a at 1^h the sky was about half covered
 with cirrus in long strips radiating from a
 point about 10° south of the zenith - The Moon
 was shining brightly also near the zenith - The
 cirrus strips were tinged with red to the ENE
 and WSW, the colour flushed on & off them
 like the pulsations of an aurora - No Halo
 or Corona surrounded the moon - After 4^h sky was
 cloudless again and continued so till 13^h
 but detached fog lay among valleys almost
 all day and rose to height of Ben Davis
 about noon and enveloping summit at
 times till 15^h almost continuous fog since
 in very day in forenoon. Solar Halo at 19^h
 and a Solar Corona at 23^h. Today Mr Thord
 and Mr May went down the hill.

March 13th

Overcast sky till noon fog since with
 slight showers of snow. Solar Halo at 10^h.

1892

53

March 14th

Summit clear after 17^h but sky a little cloudy and fog among hills to E till 21^h sky cloudless since. Thin haze in valleys below

March 15th

Cloudless and very fine all day except at 13^h+14^h when thin fog was blowing over summit Haze all round below and some detached Cumulus fog on hills to S^h. Air dry at times throughout the day but very dry this evening lowest humidity 15 per cent at 22^h. Very light NE air or Calm till 19^h N^h air since. After 22^h a luminous light was observed in the sky to N^h extending from NW to NE and to about 45° altitude. probably an aurora? but indistinct owing to bright moon light.

March 16

Sky almost cloudless till 9^h overcast with Cirro Cumulus till 13^h fog and mist since. Air very dry in forenoon. lowest humidity 12 at 1^h. Rain began to fall at 18^h with a Temperature of 30.5 and ice forming on all exposed surfaces but Temperature has been steadily rising since. Haze all round below in early morning. A Solar Halo of 45° was seen at 11^h

1892

54

March 17th

Mist and fog all day with heavy falls of rain in forenoon and occasional breaks in the fog in the afternoon. Temperature above the freezing point all day. Distant thunder heard at 9^h 20^m and flashes of lightning seen at 10^h 30^m

March 18th

Moderate gale from SE all afternoon and continued till midnight. Clear from 14^h but sky nearly overcast with cumulo-str & cirro-str till 20^h fog since. Roof of Snow Porch came down to-day and blocked low door for a few hours.

March 19th

Strong SE wind all day increasing to a gale in the evening. Sky clear after 6^h but fog on hills to S and frequently blowing over summit in the afternoon and dark haze in the valleys all round. Sky a little cloudy in forenoon but cloudless after 17^h. An aurora single arch but no streamers was seen at 23^h + midnight

March 20th

The SE wind continued till 12^h and gradually fell in force. It veered to the SSW after 18^h. Sky cloudless till 10^h variable amounts to-

1892

55

of Cir + Cir-St on sky till 20th fog on summit
at 21st cloudless again since. Fog on hills
to E + S most of the day and passing
over Ben Nevis frequently. Haze all round
the horizon all day. An Aurora at 1st
and a Halo with Mocksuns at 16th 55ⁱⁿ
seen from Plateau of Storms

March 21st

Light SW^{ly} and W^{ly} winds till 8th veering to
N and NE^{ly} since rather squally. Sky cloudless
till 4th fog since with occasional breaks in
the afternoon. Barometer rising steadily
Slight showers of snow throughout the day

March 22nd

Fog or overcast sky all day. Slight
showers of snow in the forenoon.

Thermometer Bot shifted 7.15 by 535541
Wet 535542 And Min 138533 put out
Height above snow not altered

Three strangers climbed Ben Nevis today

March 23rd

Silver Frost forming all morning till 5th
mist + fog all day with occasional breaks till
19th Sky cloudless since but fog below all round
A Solar Fog-bow seen at 11th Thermometer
Bot shifted at 7.15^{hr} by 192677 Wet 192672 + Min 138533
put out. A mouse was seen in snow —

Porch at 23rd

1892

56

March 24th

Silver Frost all day except at 1st. Sky cloudless till 5th but mist lay over hills all round and passing over Summit till 5th mist since. Sky cloudless again at 21st and mist all round and very thin mist passing over Ben Nevis. Temperature fell suddenly between 4th + 5th from 31° 8' to 26° 1'. An Aurora seen at 21st 23rd + midnight faint streamers were seen at 23rd.

March 25th

Sky cloudless and thin mist passing over Summit till 5th continuous mist or fog since. The Silver Frost continued till 15th. Showers of drizzling rain and snow all day. An Aurora with streamers seen at 1st 3rd + 4th.

March 26th

Fog or overcast sky all day and thin glaucous in the evening. Temperature falling pretty quickly since 6th. Daily range 22° 0' lowest hourly reading 7° 0' at midt. Continuous snow all day. Thermometer Box shifted at 9th 20th by 535541 wt 535542 and min 138545 put out. Height above snow 55 inches. A Bunting seen in snow patch today.

1892

57

March 27th

Fog and overcast sky till 22nd cloudless since. Temperature very low all day. Lowest is the coldest experienced at the Observatory. Mean Temperature 8° and minimum registered 2°7'. Air very clear to W & S in forenoon. Very light showers of snow fell during the day. Passing Showers Clouds to N & W in the afternoon. An Aurora single Arch at 21st 23rd and midnight but no streamers.

A mouse seen in Snow Pouch at 1st

March 28th

Fog came on at 4th with occasional breaks till 18th cloudless since. Barometer rising briskly since 5th and Temperature very low in the evening. Air dry in early morning and in the evening. Lowest humidity 27 at midnight. An Aurora seen at 1st 2nd & 3rd and at 21st 22nd 13th and midn. At 23rd there was three arches. The 1st and 2nd arches were well defined but the 3rd or higher arch was not so well defined but

1892

58

was distinctly visible: at midt there
~~had~~ two arches the lower one being
 very bright. The streamers were very
 faint

March 29th

Sky cloudless except for a
 little Cirro-Str till 15th Fog since. Dark
 haze to W + S near horizon. Air very
 dry all forenoon lowest Humidity
 21 per cent at 8th An Aurora with
 single arch and faint streamers
 at 1th 2th + 3th and a Solar Halo at
 8th + 13th. Today W^m Stewart came up
 accompanied by Mr McCrarch
 Customs Officer Fort William

March 30th

Fog on Summit till 10th sky clear
 since except for some thin Cirrus and
 Cirro-Str till 23th since then a ^{cumulus} ~~little~~ has
 appeared and sky apparently cloudless
 above. Light haze among valleys all
 afternoon. Part of an Aurora seen
 at midnight.

Heather burning has been seen in
 various directions today

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March 31st

59

Summit clear and air dry all day lowest humidity 43 at 2nd. Sky partly covered with Cumulus till 4th and Cirrus and Cirro-Str since. Variable W^s breezes all day rather squally this evening. Hand packed Stratus fog on hills to W + N almost all day and haze among valleys.

Aurora seen at 1st + 2nd and a Halo at 17th 40th. Dry & Wet Bulbs only shifted at 12th 15th by 192677 wet 192672 put out.

Five strangers visited the Observatory during March April 1st

Barometer very steady and Temperature well above the freezing point all day. Highest reading 40° 8 at 23rd. Air very dry all day lowest humidity 38 at 16th + 20th. Sky nearly overcast all forenoon clearing in the afternoon and cloudless this evening. Thick dark haze below all around. Aurora at 22nd + 23rd
April 2nd

Sky cloudless till 8th but somewhat cloudy since. Thick haze all around below all day but thinning towards

1892

60

Midnight. Temperature very high
and air dry all day. A Solar Halo
seen at 9^h till 17^h and a Lunar Halo
with mock moons at midnight
At 19^h 10^m the sun was seen setting
in the haze. Into shapes
like sketches. The lower part
being in the haze



April 3rd

Temperature above 40° almost all
day and air very dry. Light westerly
breezes till 10 am but backing to SE and
gusting since. Sky nearly overcast
all day with Cirro-Cum + cirro-str moving
from the SW. Very thick haze all round
Lunar Halos at 1^h 20^h 23^h & midnight
Mock moons seen at 1^h & 20^h.

April 4th

Sky nearly overcast with Cirro-str and Cum-str
and thick haze and fog all round below till 15^h
Fog or mist since. Temperature high and
stagnant and air dry till 14^h but falling
slowly till 19^h and rising again since
Southerly breeze till 15^h ^{to} being South West and
and westerly since

1891

April 5th

61

Continuous mist and slight drizzle till 20th sky cloudless or nearly so till 22th but detached cum fog on hills all round and cumulo-cirrus near horizon to S'W + N. Thin mist since: A double corona at 23th

April 6th

Mist or overcast sky all day and loose fog among hills when summit was clear air slightly dry at times in the forenoon light showers of rain in the afternoon a solar halo a 15th 10th

April 7th

Sky clear but thin fog blowing over summit all day except at 23th when Ben Nevis was clear but thin haze all round and fog among valleys air slightly dry at 23th + midnight.

A solar corona at 11th and sunar coronae at 20th 21th and 22th: depth of snow at 15th 60 inches: thermometer lowered one step at 16.10. Height above snow 43 inches

April 8th

Fog till 4th summit clear since but sky partly covered with cum till 7th cloudless since except for a little cirrus at times detached cum above horizon to E & SE —

1892

62

- and some Cirrus near horizon to W+N in the afternoon. Haze in valleys all round all day. a little fog over hills to SE at midnight. Temperature high all day and air dry since 6th: Hoar frost on Thermometer Box and Office roof during the night: Aurora with single arch seen from 22nd till midnight
April 9th

Sky cloudless all day but a little fog over hills to SE till 5th no fog after that below: Thick haze all round during the day but thinning somewhat in the evening: Cirrus near horizon to W+N at 20th + 21st: Air dry all day
April 10th

Temperature high and weather very fine. Light SE³ winds till 20th N⁴ winds since Sky cloudless but a little Cirrus above the horizon to W+S in the afternoon: Light haze in valleys all day:
Today two visitors arrived at Observatory
April 11th

Temperature high and air dry all day Sky cloudless except for a little Cirro-Cumulus in the afternoon. Cum fog over hills to NE at 22nd and at 23rd there was fog on hills to N.E + SE and at midn. fog on hills all round except from SSW to WSW. Thick haze among valleys all day

1892

63

April 12th

Fog or heavily overcast sky all day
 Barometer falling all day rather quickly at
 times and jumping after 20th Temperature
 falling all day. Lowest reading 12.6 at mid
 night N^W winds or Calm till 15th but increasing
 in force and becoming rather squally
 since. Slight showers of snow have
 fallen throughout the day and drifted
 a little in the afternoon
 Door of Thermometer Box found open
 at the 20th observation

April 13th

Summit clear frequently throughout
 the day but sky overcast or nearly so. and
 occasional sunny intervals. Temperature
 very low all day. Lowest reading 12.2
 at midn. Squally N + NE^W winds all day
 with heavy showers of snow and hail at
 intervals in the afternoon and evening
 Snow down to Sea level

April 14th

Temperature very low all day and air
 saturated till 9th dry at times since. Lowest
 Humidity 51 at 16th. Light N + NE^W breezes with
 slight showers of snow in the afternoon
 Sky clear but fog on Summit at times till
 18th but clearing again since. Fog hanging
 about hills all day.

April 15th

64

Sky almost cloudless till 9^h when Cumulus began to form all round below and to rise above level of summit. This cumulus developed into shower clouds in all directions, and at the 21^h showers of snow fell on the summit at intervals. During the evening the clouds were steadily sinking, and after 21^h they were all below the level of summit, leaving a cloudless sky above.

Very light variable winds or calm all day. Air dry from 3^h till 13^h and at 14^h - lowest humidity 54 per cent.

Today Mr. Rankin arrived at the Observatory and Mr. Massman went down.

Mr Jackson Telegraph line man inspected the plant here and found all right.

Mr and Mrs. J. S. Omond visited the Observatory today - Mrs Omond being the first lady up this year.

April 16th

Weather very much like yesterday, as regards clouds - fog being below in early morning. Cumulus forming and rising in forenoon and developing into shower clouds during the afternoon and falling below summit after 21^h leaving a cloudless sky above.

Very light N or NE winds. at 12^h the humidity suddenly fell to 35%, the only value below 70% today.

April 17th

65

Sky almost cloudless till 6th: fog till 9th: Cloudy with cumulus, which developed into shower-clouds, till 21st: fog till midnight.

Ground fog in early morning on Mtn of Rancho. Passing showers of snow in all directions in evening and at times falling on summit. Light N. and NE winds. Air Saturated or nearly so all day.

April 18th

Fog off and on summit till 9 am: Cloudy during the rest of the day with cumulus from which showers fell at times in evening. Air dry from noon till 18th ~~pm~~ and at 21st the lowest humidity being 55 at 14th.

April 19th

Sky cloudless or almost so till 9th but air remained saturated. Sky cloudy or overcast till 18th with Cir-s on which a bright Halo was seen, and after 15th with hard Cir-s or Stripes. Fog came on at 19th and snow fell during the rest of the day.

Haze crept steadily northwards in forenoon being first seen at 5th at SE and S on Horizon and by 12th it was all around.

Steady southerly winds from 3th till 19th veering to W. thereafter.

Radiating Points of a little Cirrus that was seen at 5th then NNW and SSE.

Today Samuel Weir arrived at the Observatory and George Robertson went away.

1892 April 20th

66

Mist or fog till 13^h and after 19^h Sky cloudy in afternoon with Cumulus and Cirrostratus also seen at 15^h and 16^h.
Showers of snow in morning and again at night.

April 21st

Fog or mist all day, with heavy rains in evening.

April 22nd

Fog or mist with showers of snow all day.

April 23rd

Fog and showers of snow all day.
St Elmo's Fire was heard and felt by observer when on roof at 7^h 30^m.

April 24th

Fog, with short breaks in evening, and showers of snow all day.

April 26th

Fog till 8^h. Summit clear for the rest of the day except for a little passing fog at 21^h. Sky about half clouded with Cumulus from which showers were seen falling in various directions in evening but none on summit.
Air very clear today "visibility" 3 to 4.

Thermometer box was changed at 10:20^h -
Dry 535541, wet 535542 and min. 138545 were put out - heights above snow not changed.

April 27th

Fog and showers of snow all day

April 28th

Temperature very low all day - mean 20.5.
Fog on summit or passing till 15^h. Sky clearing thereafter, and cloudless at 23^h and midnight.
Buckets were taken out by the tower today.

April 29th

67

Sky almost cloudless all forenoon: but temperature very low. being below 20° till 11th ~~and~~
Sky overcast with Cumulus in afternoon (till 16th)
and fog on Summit at night, with snow
falling after 19th.

Aurora seen at 1th and 2th.

April 30th

Snow falling most of the day.

May 1st

Aurora seen at midst. - large waves of
light rising from a bright single arch to
near the Zenith. The moon was seen through
the arch.

May 2nd

Aurora continued pretty bright till 2th.
at 1th it filled the whole Nth sky up to
Zenith from WSW to ENE.

Stage below in forenoon, in which Cum-fog
formed and gradually rose and enveloped the
Summit in afternoon, but fell again after 16th
and continued at 4000ft. till midst.

Aurora seen at 23th and midst.

May 3rd

Aurora seen at 2th and again at night.
Almost Cloudless till 5th and after 19th but
Cum. Sand. or fog passing during the day.
Air very dry before the fog rose in
early morning.

May 4th

Faint Aurora seen at 1th and 23th.

1892

Sky cloudless and air dry almost all day, but 68
fog on hills below chiefly to N. & E.

May 5th

Fog all round below in forenoon; but broke
up in afternoon.

Sky pretty clear all day. Air very dry
at night the humidity at 21st being 18% and at
23rd 19%.

Lunar Halo and Aurora seen at 23rd 4th.

May 6th

Aurora seen at 1st and 23rd and a Lunar
Corona at 1st and 2nd.

Some Cirrus on sky till 5th; almost cloudless
during the rest of the day.

Thick haze all round below.

May 7th

Fog rolled up from W. at 1st and 2nd and
was all around below 3000 ft at 3rd; thereafter
rising and enveloping the Summit for the
rest of the day.

Drizzling rain falling and ice forming
on surfaces in forenoon: Snow
falling at night.

May 8th

Summit cleared after 1st and remained clear
till after 14th when fog came on again and
snow began to fall at 18th.

Thermometer was changed at 9th 30^m by 1926 72 W. &
1926 77 and min 138533 were put out.

1892

69

May 9th

Fog cleared off after 4th. Cum on sky till 3 pm. Cloudless thereafter.

Thick haze below all day.
Decided rise in temperature today.

May 10th

Thick haze all around all day. Almost cloudless in forenoon; some Cumulus on sky in afternoon.

The haze today was very thick and rose high above the summit of Ben.

May 11th

Thick haze all round today.

Air dry all day: Cir-s moving from SW on sky, on which in the forenoon a Solar Halo was visible. A Lunar Halo was seen at 1st.

May 12th

Cir-s on sky in forenoon: and cumulus in afternoon which thickened and developed into nimbus by 19th. Fog on at 21st.

Thick haze below all day.
A Lunar halo was seen at 1st and a Solar Halo at 5th, 6th and 11th.

May 13th

Mist and rain all day, with the temperature about 40°.

May 14th

Fall of temperature with heavy rain in early morning. Snow during the day.

1892 May 15th

70

Mist. with showers of hail rain and snow.
and squally winds. all day.

May 16th

Fog with showers of hail and snow all
day. 1st Elms Fire was seen at 1st

May 17th

Fog and showers of snow in forenoon.
Summit clear in afternoon but sky cloudy.

May 18th

(A large rat was seen on the roof at 1st)

May 19th

Fog and showers of snow during the day,
and rain at night.

May 20th

Mist or fog and showers of drizzling rain
or snow till 17th. Summit clear till 22nd. fog
thereafter.

A mock sun was seen at 20th

May 21st

Fog and showers all day.

~~May 21st~~
May 22nd

Summit clear from 3rd till 17th. Sky
cloudy or overcast, with cir-c in forenoon and
heavy cum and nimbus in afternoon. which
gradually lowered and thickened and enveloped the
summit at and after 18th.

The air was exceptionally clear, but not
very dry in forenoon. Snow fell at night.
Bulls 192677 & 192672 taken in at 11th & 538541 & 538322 put out.

1892

May 23rd

71

Mist or fog almost all day. at 5^h
there was ice forming to windward of objects
and at the time the cloud was fog not mist.

May 24th

Mist or fog all day except at 18^h and 19^h
George Robertson returned to the Observatory
today and Samuel Weir left.

May 25th

Mist till 21^h cloudless thereafter, but broken
fog all round below.

Bright Spectrum colours in N^o sky at
23^h. and mist.

May 26th

Fog below in early morning, which gradually
rose and at 8^h and 9^h enveloped the Summit
and thereafter formed Cumulus clouds
overhead till 21^h. when it again sank
to Summit.

Thick haze in afternoon — up to cloud.

May 27th

Mist all day. Rain in forenoon.

May 28th

Summit cleared at 4^h and except for
some fog at 9^h and 10^h remained clear till 14^h
when mist and heavy rain with ESE
wind came on rather suddenly.
Solar Halo seen at 5^h and 6^h.

1892

May 29^d

72

Mist all day with showers of rain
and sleet.

May 30th

Mist and showers of rain all day.
St Elmos Fire was seen at 20th

May 31st

Mist or Over-cast all day.
Showers of rain in forenoon and slight
drizzle in evening.

June 1st

Mist all day, with rain in forenoon and
showers of rain sleet and hail in evening.

(Today a horse was brought right up to the
Observatory for the first time this year.)

June 2nd

Top clear at times till 6th. Mist for the
rest of the day. Snow fall in forenoon
and rain in afternoon.

Silver Frost was forming at night.

A Solar Halo was seen at 5th

June 3rd

Fog or mist till 9th. Over-cast with Cum-s, and
fog all round below till 2-1th; Sky Clearing and fog
sinking thereafter.

June 4th

Almost Cloudless all forenoon, but unbroken fog
all round below to 4000ft.

1892

At 13^h and 14^h cir-s formed above and passed into Str-cir and fell rather quickly; at the same time the fog below gradually dispersed. At 15^h the Str-cir Stratum fell to and enveloped Summit. Mist for the rest of the day.

Temperature pretty high all day - mean 41.8. After the mist obstruction the thermometer lens was lowered one step on ladder stand.

June 7th

Clearing all forenoon. Almost cloudless and temperature over 50° all afternoon. Broken fog below all day.

June 8th

Fog on Summit from 5^h till 8^h and at 20" and 21" Cloudy during the rest of the day except after 22" when the sky cleared.

Fog all round below in forenoon which gradually dispersed giving place to thick haze in afternoon.

June 9th

Summit clear except for thin fog passing for a few hours in forenoon.

Thick haze all round below.

The "maximum" Black Bull was brought up to Observ^{ry} today: and it was put out on a bracket stand on Ladder Stand N^o 1.

June 10th

At 5^h today fog was observed rolling up from SE and E. At 6^h it was continuous all round below 3000 ft. By 9^h it rose and enveloped Summit for the rest of the day. Rain began to fall after 15^h with a moderate SE breeze. The temperature being below 32° ice formed from rain at night.

1892

At 8 am the temperature was 47.0, at 13" it was 37.4 and at midnight 35.3. — a fall of 16.7 in 16 hours

After 21" today a set of Thermometers was put out in Summer Box N^o 2. and readings were taken of both sets. 192677 and 192672 in big box and 535541 and 535542 in small box in ladder stand till midnight when the thermometers were changed, 535541 and 535542 being put in large box

June 11th

The readings taken of big 535541 and small 535542 in large box N^o 2. are entered on daily sheet. Readings of instruments in small box in ladder stand were discontinued after 2nd.

Mist and fog with showers of snow in morning. Summit clear at times in afternoon

June 12th

Fog all day, except at noon, Snow falling at, and almost continuously after 6th

St Elmo's Fire was heard at 15th

June 13th

Fog till 7th Clear thereafter but sky cloudy or overcast.

Air very clear - visibility 3 to 4 - when top was clear of fog.

Slight passing showers of snow during the day.

June 14th

Clear till noon. Fog at and after 13th

Air dry all forenoon - at 8th the humidity fell to 47%

June 15th

Temperature rose in forenoon from 30.8 at 3rd to 37.0 at noon and remained pretty steady during the rest of the day. Rain fell all afternoon.

1892 June 16th

75

Fog in early morning, and again at night.
Cloudy with gleams of sunshine during the day. Temperature fell again below 32° today;
A Foghorn was seen at 4th

June 17th

Temperature low; and showers of snow all day.
Gleams of sunshine in afternoon.

June 18th

Summit clearing after 17th: but fog on hills below.

Very cold all day - showers of snow in the middle of the day.

June 19th

Mist or fog all day. Showers of sleet and snow in evening.

June 20th

Mist till 8th. Summit clear and air dry during the rest of the day.

Showers of sleet and snow in morning; and passing showers seen all round in evening.

June 21st

Summit clear and air dry all day.

Detached fog below ~~in~~ in forenoon; and thick haze at night.

June 22nd

Fog or cloudy sky till 19th. Almost cloudless thereafter.

Thick haze below in early morning and again at night.

1892 June 23rd

76

Summit clear most of the day. Sky cloudy in forenoon and overcast or almost so in afternoon. Thick haze below in morning almost clear all day.

June 24th

Mist or fog till 8th: slightly cloudy till 22nd.
Mist thereafter.
Air very clear in evening.

June 25th

Mist all day: and heavy rain from 10th till midnight. Strong SE wind in afternoon.

June 26th

Mist and heavy rain all day. The total rainfall for today was 1.578 inch.

June 27th

Mist and rain all day. Temperature falling at night.

June 28th

Fog till 10th. Clear for the rest of the day, but some haze below and Cum. and Cir-s on sky.

June 29th

Haze and fog all round in forenoon. Clearing in evening. and sky almost cloudless at night.
This evening the haze rose in a layer clear of hills.

June 30th

Mist all day, and rain in afternoon

July 1st

Mist with drizzling rain, and showers of snow and sleet during the day. Clearing at night.

July 2nd

Fog below till 3 am; Mist on Summit for rest of day. and heavy rain after 8^h.
The amount measured for how ending 20^h was 0.352 inch.

July 3rd

Mist and heavy rain all day.

July 4th

Summit clear in middle of day. but mist and rain both in early morning and at night.

July 5th

Mist all day, with heavy rain in forenoon, and showers of hail, snow and sleet in evening.

Decided fall in temperature today from over 40° in morning to 32.7 at mid!

July 6th

Slight showers of snow in morning. and heavy rain in afternoon.

Today Mr. J. I. Craig and Saml Weir arrived at the Observatory: and George Robertson left.

1892

78

July 7th ^{hail or snow} Mist and showers of rain all day.
Today Mr. James Miller left the Observatory.

July 8th Mist all day. showers of snow and sleet in forenoon and rain at night.
Bright display of St. Elmo's Fire seen at 8 1/2th.
A little snow lay on summit in forenoon

July 9th Mist, and drizzling rain at times till 2 1/2th.
Clear and almost cloudless thereafter.
Hoar frost on roof at mid.

July 10th Summit clear till 2 3/4th Sky ~~some what~~ ^{some what} cloudy: but air very clear especially in evening to W³ and NW². To SE³ at and after 19th a bank of haze which floated above hill tops was seen steadily advancing: at mid. it was on Summit and brought mist with it.

Formation of cumulus from rising columns of mist and air in forenoon was well marked today.

July 11th Thick mist in early morning. Clear at and after 6th. but thick haze, and at times fog below all round, and sky somewhat cloudy with cumulus during the afternoon and at 5th after

18th Today the Telegraph lineman inspected and overhauled telegraph plant at Observatory

1892

79

July 12th

Summit clear except for some mist passing in morning. Cir. and Cir-c on sky air dry at and after 8th but broken fog on hills most of the day.

at mid: the sky was cloudless and a veil of auroral streamers converging in a point to SE of Zenith filled the whole sky except to S. and SE

July 13th

The Aurora noticed at midnight last night increased in brilliancy till 0th 30^m when it was very bright. It continued very bright and active till 0th 45^m, but thereafter gradually faded away and at 1th there was only a trace of it left.

Fog on N^o and E^o hills all day. After 20th it was continuous all round below 3000 ft.

Sky almost cloudless all day

Air very dry in early morning. Humidity gradually increased in evening.

at 23th and mid: Pearly Cirrus was seen about 10° above NEth horizon. At 23th 30^m while watching the Pearly Cirrus streaks of aurora were seen and the Cirrus seemed behind those Spectrum bands seen in N^o horizon at night. Photographs taken of these and of the Pearly Cirrus.

Mr John Crenar arrived at the Observatory yesterday.

July 14th

1892

80

July 14th

Partly clear continued visible till 2nd.
 Sky cloudless till 9^{am} but fog below in
 every direction which, after 9^{am} rose and enveloped
 Summit till 18th: thereafter lifting clear of hills
 forming an overcast sky above, and no fog below.

July 15th

Top clear almost all day but sky
 overcast with cum and cum-s.
 Dew noticed at 3^{am}
 Decided fall in temperature in evening.

July 16

Fall in temperature continued till
 4^{am} when reading was 31° 5'. It did not rise much
 during the day - the max. being 36° 1'.

Slight snow shower fell in forenoon and a
 slight drizzle from mist in afternoon
 but neither in measurable quantities.

July 17

Cold continuing - lowest temperature today
 29.8 at 5am. Temperature rose in afternoon
 when the fog cleared off. but fell again
 at night.

Air very clear all round in afternoon

July 19 at 14^h the Rain gauge was found on its side,
 blown over.

July 20 Mist till 10^h top mostly clear after that
 and visibility great: but detached patches of fog among
 hills after 19^h. Today Mr R. T. Ormond came up
 from the low level and Mr A. Rankin went down.

July 21 Air very dry in early morning, but sky cloudy mist & drizzle in evening -

July 23 Mist cleared off at 4^h but sky was partly covered with cirrus and cumulus all day - Fog covered the hills round at 4000 feet till 8^h and then broke up remaining as detached fog among hills all day - This evening Mr J. Craig injured his finger by a fall, cutting & bruising it on a stone -

July 24th Faint Pearly Cirrus seen at 1^h Sun lying fog over Loch Lomond, Lochiel & other sheets of water till 6^h fog hanging about the hill tops most of the day and considerable haze - Fog also gathered over the Atlantic at 22^h and gradually extended among hills to ~~the~~ northward at about 3000 feet - Pearly cirrus seen at 23^h and Midnight, bright but not extending to more than 10° elevation - This morning Mr H. F. Rankin came up from Fort William to take Mr Craig's place as observer.

July 25th Pearly Cirrus seen at 1^h Fog lay in valleys to Northward at 3000 feet till 11^h, at Noon fog was blowing over Ben Nevis, and haze & detached cum-fog continued all round during the day: At 23^h the haze thickened into fog on summit - Portion of Solar Halo seen at 13^h

July 26^d Glory seen at 6^h The 17th observation was taken 6 minutes late: no correction applied to readings. Today Mr J Craig went down to Fort William.

July 27th aurora seen at midnight, single arch no streamers - Haze & fog below at night.

July 28th sky cloudless all day, but fog on hills at 3000 feet till 9^h after which it rose & dispersed leaving the valleys full of haze with a few patches of fog among it - Northern horizon red all night.

July 29th Thick haze and patches of fog in valleys all day. Some of the fog rose & formed cumulus overhead in afternoon & evening.

July 30. Sky cloudless but thin fog blowing over till 4^h. Sky covered with cirrus types & haze and patches of fog in valleys all forenoon, mist or fog on summit all afternoon rain came on after 17^h the first fall since the 23^d Solar Halo seen at 8^h.

July 31st Mist or fog all day except for a few breaks from 11^h to 16^h. Today Mr Ed. Whymper visited the Observatory.

August 1st At 23^h and Midnight top was clear and fog lying among the hills round -

August 2nd Fog lay at a high level - almost 4000 feet - till 6^h after which it broke up into cum-fog & rose getting clear of the hill tops about 10^h and from 12^h onwards there was continuous fog or mist on Ben Nevis -

August 6th Today the Black Bull without jacket was taken in - after sunset -

August 7th Top occasionally clear in middle of day but fog generally passing a short intervals, mist in early morning & fog in evening -

During the past week Mr E. Whymper has frequently ascended the hill with aneroids - Comparisons have been made at top & bottom - And on the 6th Mr Whymper came up in the evening & stayed over night at the hotel on summit - He left finally on the evening of the 7th The aneroids were sent up again on the 9th to be read and kept some time at the Observatory -

August 9th Thin fog ~~was~~ in forenoon which later rose higher into light Cumulus & disappeared - No fog left in valleys - Air very clear all afternoon - South West & Banna seen - Bright Meteor observed at 22^h 2^m It was

passing close to Mars near SSW horizon when first seen, was green in colour & rather brighter than Mars & vanished in air to the left of Mars about 50° above horizon.

August 10th Clear sky but fog blowing over hill tops ~~the~~ occasionally till noon continuous fog all afternoon - fog seen at 6th

August 12th Fog all day except for a few hours in the afternoon but sky overcast and thin fog blowing over Summit and thick haze all round below. Today an excursion from the British Association visited the Observatory: it consisted of Messrs A. L. Rotch Blue Hill Observatory. R. C. Mosman Edinburgh. Ravenstein London and Prof. Oldham Manchester. Mr Rotch + Prof Oldham stayed overnight at the Hotel on Summit the others returned to Fort William. Mr Charles Stewart accompanied the excursion ^{to} the hill and remained at Observatory. Mr R. G. Oldham went down to Low Sealt Observatory along with Messrs Mosman Ravenstein in the evening

August 13th Rain fell heavily in early morning and evening. Barometer ^{falling} at 16th

August 14th Squally SW^y wind all day and Barometer ^{falling} till 17th

1892

85

August 15th A heavy shower of hail fell between 14th & 15th

August 16th Fog till 20th Sky overcast after that with fog on hills all round. Loch Eil lit up by afterglow at 21th

August 17th Summit clear all day but sky partly covered with Cumulus except at 19th and 21th when sky was cloudless. Fog on hills to 4000 ft most of the day but it sunk down into the valleys in the evening and broke up into detached Cum-fog. At 21th fog had all disappeared. A Lunar corona at 2^h & 3^h. The 19th observation was late 2 minutes

August 18th Top clear from 4th till 8th and some fog among valleys

August 19th Summit clearing occasionally till 19th since then sky cloudless and some detached fog in valleys.

Today Mr. J. Miller returned to Observatory

August 20th Sky cloudless till 3^h fog since with some breaks in the afternoon. A double corona at 6^h

Today Mr. H. Rankin went down

August 22nd Mist or fog all day except at 19th to 21st

August 23rd Fog till 9^h clear for the rest of the day but thick haze below and Cum and Cirro-C on sky

1892

86

August 24th Summit clear in early morning and at night but sky almost overcast. Heavy showers of rain fell at intervals during the day

August 25th Top clear but sky cloudy and fog in valleys all round which after 8th rose and enveloped Summit: buzzle all afternoon

26th August: Mist all day but clearing occasionally in the forenoon. Heavy showers of rain, snow and sleet fell throughout the day. Temperature low all day.

Today Mr A. Stevenson and Mr A. Snydale visited the observatory and stayed overnight

August 27th Showers of rain sleet & hail in the forenoon. Today Mr A. Stevenson and Mr A. Snydale went down

August 28th Temperature pretty low all day falling below the freezing point in the evening. Frequent showers of drizzle, snow and hail fell during the day. Mist and fog till 22th after which top was clear and ^{sky} almost cloudless but fog over hills all round and passing over Summit at times

1892

87

August 29th

Sky cloudless or almost so till 9^h but air remained saturated till 4^h. Sky cloudy or overcast till 16^h with cum-s cir-l and cir-s. Mist came on at 17^h and slight showers of snow and rain fell during the rest of the day: Light N^{ly} breezes and Calm till 8^h and veering to E and ESE and increasing in force to moderate gale in the evening: Fog all round in early morn to height of Ben Nevis and passing over Summit at times till 4 am after which it sank into valleys and gradually dispersed giving place to haze in the forenoon: Aurora single arch seen at 2 + 3^{hrs} in streamers:

Today maximum Black Bull 186 was brought in. Water was detected in inside of outside cover:

August 30th

Moderate gale from E and ESE till 8^h moderating to light N + NE^{ly} breezes in the evening. Barometer low and falling all day but temperature ^{higher} than has been for the past day or two. Showers of drizzling rain all day.

August 31st

Mist + drizzling rain all day. Light N + NE^{ly} breezes rather squally in the forenoon.

1892

88

September 1st

Barometer low and falling all day
mist and heavy showers rain snow and sleet

September 2nd

Very cold all day: Temperature very
steady at and a little below 32° accompanied
with heavy showers of Snow + Hail: Max
hourly fall .440 at 10th. Summit covered
with snow all day

September 3rd

Barometer rising briskly all day
Squally N and NE^y winds with showers
of snow throughout the day. Fog all
day except ~~at~~ at 4th when Summit
was clear for a few minutes only

September 4th

Fog till 16th Summit clear since
but sky more than half covered with
Cir-C + Cir-S and fog all round below
Air pretty dry after 17th. Lowest Humidity
about 56 per cent. Temperature low
and very cold all day and slight
showers of snow falling in the forenoon

Solar Coronae were seen at 17th + 18th
Lunar Halo at 23th + midnight.

September 5th

Mist came on after 1st and
continued all day with heavy shower
of drizzling rain. Temperature rising all
day. Lunar Halo at 1st

1892

89

September 6th mist or fog till 2 pm. Summit clear frequently after that but sky overcast or nearly so and occasional sunny intervals trace all round below and detached Cum. fog on hills which gradually spread all round and enveloped the summit after 19th: Air slightly dry from 15th to 18th. Light drizzle in early morn

September 7th mist and fog all day with heavy showers of drizzling rain and snow. Summit clearing at times at 8th

September 8th
Fog till 10th. Summit clear for the rest of the day except for some thin fog passing occasionally but sky overcast with Cirro-Stratus and a few patches of Cum-fog on hills to S^W. Temperature below 32° almost all forenoon but rising rather quickly after 21st and air became very dry. Humidity about 52 at 22nd at midnight air was almost saturated again. Sun or Corona seen at 4th

Today Mr A. Haberton arrived at observatory and will remain some weeks to conduct a series of hygrometrical experiments

1892

90

September 9th Temperature high all day
with mist and drizzling rain

September 10th Mist or fog all day except at
14th when Summit was clear but sky was
overcast and air slightly dry. Sun
gleaming at times through the fog in
the forenoon. Light showers of rain
sleet & snow fell at intervals during
the day. The 7th observation was taken 10
minutes late.

September 11th Mist with showers of sleet and
drizzling rain all day.

September 12th Temperature high with mist
and heavy rain all day.

September 13th Heavy showers of rain till
noon fair after that. Mist or fog all day
clearing at times in the afternoon with
sunny intervals

September 14th Heavy showers of rain all day
with squally W and SW winds:

Barometer falling after 13th.

A Party from the Yacht Medusa arrived
at Summit viz. Dr Murray and his nephew
Mr Turbidge and the Cook

1892

91

September 15th

Barometer falling quickly all day and pumping heavily at times. Very variable squally W and SW winds backing to S and SE at night. Mist and heavy rain all day.

September 16th

Rain and sleet till 19th and heavy showers of snow since. Summit white. Barometer falling quickly till 11th rising briskly since. Variable squally S and SW winds till 14th veering to W and N and NE since. Barometer pumping all day.

September 17th

Variable squally winds all day chiefly W. Fog and mist with showers of snow till 4th drizzling rain after that. Temperature below 32° till 14th rising slowly since. Barometer pumping all day.

September 18th

Strong gusty winds all day but moderating somewhat in the evening. Temperature high over 40° almost all day with mist and heavy rain. Barometer pumping till 14th.

September 19th

Mist or fog all day with showers of rain and drizzle till 14th fair after that and sun gleaming occasionally in the afternoon. Temperature falling all day and below 32° in the evening.

1892

92

September 20th

Temperature below freezing all day with E and ESE breezes and Calm after 23rd: Mist and fog till 20th sky cloudless after that and air dry but fog all night in valleys. Very crystals forming from the mist on windward side of all exposed surfaces in the car morning: Aurora single arch 22nd 23rd and night: At 22nd there were shifting streamers to about 40° altitude

September 21st

Sky cloudless all day but some fog in valleys till 10th and passing over Summit in the early morning: Air dry all day but very dry in the evening: Lowest humidity 32 per cent at night: At magnificent Aurora seen from 20th till night. There were three distinct arches from W to S to NE with shifting streamers shooting to the Zenith

September 22nd

Temperature high and air very dry all day. Humidity ranging from 28 to 40%: Light SE and S breezes: Sky cloudless all day and air very clear, but a little detached fog in valleys to SE + E and slight haze in valleys all day and some cirrus or haze to W and NW in the afternoon

1891

93

The Aurora of last night was observed till 4 am and again to night from 20th till midnight. a single arch and no streamers: Today Mr. D. Curran Telegraphist left the Observatory

September 23rd Sky cloudless till 4th but some Cir-Cum on horizon to W + N. Thin fog passing over Summit at 4th and off and on after that till 9th continuous mist since with slight drizzle and heavy rain after 19th. Air pretty dry till 4th but occasionally dry after that till 9th.

Today R. T. Diamond and R. Turnbull B.S. visited the Observatory. Mr Turnbull remains overnight at the Observatory but Mr Diamond went down again after having examined the Aneroids left here by Mr E. Whymper.

September 24th Mist and fog all day but thinning at times in the forenoon. Very variable squally winds all day chiefly Wth with heavy showers of snow and ^{hail} till 20th heavy rain since snow lying on Summit all day to the depth 3 or 4 inches. Barometer falling after 3th. Today Mr Turnbull left the Observatory.

1892

September 25th

94

Heavy showers of rain snow
and hail all day

September 26th

Variable squally wind and SW winds
all day with showers of snow in early morn-
ing and heavy rain at night: Mist
and fog all day except at 11th when
Summit was clear but wind blowing over and
sky overcast with cirro str and cum-fog
on horizon. Temperature low in morning
but rising all day: Barometer pumping after 5th

September 27th Barometer falling pretty quickly
till 17th but rising slowly since: Heavy rain
till 5th and showers of sleet snow and hail
since. Mist and fog all day but fog
thinning at times between 11th & 13th and sun
glancing. Barometer pumping slightly in the
forenoon

September 28th

Temperature low and heavy showers
of snow fell throughout the day and —
drifting about considerably in the evening
depth of snow about 6 inches: Barometer
pumping slightly at 12 & 13th: Today Mr
Herbertson went down to the Low Level Observatory

1892

95

September 29th Temperature pretty steady all day at 28° with heavy showers of snow and drifting a little in early morning. Average depth of snow on Summit about 9 inches. Weather forming round Observatory varying in depth from 2 to 3 feet -

September 30th Fog or overcast sky all day except at 4th when sky was cloudless and thin fog blowing over Summit but Summit clear again after 20th and detached cum fog on surrounding hills. Light showers of snow till 7th but fair after that with occasional sunny interval in the afternoon. Air saturated all day. Light SW^{ly} breezes till 2th backing to the SE + E till 19th N^{ly} breezes since

October 1st Fog and overcast sky all day but sky almost cloudless at mid^{day}. Detached cum fog on hills and blowing over Summit occasionally. Light falls of snow till 9th but fair after that and sunny at times during the day. Snow drifting along surface in the afternoon

1892 October 2nd

Summit clear after 1st till 5th but 96
sky about half covered with Cumulus
and fog on hills all round, since
then almost continuous mist and
fog: Heavy showers of snow fell after
5th till 15th

October 3rd

Summit clear after 4th but sky overcast
with Cirro-Stratus and Cumulo-Stratus and thick
fog on hills all round till 11th continuous
fog since. Slight showers of rain and sleet
in the evening: Barometer jumping slightly
at 17 and 18th: No readings of ~~toothy~~ Black
Bulls were obtained till 9th owing to it
having a thick coating of Snow Crystals
on it

October 4th

Summit clear after 15th but
sky overcast with Cirrus and Cirro-Stratus and
thick banks of Cum-fog on the surround-
ing hills, after 20th sky was cloudless
except for some thin scud passing at
times. After 23th fog came on again
heavy rain till 15th fair since: A
Solar halo at 15th.

Today Hotel on Summit closed for
the Season! Two Visitors with Guide
arrived at the Observatory in the
afternoon

1892

97

October 5th

Fog and overcast sky till 9th but sky was almost clear at 3th and thick banks of fog all round and considerably higher than Ben Nevis. Continuous fog after 9th: Barometer falling quickly till 29th falling over half a tenth at times, but rising slowly since snow began to fall heavily after 13th and continued throughout the rest of the day = from 1 to 4 tenths falling hourly. A Solar Corona at 17th

October 6th

Fog or mist all day with slight showers of snow sleet and rain. Today Mr Herbertson arrived at Observatory and Charles Stewart went down

October 7th

Slight showers of snow and drizzle throughout the day and at times slight surface drift blowing about. Barometer pumping occasionally during the day

October 8th

Fog and mist all day except at 13th when Summit was clear but sky nearly overcast with Scud and Cirrus. Showers of snow in the forenoon and sleet and rain in the evening. Snow drifting slightly in the forenoon. Barometer rising slowly till noon but falling quickly since. Squally N winds till 19th but backing since to S.W. Barometer pumping till 8th

1892

October 9th Variable squally w and sb 98
winds till 6 am rising to N and NE since
and Barometer rising quickly; Mist and
fog all day except at 6 & 7th but sky cleared
and thin fog passing. Showers of snow
and sleet and drifting about a great
deal during the day.

October 10th Fog and slight showers of snow
in the morning and evening:
Today five visitors ascended Ben Nevis

October 11th Light N^E breezes all day with
slight showers of snow and drizzle till 8th and after 15th

October 12th Top clear and air dry from 5th till 14th and
sky cloudless except for a little thin sand blowing
over at times: Thick fog all round and ex-
tending to a considerable height above Ben Nevis
after 14th fog came on again but clearing occas-
ionally and air dry at times: A Bright meteor
was observed at 5th 8th. Glories were seen fre-
quently from 8th till 13th and a number of
measurements were obtained (See hourly sheets)
At 2:10 the small thermometer Box (Winter Pattern)
was put out on Ladder Stand N^o 2 with
thermometers dry 192677 wet 192672 and min
138545: duplicate readings were made up
till noon; after which readings of thermometer
in Big box were discontinued

1892

99

October 13th

Fog or mist all day but clear at times in the forenoon and evening: Air slightly dry at 23rd + midst: Light showers of snow fell during the day: Depth of snow on Summit 23 inches "measured at Snow Post."

October 14th

Strong gusty E and NE^{ly} winds all day Summit clear but sky somewhat cloudy till 16th but cloudless after that and air pretty dry Very thick banks of cum-fog over hills all day and passing over Summit at midnight. Barometer pumping all day: Aurora single arch seen at 22 + 23rd. Dry wet Bulbs 39 inches above snow at 15th.

October 15th

Strong squally N + NE^{ly} winds all day Sky cloudless till 3rd but thick fog all round and blowing over Summit almost all day but sky apparently cloudless. Temperature low and Barometer pumping all day! Aurora single arch at 2nd A meteor seen passing through the Pleiades at 4th Glories were seen between 10 + 11th.

October 16th

Sky cloudless and air dry till 2nd but thick fog all round below which rose and enveloped Summit thereafter but top clear occasionally during the day: Strong squally N^{ly} winds moderating somewhat in the evening. Slight shower of snow in the forenoon: Aurora single arch at 1 + 2nd.

1892

100

October 17th

Fog and overcast sky all day.
 Temperature low and pretty steady all day
 and light N^E breezes and Calm

October 18th

Sky cloudless till 8th but somewhat
 cloudy after that, and thick fog below
 all round which rose and enveloped
 Summit after 18th. Air very clear all
 round in the forenoon, Ireland &
 the Outer Hebrides being distinctly
 seen with the "naked eye". Air very
 dry till 18th Humidity being as low as
 33 per cent. Aurora seen from 1st till 5th
 There were two well defined arches, the
 lower one extending from W to NE and
 bright streamers shooting to the Zenith
 and continually shifting. At 3.4 & 5th
 pulsations were very rapid & bright
 Earth shadow visible at 7th. A Solar
 halo at 14 and 15th

October 19th

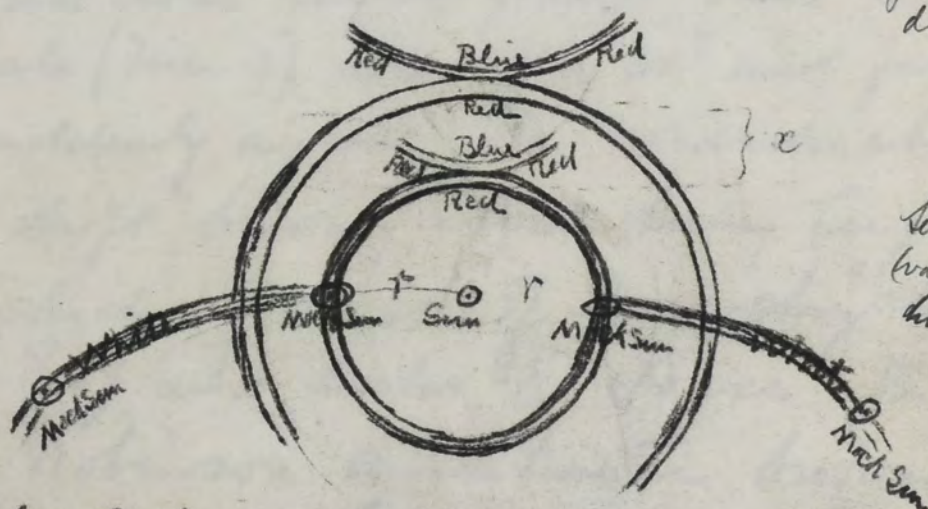
Light showers of snow during the
 day. Observation at 13th was taken a quarter
 of an hour late. Telegraph Sine-man
 came up today. He touched up contacts of
 instrument and renewed battery

1892

101

October 20th

Fog or mist till 10th Summit clear but sky overcast with thin Cirro-Stratus and fog all round below, but rising at times and frequently passing over Summit in the afternoon. Slight showers of snow and drizzle in the forenoon and again after 22^h 4.



Solar Halo seen between 13 and 16 hours as sketched above

Measurements		r = distance between real ^{inner} & mock suns		x = distance bet ^{center of} rears of 2 halo.	
	left	r	right		
	24° 43'		23° 58'		23° 17'
	24° 43'		24° 43'		23° 17'
13 ^h 45 ^m	21° 48'		21° 48'	} Thicker cloud	24° 43' - 13 ^h 45
	21° 54'				
13 ^h 52 ^m	24° 13'		24° 13'	} Thinner cloud	24° 35' - 14 ^h 0
			24° 13'		24° 13' - 14 ^h 5"

16^h. Red & Halo from sun 22° 49'

The horizontal white circle extended almost completely round heavens & at one time being broken from N - NWE only (measured approximately 13°). The outermost mock sun was at right angle to real sun.

Note: Stephenson was pitched with string, but measurements should be very nearly accurate.

1892

102

October 21st

Summit clear at 4+5 hours but sky cloudy and fog all round and again at midnight and sky clear but thin fog blowing over Summit. Slight showers of snow fell during the forenoon. Slight N^{ly} breeze till 15th (force 1 to 3) after which wind rose rapidly and blew a strong gale (force 9) till after 21th and fell quite suddenly again. A considerable amount of drift blowing about during height of gale including blocks of snow-crystals blown off roof and sides of Lower. An arm of Robinson anemometer broken, and Range blown away, but found again at midnight at Wragge's Barometer jumping heavily after 16th.

October 22nd

Temperature low and very cold all day. Min registered 178. Thin fog all forenoon but clearing at times in early morning and sun gleaming at noon. Light showers of snow fell after 7th and slight surface drift blowing about in the forenoon.

October 23rd

Summit clear from 6 till 9th but sky overcast. Variable squally N and NE^{ly} wind all

day and increasing in force after 21st and 103
blowing about 55 miles an hour. Showers
of snow fell in the morning and afternoon
and a good deal of drift blowing
about in the evening: Barometer falling
after 21st

October 24th

Fog or overcast sky till 16th sky cloud-
less after that and air dry at times in the
evening. Temperature very low all day
Min registered 16.1. Variable N and NE & breeze
all day and calm.

Thermometer Box shifted (new Box) h^o put
out by 535541 wet 535542 & Min 138533
Box was raised one step. Height above
snow 55 inches

October 25th

Sky cloudless all day except
for some fog passing over summit at 16th
17th: detached Cumulus at horizon all
afternoon and a little Cirrus above
horizon to W + N at 15th. Temperature
still keeping very low, and air dry
almost all day. Humidity about 50
per cent. Air very clear in forenoon
sky, other features and Colours
being distinctly seen

1872

October 26th

104

Sky cloudless till 10th and on
 dry occasionally in the forenoon, but
 sky cloudy or overcast with cirrus
 and fog in valleys to N thereafter and
 passing over Summit at times till
 16th continuous fog since. Wind calm
 till 4th backing to SW and S and blown
 a strong gale from SE all evening
 and snow drifting about a great deal
 Air was exceptionally clear in the early
 morning. Seven Lighthouse lights being
 distinctly seen. From NNW to SSW
 Glories were seen during the forenoon

See sketches (special features shown)
 & measurements in daily sheets
 of this date

October 27th

The SE gale continued and increased
 in force till 13th reaching an estimated
 Velocity of 100 miles per hour, but gradually
 fell in force to a strong breeze. Wind
 veered to S after noon but backing
 again to the SE after 16th and wind
 rising again. A considerable amount
 of drift blowing about in early morning

1892

105

- Kitchen door was blocked at 1st and observation were taken by going out by lower door: Temperature rising all day showers of sleet fell in the forenoon and heavy rain in the evening low door opened again in the afternoon

October 28th

Strong SE wind till 2 am but light variable S and SW breezes during the rest of the day. Temperature remarkably high and pretty steady. Max 38.2 Mist and heavy rain all day. Depth of snow 23 inches: Thermometer Box was lowered one step at 14th.

Height of Bulbs above snow 42 inches

October 29th

Temperature high all forenoon but falling quickly in the afternoon to 32° after 17th Mist and heavy rain and showers of snow in the evening depth of snow today 18 inches

October 30th

Fog & showers of snow till 22nd but mist and drizzle thereafter but temp below freezing

October 31st

Fog or mist with slight showers of snow and drizzle Summit clear at times in the forenoon One tourist up to-day: Eight strangers climbed the Ben during October

1892

November 1st

106

Light W and NW breezes till 10th backing to S and SE since and increasing in force to a strong wind tonight. Thin fog till 13th but Summit clear at times since, but dry overcast, continuous fog after 22th

A Party of 8 Tourists came up today
November 2nd

SE^{ly} winds all day but increasing to a strong gale at 11th and moderating after 16th to a light breeze in the evening. Fog all day. A considerable amount of drift blowing about during the gale. Low door was blocked in the forenoon but opened again in the evening. The fog crystals that formed on all exposed objects were dark brown in colour.

Barometer pumping after 9th

October 3rd

Strong SE wind and increasing in force to a strong gale till 7am but wind veering to S. SW. and W. and moderating in force to a light breeze till 20th but then after backing to SE again and increasing to a strong wind after 23th mist or fog with showers of snow sleet + drizzle after 7th

1892 November 4th

107

Fog till 10th and after 20th sky cloudy between those hours and fog below and occasionally passing over Summit. At 18th the fog below to W^d was hard packed Str. fog while to E^d it was of the loose Cum type.

Today Mr. A. Rankin returned to this Observatory

Nov^r 5th

Busty Sth winds, mist, and showers of rain and sleet with temperature about 32° all day.

Today Mr. J. Miller went down to the Low Level Observatory

November 6th

Fog and showers of snow till 18th Summit clear occasionally thereafter.

At 22th a Lunar Corona and fogbow were seen.

after 20th observation, the thermometer box was changed. On 192677 Wet 192672 and Min 138545 were put out. Height above snow not altered.

November 7th

Cloudless till noon, but ~~then~~ mist below and at times thin mist covered hill top for short intervals. Lunar Coronae were seen in early morning, and a Solar fogbow was seen at 11th. At 4th a very faint aurora was seen.

Fog covered Summit from 13th till 18th when it cleared and sky was overcast till 18th when fog came on again.

Fog crystals forming in afternoon

1892 November 8th

Mist and rain with squally S. or SW winds all day. 108

Marked rise in temperature today from 30.9 at 1" to 38.0 at 18."

November 9th

Mist and rain with SW winds in forenoon. Wind veered to W and NW and temperature fell in afternoon.

November 10th

Mist and S. or SW. winds all day. Temperature between 30° and 32. Ice forming on surfaces all morning.

[Today Stewart brought a horse to summit].

November 11th

Mist or fog, except for short clear intervals all day.

S to SW winds and temperature rising slowly.

The thermometer box was changed after 11".

Dry bulb 53.5 54.2 Wet bulb 53.5 54.1 and min 13.8 53.3 were put out. — height above snow not changed.

November 12th

Mist all day: Heavy rain ^{and snow} at night. S to SE winds all day rising to a moderate gale, force 6-7 at 21" moderating thereafter.

November 13th

Temperature fell and wind veered to N in early morning, and continued N or NE all day, but than mist on Summit most of the day.

November 14th

Temperature rose quickly after 12th and heavy rain fell all afternoon.

Fog crystals forming in morning.

November 15th

Mist rain in morning: fog in afternoon.

Wind veered in forenoon and temperature fell during the day from 35° at 1st to 25° at midnt.

November 16th

Light southwesterly winds, with fog and showers of snow. Temperature pretty steady, 25° to 28°.

November 17th

Summit clear of fog from 6th till 10th but sky was cloudy then and fog and haze lay below.

Thick fog depositing brown fog crystals all afternoon.

Wind southerly in forenoon: southeasterly in afternoon.

Temperature rising slowly, being highest at night.

Glories seen at 8th on fog in Second Gorge.

Thermometer has changed after 8th - height not altered.

Dry 192677, wet 192672 and min: 1385245 were put out.

November 18th

Mist or fog till 20th, when top cleared and sky became rapidly cloudless.

South easterly winds all day. Temperature fell in afternoon. Some rain and sleet fell in morning forming ice on surface. - temperature being below 39°.

November 19th

Cloudless or almost so and air dry till 7th but fog and haze below.

Thick fog depositing brown fog crystals during the rest of the day.

SE wind all day rising to force 5 to 6 in forenoon but falling in evening to 3 and at midnt to 2.

Temperature rose a little in morning. Snow falling at night.

1892 November 20th

110

Fog all day: with some snow in early morning.
E to SE winds all day rising to force 5 to 6 in
afternoon. Temperature pretty steady - but slightly
higher at night than during the day.
Brown fog crystals forming most of the day.

November 21st

Fog & ESE wind, all day. Temperature steady,
30th & 27.8 at mt.

Browning fog crystals forming nearly all day.

November 22nd

Except for a short clear interval at 5th there
was thin fog on Summit till 20th after that it cleared
off and sky was cloudless, the air dry and warm (the
temperature rising quickly) till mid.

SE or ESE wind all day.

Aurora seen at 5th and at and after 21th.

At 21th 30^m the thermometer box was changed.

Dry 535341, Wet-535342 and min 138533 were put
out. Height above snow not altered.

November 23rd

Summit clear, sky almost cloudless and
air dry (mean humidity 55) and warm all day. The
temperature was 40° to 43° from 9th till 15th - the mean
for the day being 37.7°.

Fog on hills to S^o and SE^o all day, and haze
to N^o and W^o.

Aurora seen all morning and again at 22th.
When the summit cleared last night there was a
heavy coating of fog crystals on SE side of everything, but
owing to the dryness and warmth of air they by midn^t
they had almost all evaporated.

1892 November 24th

111

The high temperature (34° to 40°): the low humidity (37 to 56%) and the clear sky, continued till 18^{th} but there was fog to 3000ft . all round below. Till 18^{th} there was hardly any wind. but at 19^{th} a SE breeze began to blow the fog rose and enveloped Summit also, and the temperature fell 11° .

A very faint Aurora was seen at 5^{th} and again at 18^{th} and 19^{th} .

At 9^{th} 45^{m} a glory was seen on the fog low down to N. and measurements per Stephanou were made of ~~inner~~ red of the inner of two sets of coloured rings. The mean of 6 measurements gave as radius of this red $2^{\circ}54'$. The colour of the rings it was noted was dispersed and irregular owing to the irregularity in density of the cloud.

In early morning 3^{th} to 6^{th} a great many meteors were seen some very bright - at 3^{th} as many as 20 in 4 or 5 min. could be counted.

At 13^{th} observation. the wet bulb looked rather dry. (the readings being 37.1 dry, 31.2 wet) another reading was made at 13^{th} 23^{m} (Dry 37.2 wet 28.4). The latter is entered, without time correction, for 13^{th} on daily sheet.

November 25th

Thin fog, depositing white fog crystals, all day. ESE to SE strong breeze. Temperature low all morning (23°) rising in afternoon to $29^{\circ}8$ at midn. Snow falling after 20^{th} .

November 26th

Wind rising today to SW. NW and N. Fog at midn. with showers of snow all day. Ice forming on surfaces at night - temperature 30° to 31°

1892 November 27th

112

Mist. SW. wind and drizzling rain all day. Temperature rose to 7th and continued 34° to 35° during the rest of the day.

November 28th

Temperature 34° to 37° till after 21st when it fell quickly being 29° 0 at midst.

SW. winds, very squally. Mist and heavy rain all day. Total rainfall for the day being 3.443 inches.

November 29th

Great fall in temperature today from 27st 1st to 17° 6 at midst. Wind veering from W to NW, and NE. Fog and heavy snow all day (apparently the snow in rain gauge taken in at 12th had not melted and was not noticed when put out at 13th, so the amount measured at 14th has been divided between 12th and 14th.)

November 30th

Fog and snow most of the day, with variable squally winds, chiefly N, and low temperature (16° to 20) Box changed 192677 192672 138545 put out -

Eight strangers observed during November.

December 1st

Sky clear except in early morning and after 21st sky nearly cloudless most of the time. Temperature low & air saturated all day.

At 4th a glow and a triple fogbow were seen to N. the order of colors was: -

Lunar coronae were seen in evening.



1892 December 2nd

113

Fog at 1st and 2nd and at and after 17th.
Clear and almost cloudless between those times. but detached fog and haze below, which thickened and rose in afternoon.

a Lunar Corona was seen at 4th a meteor at 6th and the earth shadow at 8th.

Temperature down to 11° in morning. rising in afternoon to 18°.

December 3rd

Fog all day, and showers of snow and hail at and after 9th.

Temperature rising quickly in early morning, falling again at night.

Wind veered from S in morning to NE at night. about 10:30^m the telegraph instrument indicated several flashes of lightning, and the last of which short-circuited the line by breaking through the protector in Post office. Communication was restored after 16th.

St. Elmo Fire was seen at 21st.

December 4th

Fog most of the day, with showers of snow and much drift.

Wind squally N. all day. Temperature low the mean being 13.7.

December 5th

Temperature low, 11° to 13° in forenoon rising in afternoon. Showers in morning and snow falling all afternoon. Temp. Clear at times. Two hours Sunshine recorded.

Lunar Corona seen in morning.

1892 December 6th

114

Fog all forenoon. Clear at times in afternoon. Very variable winds chiefly Northly. At 17th the rain gauge was found 20 to 30 yards from its place - having been blown away. The amount found in it has been entered on daily sheet as hourly fall.

December 7th

Summit. Clear from 2nd till 7th and air dry from 3rd till 8th - lowest humidity 36% at 4th. Fog and showers of snow from 11th till 20th. Clearing thereafter.

Lunar Corona seen at night. Very gloomy appearance to W. & N. in forenoon.

Thermometer ~~box~~ was changed at 2nd 15th - Dry 135524
No. 535542 and min 138533 were put out.

December 8th

Fog or mist all day with snow falling from 12th till 19th. Wind backed to SW in evening. but veered again at night.

December 9th

Fog on or passing over, Summit till 18th when it cleared off; but sky remained cloudy and air saturated (except at 23rd).

At 2:30^{pm} this morning a strong N. Squall of about force 7 lasted for about 10 minutes (see barograph). During the rest of the day the wind was very light and unsteady.

December 10th

Top clear at 1st and 2nd but fog or mist during the rest of the day. Temperature rising till 4^{pm} (31.2 max) Ice forming on surfaces in afternoon. Heavy fall of snow and snowhail in afternoon.

1892 December 11th

115

Fog or mist all day, with ~~the~~ snow falling pretty constantly. Wind very variable today.

December 12th

Fog most of the day - clearing only at times between 11th and 18th. Snow falling in forenoon.

Temperature falling till 17th.

N. or NE winds all day

Thermometer box was changed after 12th 20th. No. 192677, but 192672 and minimum 138545 - new put out - height not altered.

December 13th

Fog clearing at times in forenoon, and almost clear from 15th till 20th. but air saturated except at 18th. Temperature rising in afternoon. Snow and hail falling at night.

Aurora seen at 1th. and a foghorn and gong at 12th. Squally N. winds in forenoon, backing to SE at night.

December 14th

Mist or fog all day. with hail and drizzle in early morning and heavy showers of snow in afternoon. Ice forming on surfaces at 1th with a temp. of 28° 5.

December 15th

Mist or fog all day. Snow falling most of the day - heavily in forenoon.

December 16th

Wind backing to SW and temperature rising in forenoon. Heavy rain all evening with squally SW winds.

1892 December 17th

Mist almost all day. Variable light 116
winds with falling temperature in forenoon. Squally
SW wind with heavy rain at night. Temperature
rising quickly in evening.

December 18th

Very squally SW^{ly} and W^{ly} winds with
heavy rain in early morning. Wind moderating
and backing ~~to~~ to N during the day.
Temperature falling quickly from 5th till 8th.
At 2th the rain gauge was found lying on
its side. The amount found in it is probably
too small: but nothing has been added to
it in daily sheet.

December 19th

Thin mist and drizzling rain all day.
The barometer reading entered on daily sheet at 16th
today is an interpolation

December 20th

Fog all day from which fog crystals
were forming. Wind backed to SE in early
morning

December 21st

Fog or mist and southerly winds all day
Temperature 29° to 32°. { Today Sam Weir left Observatory
and Wm. Stewart arrived.

December 22nd

Fog till 11th. Thereafter the fog cleared and after
14th the air became gradually drier the humidity
at mid. being 71%. After 19th the sky was cloudless.
but fog and haze filled valleys below all
round Aurora seen at mid.

Box shifted at 13th 10^m. Dry 535321 Wet 535342
as L Min 138533 were put out - same height as last.

1892. December 23rd

Air dry till 5th but saturated at and after 6th. Temperature falling all day to 14° 3 at midn.) Sky clear in morning and again at night. but fog on summit during the day from which brown fog crystals were forming.

Bright aurora seen at till 5th being very active streamers and flashing a good deal. Seen again at night - pretty bright with two well defined arches but no streamers.

Strong SE to ESE breeze all day.

December 24th

Air very dry all day. From 4th till midn. the humidity ranged from 7 to 15 percent. For several hours it was below 10 percent. Sky cloudless except for a little cirrus between 10th and 16th and again after 22th. but thick haze in valleys and also some fog in forenoon.

Aurora seen in morning and again at night.

The air was so very dry today that after the wet bulb had been moistened it became dry in a few minutes, so that most of the readings were made between the usual time and 7 minutes past the hour. but since the dry bulb was on the whole steady no correction was applied to readings of wet bulb for being late, nor were readings of the barometer etc. made except at the usual times.

At 5th 6th 7th and 8th the dry bulb readings at the hour were 24.4, 25.3, 25.2 and 24.7 respectively - the readings entered on daily sheet being made at 5th 16^m 5th 32^m and 7th 20^m. There was no reading made near enough 8th so the wet bulb was interpolated from readings made at 7th 34^m and 8th 49^m. At 19th the entered reading

1892

Reading was made at $19^{\text{h}}.11^{\text{m}}$ - the dry bulb at the hour being 29.3 . At 20^{h} the wet bulb was dry though it had been wetted at $19^{\text{h}}.50^{\text{m}}$ - the entire readings were made at $20^{\text{h}}.6^{\text{m}}$ and at 22^{h} the bulb was almost dry (after having been ^{very} wetted) before the mercury stopped falling.

About 1st hour of sunshine was lost - the moving owing to focus being off the card. (Perhaps some was lost in same way yesterday?)

The lowest dew point today was -28.9 at 16^{h} . and the mean for the whole day -18.5 .

December 25th

Air very dry again today the humidity ranging from 9 to 19 per cent. Sky cloudless except from 9^h till 13^h when ~~there~~ a little cirrus moving from N or NW was observed. Haze in valleys and streaks at horizon most of the day.

A faint Aurora was seen at night, and a Solar Halo at 12^h.

The Earth shadow was observed after sunset. At 11^h the wet bulb was too dry at the hour - the readings entered were made at 11^h.9^m.

The southerly or southeasterly wind blowing last few days died out about midday today and the afternoon was almost calm throughout.

December 26th

Sky quite cloudless all day. Air very dry extremes of humidity being 15 and 27 per cent. Thick haze in valleys all day. Wind W to NW today force 1 to 2.

This morning a faint grey glimmering light was seen in N. sky not distinct enough to say whether Auroral or not. Fog was seen over the haze on the Atlantic coast in afternoon. (Mrs Stewart came up and stayed all night.)

1892 December 27th

119

Summit clear all day. Sky cloudless till 7th but some cirrus during the day. Thick haze in valleys all day. with fog to W^o and SW^o in afternoon. Air very dry - mean humidity 21% and lowest 13%.

At 3th 4th and 5th the same peculiar shimmering light was seen in N^m and E^m sky as was noted yesterday. It did not look like aurora, being more like very thin filmy cirrus clouds lighted up. A solar halo was seen at 13th and a lunar halo at 23th.

At 23th and mid. thick dark str-cir clouds were seen low to NW^o.
The mean temp: today was 27° 4 the extremes being 30° 8 and 23° 0

December 28th

Air very dry all forenoon. After 11th the humidity rose and at 13th reached 100. ~~and~~ fog came on. at 14th sky cloudy all forenoon and thick haze and fog (to W and SW) below. Top cleared again at 22th and hard detached masses of "rare" str-cir were seen on sky.

In early morning (3th to 6th) the shimmering light noted last two mornings was again seen in all parts of sky, and apparently lighting up the edges of clouds that lay near horizon.

A bit of a Lunar Halo was seen at 1th.

December 29th

Air very dry and sky cloudless except for a few patches of hard str-cir till 7th when fog came on and did not clear during the rest of the day.

Peculiar light seen in E^m & SE^m sky in early morning.
Brown fog crystals forming from the fog today

1892 December 30th

Fog till 15th. Sky, cloudy thereafter and haze 120
and fog below.

a little snow fell in forenoon.

Fog crystals forming all morning

December 31st

Summit clear till 9th but fog below all
round which rose and enveloped summit at and
after 10th.

Strong SE to ESE breeze in afternoon rising
to a moderate gale (6-7) at night

Thermometer box changed immediately after the
2nd observation. Dry 192677 Wet-192672 and
Min 138545 were put out - height above snow
not altered.

No visitors during December.

Instruments etc 1892

Barometer N^o 1385 was in use during the whole year -
N^o 1252 being kept in reserve: the latter is supposed to have
a trace of air in its vacuum.

The following Dry and Wet bulbs were used: -

Nos 535541 535542. 192677 and 192672: and
the following self-registering thermometers Max 117293 &
min 116918 in large screen from June 11th to Oct 12th
and mins 138533 and 138545 in small box ~~before~~
during the rest of the year. On October 24th a
new pattern of winter screen was brought into use
It is much stronger ^{than} but of the same size as
the old pattern. The corners are stouter, and are
sunk into and kept flush with outside of corner
posts. The old pattern boxes have not been used since.

The Tower screen and thermometer have been in occasional use.

The old 5 inch gauges were used till 11th Feb. and since then a new pattern of 5 inch gauge without broad base or screw-plug has been in use.

The Campbell-Stokes Sunshine recorder has been in used throughout the year.

Black Bulbs - max 186 and Ordinary 48 4108 were in use when possible - chiefly from June till Sept.

The former lies at Low Level Observatory since October. The platinum points of the latter have been injured and there is some air in its vacuum.

The Direction and force of the wind have been observed as usual on the roof of Observatory, at the hourly observations.

The H.C. Anemometer was accidentally broken on January 8th and has not been used since. The Crystal Direction anemometer has not been used. Its Clock is used as the Standard G.M.T. Clock in office and keeps very good time. (G.M.T. has been received per wire from the 10th signal with good regularity)

The Rainband Observations have been continued with the Direct vision Spectroscope.

Several Photographs have been taken.

The Stephannon has been in use for the measuring of Glories, Coronae and Halos.

The depth of snow has been taken as usual at post A called "the snow gauge".

The Barograph (Richards) has been in use all the year.

1892

Instruments etc.

122

Except as regards the rainfall the observations have not been interrupted during the year. On January 17th owing to the thermometer box door having been broken observations were not made for several hours, but the temperature at these hours was interpolated from readings of the Tower Storm Box.

Dust Observations have been made throughout the year with the large Dust Counter in Tower - the small one is still at the Low Level Observatory.

The Telegraph Instrument has worked well throughout the year. Daily weather Reports from both Stations continue to be sent to the Daily Papers.

Since September 8th Mr A. J. Herberson has been conducting experiments on the Hygrometry of the air on Summit. Since October 6th he has been assistant observer at the Observatory.

In August Mr. Edward Whymper made some experiments on the behaviour of aneroids with varying pressures at both Stations.

The Sirologograph was not used during the year. In Sept^r it was sent away to be repaired and tested with a view to its being erected at the Low Level Observatory.

The Staff of the Observatory consists of R. T. Omond, Angus Rankin, James Miller, and Samuel Weir. George Robertson was on the staff till July 6th when his place was taken by Weir. Mr John Great was telegraph Clerk in summer, and Messrs J. I. Craig, H. F. Rankin, C. Stewart, A. J. Herberson and Wm Stewart took the place of various members of the staff during the holiday season. The Observatory Buildings are and have been during the year in fairly good condition.

January 1st

Strong ESE or E wind till 18th after which it moderated. Thin fog on Summit or passing till 21st Clear and cloudless thereafter.

Temperature falling all day. 17.4 at 1st. 6.6 at mid.

Thermometer box changed at 23rd. Dry 535341 Wet 535542 and min 1385-33 here put out - height above snow not altered.

January 2nd

Temperature rising slowly all day. Cloudless till 3rd. Thereafter the sky got quickly overcast and at 9th fog came on and did not clear again till mid.

In middle of day with temp 14°. there was a thin mist on Summit. A little snow fell in evening.

(Today Mr. Miller and five others including three ladies visited the Observatory)

January 3rd

Fog or Cloudy sky all day with showers of snow in morning. Owing to squally winds and drift the measurements of snow are doubtful. Lunar Corona seen at 8th. Mist observed in afternoon with temp: 18°.

January 4th

Summit Clear till 17th and sky cloudless most of the time. but fog and haze below. Calm almost all forenoon. SW wind with snow falling at night. Earth shadow seen at 9th.

1893

Thermometer box changed after 7th On 192677
 Wet 192672 and Min 130545 were put out -
 height above snow not altered

124

January 5th

Fog with snow falling till 5th: Cloudy till 9th:
 Cloudless and air dry during the rest of the day.
 Thick haze and some fog below all round.
 Bright Aurora seen at and after 18th
 Wind backed from SW in morning to SE in
 afternoon.

January 6th

Summit clear at times in forenoon:
 Thick haze and fog below: Fog with snow
 falling all afternoon, and SE wind rising
 slowly in force, being 6 at mid:
 Lunar corona seen at 1st

January 7th

Squally E^{ly} winds all day: Fog till 13th
 Cloudy thereafter with fog rising at times.
 In early morning it was doubtful whether any
 snow was falling: but owing to the strong
 wind and drift the rain gauge was useless.
 Barometer pumping wildly all day.

January 8th

Strong E wind all day: very squally and
 rising to force 8 at night: Fog all day.

January 9th

Wind gradually falling in force all forenoon
 being 1 at 11th: Thin fog till 6th: and at times till
 15th: Air very dry thereafter humidity falling to
 18 at 22th: Bright Aurora at and after 18th:

1893 January 10th

125

Fog all round below today, and its top kept passing over summit most of the day.

Aurora visible till 2^h and at 5^h and 6^h.

The zodiacal light was seen to SW^d at 20^h.

A weasel was trapped inside Observatory today. It was pure white all but about 2 mts of its tail which was pure black.

January 11th

Sky cloudless till 22^h but fog below all round which rose thereafter and covered summit also.

Aurora seen at 3^h and 6^h and again at night.

The zodiacal light seen to SW^d at 19^h and 20^h.

Very bright. Afterglow seen between 17^h and 18^h.

January 12th

Sky cloudless in forenoon but fog all round below. on which clouds and fogbows were seen. This fog rose to level of summit by 12^h and covered summit during the rest of the day, when it came on first it was mist, though the temp was only 23°.

Aurora seen at 3 and 4^h.

A fogbow seen at 11^h today was triple and the outermost bow had red outside while each of ~~other~~ ^{other} two had red inside.

Today Mr James Miller arrived at Observatory and Mr A. J. Herderson went away, leaving his balance and other instruments at the Observatory. Lady and guide visited Observatory today.

1893 January 13th

126

Fog all morning: clear but somewhat cloudy and air saturated all afternoon. Some snow fell in forenoon.

Thermometer box was changed after 15th. Dry 535541 Wet 535542 and min 138533 were put out -- height above snow not altered.

January 14th

Fog on summit or passing, and squally N or NE winds all day. Snow falling in forenoon.

January 15th

Fog all day: Snow in afternoon. Wind N. backing at night to SW and temp rising.

January 16th

Mist all day with drizzling rain and ice forming on surfaces. Temperature rose quickly till 3¹¹ when it was 32°: fell slowly during the rest of the day.

January 17th Ice forming fully on all exposed surfaces in early morning.

January 18th

At 4^h the land observation sheet was blown away - mist & ice forming on exposed surfaces all day - Today Messrs R. T. Grinnell and S. Weir came up to observation & A Rankin and W. Stewart went down.

January 19th Measurements of amount of snow at night very doubtful owing to drift.

January 22^d Thermometer Box shifted at 4^h 30^m

Dry 192677 Wet 192672 and Min 138545 put out.
Height above snow not altered -

For the last few days rain has fallen frequently with
temperatures below freezing -

January 25^d No Rain gauge was put out after 20^h
but apparently no snow fell -

January 26^d Severe SSE gale in early morning -
Toner Screen used from 2^h to 6^h in daytime as the
high wind and drift made it difficult to reach
and read the Stevenson Screen. The rain gauge
was put out for the first time at 9^h apparently
no snow fell before 9^h At 9^h hail was falling,
and at 14^h snow like that which accompanies
St Elmo's Fire but no sound or appearance of
St Elmo's Fire was observed -

January 27^d Top clear at 8^h 9^h and 10^h but fog on hills
and passing - Thermometer Box shifted at 9^h 10^m
Dry 535541 : Wet 535542 and Min 138533 put out.
Height above snow not altered - at 14^h it was found
that Dry 535541 was reading low the column of
mercury being broken and 4.7 sticking up near 50°
at 14^h 5^m the Dry & wet were taken in and Dry
192677 and Wet 192671 put out - Box and Min
not shifted -

January 28th Very thick fog from 6^h to 12^h :
standing on roof it was impossible to see more
than about 10 yards = dry white fog crystals
forming rapidly - a little snow fell in forenoon
but gauges were useless owing to drift -

Eight tourists climbed Ben Nevis in January :
four of them ladies -

February 6th a snow printing was seen this morning
near the snow patch of observatory at 8^h 40^m -
Top clear at 7^h 9^h 14^h 15^h & 16^h but sky partly
covered with cum stratus and cum fog on hills all
round - clouds looked "hand packed" and windy -
Heavy rain between 20^h and 21^h and very heavy
rain about 21^h 30^m - Thermometer Box shifted
at 14^h 20^m Dry 535541 : Wet 535542 and Min
138545 put out : height above snow not altered -

February 9th Lightning accompanied with earth currents
at 19^h 40^m, 45^m, 48^m & 52^m the two last being fainter -
Lightning also at 21^h 5^m three flashes in close succession
No thunder heard - St Elmo's Fire seen on kitchen
chimney at 20^h -

No rain gauges out after 20^h little snow fell
& there was considerable drift - Lower Screen
Thermometer used from ~~20^h~~ 21^h to midnight

February 12^d Thermometer Box shifted at 1^h 28^m

Dry 192677 = Wet 192672 and Min 138533 put out. Put one stage higher on stand. - Top clear of sun 9^h to 14^h and again after 21^h but generally thin fog blowing over and air always saturated. - Air very clear to SW at 11^h though detached fog on hills to S and E. -
Solar Halo seen at 10^h

February 13^d Sky cloudless till 6^h and only cirrus till 11^h = thick fog all afternoon. Fog gathered in valleys after 6^h and gradually rose higher. - The upper glow was seen at 6^h. Air scarcely dry all morning & thin fog blowing over occasionally. - Fragment of Solar Halo seen at 8^h on cir-str. near horizon.

February 14^d Heavy gale from ESE in forenoon with very thick fog and great drift. Half hourly readings of barometer taken from 7^h 30^m to 11^h 30^m.

February 15^d Thermometer Box shifted at 11^h 10^m. Dry 535521 = Wet 535522 and Min 138545 put out. Height above snow not altered. - When top was clear today sky was partly covered with windy cirrus and cir-s and Cim. lay round horizon. Sky cloudless from 21^h to 23^h but thin fog blowing over. Aurora seen at these hours, not well defined nor very distinctly seen. - Considerable drift all morning. - W. Stewart came up today with mails etc. the first communication since this day 4 weeks.

February 18.

Glimpses of Sunshine after 10^h but top clear and air dry after 16^h till 21^h. The clearing was accompanied by a slight fall of temperature - at first fog lay on the hills round but it had broken up & disappeared by 20^h though horizon was still hazy & some cir-strat. was seen - mist or fog after 22^h a rise of temperature when the fog came on again.

February 21st

Top clear occasionally but fog hanging about the hills round always. Just after 12^h six snow buntings were seen on McLean's Steps - In the afternoon there were slight showers of snow all six-rayed crystals of regular form -

February 23rd

Thermometer Base shifted at 3^h - 20^{mm} Dig 192677 = Wet 192672 and ^{mm} 138533 put out - Height above snow not altered -

Sky apparently clear above all day, but fog either on hill top or forming a Stratus pallium just above it -

In the middle of the day Cum-fog was rising fully from Glen Nevis & passing along summit - Lunar corona seen at 21^h

February 24th

Sky apparently clear but mostly thin fog on summit or stratus just above summit and cloud on or over hills round - Very calm all day - a few streaks of cirrus at night moving from Eastward -

1893 -

131

February 25th Sky pretty clear but thin fog on hill top most of the day - Lunar Halo seen at 4^h and Lunar coronae most of the evening - Glories, some double seen at 17^h

February 27th When top cleared at 10^h fog lay on hills to NE and continued to pass over the summit at intervals all day - but there was no low lying fog in the valleys -

No Strangers climbed Ben Nevis in February -

March 1st Top clear but sky covered with ugly looking cirro-stratus from 2^h to 9^h gale from SE from 6^h to 10^h with heavy drift but air dry 7^h to 9^h at other times thin fog passing - Lunar halo 2^h to 5^h Noraingunge and till 11^h but little or ~~no~~ no snow fell -

March 2nd Thermometer Box shifted at 12^h 15^m

Dry 535541 : Wet 535542 and Min 138545 put out. Height above snow not altered -

Top clear at 12^h and 13^h but detached cum-fog among hills -

Top clear again after 18^h No fog fog below though at times thin fog passing and sky getting gradually covered with Cirro-stratus Strong SE wind rising after 20^h Lunar halo from 22^h onwards -

March 5th Thermometer Box shifted at 4^h 20^m Dry 192677
Wet 192672 and Min 138533 put out. Height above snow not altered -

March 7th Top clear and air dry for a short while in afternoon but fog on a over hills round and horizon cloudy - The snow at First Gorge was measured this afternoon & found to be over hanging the edge 240 inches (20 feet). When measured last year { 22nd May 1892 } it overhung 312 inches (26 feet) -

March 10th Measurements of snow fall in morning very doubtful owing to drift. at 9^h the gauge was found blown over on its side & that snow fall was lost. Thermometer Box shifted at 13^h 15^m Dry 535541 : Wet 535542 and Min 138545 put ~~for~~ out: height above snow not altered.

March 11th Drizzling rain began at 6^h when temperature was 27°0 and the temp only reached 32°0 at 20^h and 21^h being below freezing the rest of the time and heavy rain falling, coating every thing with ice -

March 13th Thermometer Box shifted at 0^h 35^m Dry 192677 Wet 192672 and min 138533 put out. Height above snow not altered - At 5^h a light was seen above the horizon to ENE. possibly the zodiacal light.

March 14th The snow which fell at night after 20^h was heavy and hard and did not drift much -

March 15th Thermometer Box shifted at 3^h 25^m - Dry 535541 Wet 535542 and min 138545 put out. Height above snow not altered - New timer thermometer No 50951 put out at 17^h 10^m for the first time

1893

133

March 16th Top covered with deep soft snow all day but little drift as winds were light.

March 17th Thermometer Box shifted at 7^h 20^m. Dy 192677 Wet 192672 and Min 138533 put on. Height above snow not altered. Top cleared first at 7^h fog on on hills to E^h and again on Ben Nevis at 12^h. Faint Solar Halo seen at 10^h.

March 18th Thin fog till 8^h top clear after that but air saturated till 19^h dry afterwards. Fog on hills or passing till Noon. No fog below after that. Air clear in afternoon Rum Mull & Jura seen. After 17^h the upper joint was put on Thermometer Stand No 2. The box was taken off while fixing the upper joint but was replaced at 17^h 25^m. Same box & thermometers as before, height not altered. at 19^h the afterglow was seen and at 20^h the Western horizon was still red with sunset colours.

March 19th Sky cloudless except for some passing cumulus in forenoon and cirrus and cir-cum in middle of day, but fog on hills round at about 3000 feet all day, which covered Ben Nevis also at 23^h and midnight.

March 20th Mist & drizzle till 11^h after which the fog layer was just below or on the summit till 15^h and above it as stratus or as dry fog after that hour. at 11^h a fog horn was seen,

1893

134

and again at 13^h. - as 11^h snow hunting seen near doorway -

March 21st

Sky clear except for a little cirrus & cirro-cumulus haze in valleys up to about 4000 feet, with in morning patches of fog among it. SW wind force 2 to 3 all day which was apparently not felt below the top of haze -

March 22nd

a snow Bunting was seen again this morning at 11^h. Haze in valleys today but thinner than yesterday & apparently extending to a greater height no top being apparent, Pinn. Sky Mill etc were seen through the haze & no hill tops rose above it as the higher summits did yesterday -

March 23rd

Thick haze all round all day Ben ~~Chau~~ Ennackan being about the furthest visible hill. Faint Solar Halo seen at 15^h and protuberances of Lunar Halo at 23^h and Midnight -

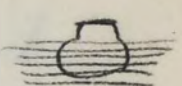
Today Mr J. Rennie visited the Observatory the first stranger since January 2nd

March 24th

Thick haze all round all day, rather thicker than yesterday - Some heather burning going on - Fog on summit 5^h to 9^h but rain & snow - Fog on lower hills & in valleys afterwards till Noon. The snow is soft on the surface and distinctly thawing away now -

1893

March 25 Cloudless sky but thick haze all round till 8^h. The sun when rising above the haze was distorted, somewhat as in diagram.



The haze continued and the sky was cloudy till 16^h after which it was mostly fog.

March 26th misty & drizzle in morning, fine later but haze all round. At 20^h 25th strong earth currents began to affect the telegraph and from 21^h to midnight an aurora was observed. It was brightest at 23^h when there was an arch whose under side rose about 12° above horizon, and streamers reaching at times to about 70° altitude. The arch & streamers were very unsteady & sometimes streamers appeared below the arch. The arch was white in colour & the streamers occasionally tinged with green. The earth currents in telegraph wire were intermittent but it was not noticed whether they coincided with brighter displays of the aurora or not.

March 28th air hazy, partly due to heather burning.

March 29th Aurora seen at 2^h single arch no streamers. Lunar corona formed on high circum at 3^h small & badly defined. Thick haze all day. Solar Halo visible from 8^h to 13^h Mock Sun at 11^h: it was distinctly outside the halo.

1893

136

March 30 Top clear 17^h to 19^h but sky covered with cirro-stratus. Solar Halo seen at 17^h

One tourist climbed Ben Nevis during March.

April 3^d Top cleared after 20^h leaving cloudless sky and fog on the hills - The storm rose shortly after 22^h and it was then seen that the valleys were full of Stratus fog at about 2000 feet - Faint Aurora seen at 22^h and 23^h

April 4^d Hazy all day - Fog in valleys at about 2000 feet till 9^h more after that - Sky cloudless except for some cirrus in afternoon and evening - Some of these clouds near the horizon looked like detached elevated patches of haze -

April 5^d Thick haze all day - in forenoon so thick that the hills at the other side of Glen Nevis were barely visible, but sky almost cloudless and air dry -

April 6^d Hazy all day - at 15^h - 37^m a peal of thunder, was heard and thunder clouds at about 4000 feet height were evidently hanging about the hills to E^W - From 18^h 30^m to 21^h 20^m there were frequent peals of thunder and flashes of lightning and rain fell heavily especially from 19^h to 21^h - St Elms fire was seen on kitchen chimney at 20^h 35^m and at 21^h Rain was falling heavily at the time

and the summit was free of fog - The storm was accompanied by strong earth currents in telegraph cable, a click of the needle occurring simultaneously with each flash - The flashes followed each other at intervals of from one minute upwards and in some cases only about 2 seconds intervened between the flash and the following thunder - No discharge took place inside the observatory and no damage was done - No outside observations were taken at 19^h 20^h and 21^h - the rain fall for this period was measured at 22^h and divided by estimation over these hours -

April 7th at 5^h fog lay over the hills to N and E at from 3000 to 4000 feet - this continued all day and frequently it rose and covered Ben Nevis also -

April 8th Fog on hills round till 9^h From 10^h to 13^h detached fog rising out of valleys to S^h after that no fog in valleys but haze, the latter due partly to burning heather -

April 9th Sky cloudless except for occasional scattered clouds at horizon but slight haze all round. No fog below -

April 10 Cirrus gathered on the sky at 3^h lying in "Noah's Ark" form pointing ENE and WSW. A Solar

Halo was seen at 7^h - No fog in valleys till 5^h but after that detached fog among hills till Noon and fog on summit all afternoon - slight drizzle of snow after 15^h

April 11th

Fog cleared off summit at 5^h but continued in detached portions on the hills round till Noon, after which it rose clear of them and formed cumulus overhead till sunset, but from 20^h onwards the sky was clear - air very clear except to S^W in afternoon - Aurora seen 22^h 23^h and Midnight, a single badly defined arch, no streamers -

April 12th

Sky cloudless except for a little Cirro-Cum till 7 am; but fog in valleys which rose and enveloped Summit thereafter slight showers of snow fell during the evening - Aurora seen at 1. 2. and 3^{hrs}

Today Mr Charles Stewart arrived at the Observatory and Mr R. P. Stenard went down

April 13th

Sky clear after 2^h leaving sky cloudless and fog on hills all round to 4000 ft till 10^h after which it rose and formed cumulus overhead, but in the afternoon the clouds came down again and enveloped the Summit after 16^h - but clearing at times in the evening

April 14th Mist or fog with slight showers of snow in the afternoon

April 15th Fog and mist with showers of snow sleet + rain

April 16th Snow fell till 14th. Light W.S.W. winds in morning and backing to ESE in the afternoon. Temperature fell from 30.7 to 23.0 between 15 and 16th and continued falling slowly the rest of the evening

April 17th Temperature very low in early morning and till noon but rising briskly in the evening. Mr Jackson Telegraph Lineman came up today and touched up Battery and Instrument.

April 18th Mist all day except at 22nd but sky nearly overcast with Cum: Showers of rain fell throughout the day

April 19th Summit cleared after 4th but sky overcast or nearly all day with Cir and Cirro-Stratus and in the afternoon loose snow and fog passing frequently over the hill top in the evening. Thick haze all round in the afternoon. A Solar Halo Seen at 12th 30

April 20th Sky cloudy but fog on or over hills all round and at times rising and enveloping Summit. At 21 + 22nd sky was cloudless but thin fog passing: Air dry all day except at 3rd and 10th: St Elmo's Fire seen at 2nd on kitchen chimney and tower. Thunder peals heard from 16th 15th to 16th 50th down to South East.

1893

140

April 21st

Thick haze all day. Fog lay over hills all round till noon and breaking up into detached Cum-fog to W. N. + S, and in the evening fog was all gone: Sky nearly cloudless all day: In early morning Thermometer Bot and roof of Observatory was completely saturated with dew:

At 0^h 15^m Thermometer bot was lowered one step, height above snow 48 inches a little Bird. (Robin Red breast) was seen on Office roof at 5^h: Today Three Tourists visited the Observatory

April 22nd

Temperature high all day, highest hourly, reaching 52.5 at noon: Sky cloudy after 2^h and till 21^h Cloudless thereafter: Haze around all day: No fog in valleys Today, Seven Tourists visited the Observatory

April 23rd

Sky cloudless down to horizon all day, except for a little Cirrus on E^{nm} horizon at 17 and 18^h: Haze all day thicker to W in the forenoon

April 24th

Light S and SSW winds till 1 pm and calm the rest of the day: Sky cloudless all day except for a little Cirro-Cum from 18 till 21^h Haze all day: No fog below

1893

141

April 25th

Sky cloudless till 7th but some Cirrus above horizon to E and SE, sky cloudy thereafter till 18th almost overcast till 20th and fog the rest of the evening, but moon seen gleaming through the fog at times. Fog lay over Loch-Eil and in valleys to N in the early morning. Calm till 9th but light variable airs there after chiefly Southerly.

Thermometer Box was lowered one step on ladder at 0th 15th m

April 26th

Fog or overcast sky till 21th but sky cloudless since, leaving detached cum fog on hills around. Air slightly ^{warmer} from 9th till 16th and ^{again} after 21th: At Melt humidity was 47: Today has been much colder: temperature falling steadily all day except for a slight rise about noon but in the evening after fog cleared off Summit the temperature rose rather quickly: A Solar Halo seen at 11th and a Corona at noon: An aurora seen at Melt, a well defined and complete Arch extending from a point E of NE to W & S. No streamers were seen: Judging from the appearance of the Arch, this would

— be a magnificent aurora, but sky being very bright (nearly full moon) details could not be distinguished

April 27th

Sky cloudless till 4th but cloudy thereafter with Cum. Cir-Cum and Cir-S till 16th mist and fog the rest of the day: air very dry and clear in the early morning. Lowest humidity was 38 at 3th: detached fog lay over hills all day: slight showers of sleet fell after 23th:

Aurora seen at 1th with single arch and streamers shooting to the Zenith: A Halo at 13 and 14th:

Today Stewart brought up a horse for the first time this year: Four Tourists visited the Observatory today

April 28th

Fog all day with showers of snow and hail: Very variable air chiefly westerly and temperature very steady about 28° all day

April 29th

Snow fell almost all day:

April 30th

Snow and showers of hail all day: Thermometer Bar raised one step on ladder at 0^h 15^m 3 Tourists visited observatory today
27 Tourists climbed Ben Nevis during April

1893

143

May 1st

Fog clearing of Summit at times in the forenoon, but after 20th top quite clear of fog. Sky about half covered with Cirro-stratus, and fog over hills all round. Air dry at 2 3rd and Mdt humidity about 80.

May 2nd

Sky overcast with Cirro-stratus and air dry till 9th. Fog and mist thereafter with slight showers of snow hail and drizzle. Air very clear in the early morning, but exceptionally clear to NE

May 3rd

Summit clear at 16 and 18^{hrs} and air dry but sky overcast and dense detached Cum-fog on hills. Weather much warmer today; Max temp in shade 38.5

May 4th

Top clear after 17th but sky overcast with Cir and Cir-Str and heavy strata Cum-fog above horizon all round and detached Cum-fog on lower hills and thin haze in valleys after 21th no fog was seen below. At Mdt fog was on Summit again. A Solar Halo was seen at 18 and 19^{hrs} with Mock Sun. Thermometer Bot was lowered one step on on ladder at 0th 15th.

1893

144

May 5th

Ani day after 4th Sky overcast all day but clearing somewhat in the evening. Patches of fog lay in valleys most of the day and at times rising and passing over Ben Nevis. A strong South and southeast breeze blowing all day. Haze all round: A Solar Corona seen at 11 and 12^{hrs} and Solar Halos were observed at 10, 13, 18 and 19^{hrs}

May 6th

Sky overcast all day. except at 5 and 6th when fog was on Summit; after 20th sky began to clear and was almost cloudless at mid. In the early morning fog gathered in valleys to SE and S, but during the forenoon this all disappeared and no fog was seen in valleys after 6th. Thick haze around all day. Solar Halos were seen at 8 and 17^{hrs}

May 7th

Strong SE winds all day increasing in force to a moderate gale in the evening. Temperature falling insistently all day. Fog lay in valleys S and E in the early morning and blowing over Summit till 9th but sky was almost cloudless till 21th but fog off and on Summit

1893

145

thereafter. Cir-str above horizon to W and NW. almost all day. and haze all around. The Visitor up to day

May 8th

The strong SE⁴ winds of yesterday continued to blow till 2th and moderating in force to a light breeze to night. Fog and overcast sky or nearly so all day. with occasional sunny intervals in the forenoon; after 22th fog cleared off Ben Davis leaving sky cloudless. Solar Halos were seen from 9 to 12 ^{hrs}

May 9th

Sky pretty cloudy during the day but after 20th sky was cloudless. The thin Cirro-Stratus which covered the sky. Solar Halos were seen on it from 6^{hrs} - 16^{hrs}. Aurora seen at 23^{hrs} and Mdt. no streamers were seen. After 16th today a set of Thermometers was put out in Summer Box (N^o 2) and readings taken of both sets up till Mdt; after Mdt small box readings were discontinued and big box came into hourly use. - 535541 and 535542 in big box and 192677 and 192672 ^{in small box} after 21th the max 117293 and min 116918 were put into big box.

The double set of readings are entered below

	Small Box		Big Box		Difference	
	dry	wet	dry	wet	dry	wet
#	192677	192672	535541	535542		
17	46.6	41.9	46.0	41.3	-0.6	-0.6
18	45.1	41.0	44.8	40.7	-0.3	-0.3
19	45.2	41.0	44.6	40.4	-0.6	-0.6
20	43.0	40.0	42.2	39.7	-0.3	-0.3
21	41.3	39.2	41.0	39.0	-0.2	-0.2
22	40.1	38.2	39.9	38.0	-0.6	-0.5
23	40.1	38.0	39.5	37.5	-0.9	-0.6
24	39.9	37.6	39.0	37.0	-0.5	-0.4

1893

146

May 10th

Aurora seen at 1st there was no arch and streamers were just visible. Solar Halo formed on Cir-Str and were observed from 6th to 12^{hrs}; Haze all round all day. After 18th mist came on with slight drizzling rain the rest of the evening

May 11th

Mist all day with slight drizzling rain in the forenoon heavy rain in the evening. Snow has all disappeared from Snow-Gange but there are patches still of snow on Summit of varying depths

May 12th

Mist all day. Variable West and North West breezes all day. Heavy rain till 18th slight drizzle thereafter

May 13th

Mist cleared off and sank below Summit after 8th leaving cloudless sky till 13th but rose again to level of Ben Nevis and blowing over the Summit all afternoon till 20th continuous fog thereafter. Today Messrs G. R. and J. Y. Buchanan visited the Observatory

May 14th

Summit clear after 3rd but sky very cloudy till night with Cirrus and Cirro-Str on which Solar Halos were seen from 8th till 13th; after 22nd sky was cloudless; but at Mt there was fog in valleys to SE and a little blowing over Summit at times. Variable W and SSW breezes till 14th

1893

147

— and calm till 18th light S E^{ly} which thereafter.
 Today 12 Tourists visited the Observatory

May 15th

Temperature high and air dry all day. Sky very cloudy or almost overcast with Cir and Cir-Str on which Solar Halos formed almost all day. But fog in valleys to N and E in the forenoon but after 13th no fog was seen below. A little fog was seen on hills to N. E and S at 19th and during the rest of the evening. Thick haze around all day. Solar Coronae seen at 11 and 12th

May 16th

Sky overcast all day except at 19 and 20 when fog enveloped Summit and air S. at those hours. But fog in valleys all day and thick haze all round. Slight showers of rain fell in the afternoon. Solar Halos seen at 11 and 12th

Two Visitors up to day.

May 17th

Sky cloudy or overcast with Cir-s till 6th fog and mist thereafter but summit clear at times in the afternoon and thick Strata-Cum fog on hills to E + S. Slight showers of rain fell in the evening. Solar Coronae seen at 7 and 12th

1893

148

May 18th

Mist or overcast sky all day, with slight
Showers of rain till 14th fair thereafter

May 19th

Mist or fog all day except at 14 & 15th when Summit was clear and sky half covered with Cum and Cum all round above horizon. Showers of rain all day.

At 15th 30^m a peal of thunder was heard down to SE; at this time Summit was clear but the appearance to the SE was very ugly. Thick banks of Cum-str, and below this nimbus just tipping hill tops came rolling up and at 15th 45^m enveloped Summit accompanied with a heavy shower of hail and rain. The mist on the Summit at this time was very thick and inside the Observatory was very dark and this continued till 16th 10^m.

May 20th

Mist till 16th; Summit clear at times thereafter but sky cloudy or overcast with Cum-S and nimbus with heavy showers of rain. The general appearance of the sky to the SE and W^d was very thundering like.

Earth currents in Telegraph Cable in the afternoon, a click of the needle of Telegraph Instrument was heard at 16th 30^m. No lightning was seen and no thunder heard.

1893 May 21st

149

Mist or overcast sky all day with light showers of rain and hail. Temperature pretty low all day and much colder than has been experienced during the past fortnight. The temp at melt being 32° . Thunder was heard frequently from $11^{h}50^{m}$ till $15^{h}40^{m}$ but no lightning was seen. During the above time strong Earth currents were observed in Telegraph Cable and causing the needle of Telegraph Instrument to click at the same time.

May 22nd

Strong gusty SE wind after 22^{h}
Mist and overcast sky all day.

May 23rd

Variable gusty W and SW^o winds all day
Mist all day with heavy rain in morning and slight showers of hail and drizzle in afternoon.
Strong earth currents in Telegraph Cable all afternoon and Instrument clicking frequently.
One Visitor up today.

May 24th

Mist or fog all day with heavy rain in the morning and slight drizzle in the evening.
Today two Tourists visited the Observatory.

May 25th

Mist all day with showers of rain and hail till 8^{h} fair thereafter.
Two Visitors up today.

1893

150

May 26th

Mist all day with slight showers of drizzle in the forenoon.

Today Mr. Buchanan and three others visited the Observatory.

May 27th

Mist and showers of drizzle throughout the day

May 28th

Mist all day with slight drizzling rain in the forenoon

May 29th

Mist or thin fog till 9th: clearing thereafter but sky cloudy for rest of day and fog occasionally passing summit in afternoon.

Fall in temperature at night.

Today Mr. A. Rankin arrived at Observatory and Mr. Miller went down to L.L. Observatory.

May 30th

Summit clear and air dry almost all day. but temperature low throughout and falling decidedly at night. Fog below level of summit to N^o and E in early morning. which by midday all disappeared leaving the air very clear in every direction.

May 31st

Fog, mist or overcast all day. Showers of snow in forenoon and drizzling rain at night. Temperature very low in morning, but rising a little during the day.

1893 June 1st

151

Summit clear most of the day, but sky cloudy.
Temperature a few degrees higher than during last-
two days.

Solar Halos seen at 5th and 18:45th

June 2nd

Air was dry - humidity 92 to 99% - today the moon
although a thin fog covered the summit all the
time. This fog cleared off in afternoon but came on
again at night.

Thick haze all round in evening.
A solar halo was seen of very thin filmy cirrus
at 15th and 19th

June 3rd

Mist or fog, or cloudy sky all day with thick haze
all round.

The wind veered from SE in early morning to SW by 7th
but backed to S again at 12th.

A heavy shower of rain fell between 14th and 15th.
At 20th the readings were taken 3 minutes late.

June 4th

Mist with showers of rain hail and sleet-
all day. Wind veered from SW in forenoon to
W and NW in evening.

The telegraph instrument was short-circuited
from 20th 20th till 21st 25th, Cause of obstruction
unknown.

June 5th

Fog cleared after 4th and remained clear all
day, but detached fog lay around below all forenoon
but rose clear of hills in afternoon. The wind
backed to S and SE in forenoon from being NW or N till 5th.
The Robinson Anemometer was dismantled today.

1893

June 6th

152

Summit clear till 3^h and no fog below, but sky overcast, except for a clear strip at NE horizon which at 3^h was gorgeously colored as was also the lower surface of cloud. The clouds fell to level of summit by 4^h and enveloped it as a wet mist with drizzling rain till 19^h. After this the top was clear at times but air not dry. while the sky was overcast and all the hills below were covered in mist which occasionally rose and covered summit also. The wind veered from SSE in early morning to SW by noon and WSW by 19^h. at and after 20^h it was Calm. Temperature very steady today 41 to 45.

June 7th

Mist or fog almost all day. In the clear intervals the sky was observed to be heavily overcast and there was thick haze all round and broken patches of fog on lower hills.

Temperature high and steady 41 to 47°.

June 8th

Mist in early morning and a little fog in evening. Sky almost cloudless in forenoon but heavily clouded with Cum. and Cum - s in afternoon. Thunder was heard in distance from 19^h to 20^h. and a heavy shower of rain fell between 20^h and 21^h. Thick haze all around all day. Temperature high. being over 50° from 11^h till 17^h.

Black Bull 186 (max) was brought up from L.L.O. today; and at 19^h was mounted on bracket stand on post to SE of Thor. box. It was set at 22^h.
Horses up today with first installment of winter stores.

1893 June 9th

153

Summit clear till after 22^h when a thin dry fog which did not saturate the air hung about the hill top. In the early morning (till 4^h) the sky was almost cloudless and thick haze was all around and below. There was also low in valleys a layer of str. fog. In the course of the forenoon this fog rose gradually in large cumulus masses, and by 14^h it was clear of hills. The haze which it left behind in valleys was not so thick as the haze in morning. In the evening the cum. layer gradually sank again passing ~~down~~ the summit downwards at 18^h, 19^h and 20^h. At 21^h the sky was almost cloudless - the cumulus being all below level of summit. At 22, 23 and 24^h fog hung about the top.

Very warm all day - temperature over 50° from 12^h to 18^h.
The Black bullock was out all day and registered 132.8

June 10th

Cum. fog all round below and hanging about hill top and occasionally enveloping it till 11^h. Thereafter the clouds rose clear of hills leaving haze but no fog in valleys. The Cum clouds above all but vanished by 20^h but a stratum of cum - s came up from SE thereafter and covered sky at 21^h and 22^h. This also soon vanished and at 23 and mid. the sky was cloudless except at and near horizon to E and S. Sunset at 21^h 19^m behind a hill to N of Cuckullin Hills.

No green flash seen.

Spectrum colours in N² sky all night. At mid. a distinct slightly pinkish afterglow filled to N² sky above the spectrum colours - 20° to 45°.

June 11th

Summit clear all day except for a little fog at 9^h. Sky cloudless till 4 am, but cloudy during the rest of the day with various forms of cum. All evening the cum. clouds were of the real summer type - large

1893

filed up masses that looked very grand.

Haze below all day, which thickened after 17th and 154 so much as to reduce visibility to 0-1. At the same time cum. began to form in it below level of Summit. From 20th the general appearance all round was gloomy and thundery.

Temperature high all day, max being 57° 9, and the hourly readings were all above 50° from noon till 21st. Black bulb registered 134° 3.

[From 40 to 50 Fortwilliam people were up in early morning seeing sunrise]

June 12th

Summit clear except for a little fog passing at 17th. Sky only slightly clouded till 8th and cloudless after 22nd but heavily clouded during the rest of the day with heavy thundery looking cum types.

Thick haze all round all day.

Showers of rain fell in evening.

Distant thunder was heard in various directions from 14th 45^m to 19th but no lightning was seen

June 13th

Cloudless till 6th; cloudy till 10th and heavily clouded sky with thundery cumulus till 19th. Cloudless again at night. Thick haze below and all round all day, with in early morning low str. fog on belds and river crosses.

Distant thunder was heard from 13th till 17th. but at 18th and till 18th 20^m the thunder cloud rested on summit when several peals of thunder were heard close overhead and the lightning was very vivid. The last flash of lightning seen came into Observatory and a loud report was heard in office. The same flash took to the telegraph wire and fused the

1893

faces of the lightning protector plates. The same thing was done by same flash at 155 Fort William. Thereby the instrument on top was shortcircuited till 20^h 50^m.

June 14th

Sky almost cloudless till noon = slightly clouded during the rest of the day. Fog low down in some valleys and on rocks and rivers in forenoon, rising later on and by noon the valleys were clear. Thick haze all around all day.

Temperature high and air dry all day. Humidity ranging from 62 to 96 per cent.

Steady SE breeze all day.

The telegraph instrument at F.W. being foul there was no communication with P. Office today from 13^h pm to 19^h 20^m pm.

June 15th

Sky slightly cloudy in forenoon, but almost overcast all evening.

Thick haze all around all day: and low fog to E^o and S^o in forenoon.

Solar Halo seen at 16^h.

Telegraph wire faulty - communication cut from 15^h till after 21^h 30^m.

June 16th

Fog or mist all day with drizzling rain in evening. but temperature high and steady.

Wind veered from S in morning to W and NW at night.

Telegraphic communication entirely cut from 4 pm to 9 pm.

1893 June 17th

156

Sky cloudless almost all day. Thin fog passing the 7th air dry during the rest of the day. Cum fog all round below the 18th. Thereafter it disappeared: but at 20th low Str. fog was observed on Atlantic about Mull. This gradually crept eastwards and by mid. there was a low stratum of fog below 1000 ft in valleys in every direction. Air much clearer today than during last week. V being 3 though there was a thin blue haze all over the hills.

Telegraphic communication very faulty all day.

June 18th

Sky cloudless till 22nd. Fog in valleys or hanging about the hills most of the day. This fog in early morning was a low Str. stratum in valleys: later in forenoon it gradually broke up into cum types but did not rise higher than level of summit. This cum type on sinking in evening gradually disappeared except to NE and E^d (where the cum continued to form and rise) but a fresh stratum rolled in into all valleys from W. as it did yesterday but quicker. After 21st the stratus fog gradually rose and at 22nd it was passing summit. At 23rd and mid. the sky was overcast with cum-s. and the fog below was broken up into detached patches.

Very little haze all day.

Temperature high all day, all except the mid. making being above 50°. and from 9th till 18th it was above 60°. Calm or almost so till 21st when a northerly breeze set in.

Mr. J. Muller and friend visited observatory at sunrise

1893 June 19th

157

Sky almost cloudless till 5^h, but mist or fog in valleys which rose and covered summit also from 6^h till 14^h. The fog cleared then and the sky gradually became cloudless: till at 22^h a stratum of fog came up from W all over the country to level of summit, which at mid^t, it covered also.

Air pretty clear all evening V3. Solar Hatz seen at 16^h.

Temperature falling all day. at mid^t it was 35°.

Telegraphic communication faulty all day. So much so that the usual daily report could not be sent to papers after 8^h 21^h.

June 20th

Fog on or passing over summit all day. Till 8^h it was of a misty nature but thereafter it became a dry fog. The stones of hilltop were quite dry all day and from 9^h till mid^t the hygrometer indicated a slight dryness of the air.

Temperature low all day. 33° to 39°. Light N^{ly} winds all forenoon: Calm or almost so all evening.

[The Hotel was opened for the season today] Telegraph faulty all day - current very weak when any communication could be got. The lineman was up testing and cleaning, but found no fault on summit.

June 21st

Fog cleared after 2^h and sky was pretty clear till after 4^h but haze and broken fog below all round. After 4^h and during the rest of forenoon fog hung about the hilltop. It rose clear of summit in afternoon, but came down again after 10^h.

Although a thin fog was frequently on hill 158
top today the air remained slightly dry
Temperature slightly higher on the whole than
yesterday: but there was hoar frost on the roof
at sunrise
Telegraph still faulty

June 22nd

Calm all forenoon with mist and drizzling
rain and temperature ranging from 36° to 39° .
After noon the temperature began to fall, reaching
 32° at 18^h and 30° at midⁿ.
Heavy rain accompanied the fall of temp till 15^h pm
when it changed to snow and sleet. which
fell heavily during the rest of the day.
A Northerly breeze began to blow at 15^h which
quickly rose to a strong squally breeze.
which continued during the rest of the day.

During the last four days ~~Weggs's~~ well stopped
running and was almost entirely dry. This
morning there was only about two days' supply
of water on Summit. but by 14^h the well
was full and flowing freely.

The telegraph instrument was very faulty at
night.

June 23rd

Temperature ranging from 30 to 33 today.
Mist all day, with heavy snow till 1 pm and sleet or
drizzling rain thereafter.

Barometer pumping mildly all day.
Squally N^h winds force 2 to 6. throughout
Summit well covered with snow.

Telegraph instrument still very bad.
Black bulb could not be set. Last night nor today.

June 24th

Mist all day, with drizzling rain and slight showers of sleet and hail at times.

The wind became less squally, after 3rd, but continued rather gusty and variable all day.

Temperature low 32 to 35. and snow still lying on summit.

The telegraph instrument was useless all day. Several public telegrams had to be refused.

June 25th

Mist or fog all day, with slight drizzling rain and sleet in forenoon.

Light variable North to Northeast winds all day, slightly squally in morning.

Temperature much the same as yesterday 32 to 35. Snow still lying on summit.

Signals on telegraph instrument very bad. almost unreadable at night.

June 26th

Fog or mist till noon, with slight snow and drizzle in morning. Summit cleared in afternoon and till 22nd the air was very clear in all directions (V4) but the sky was somewhat cloudy. After 22nd a dark ugly cloud came up from S^W with haze below, and fog was passing summit at 23rd and mid^{nt}. Wind very light or Calm all

1893

forenoon: backing to S. by 16th and to SE by 20th and increasing in force to a brisk breeze. 160

The radiating points of Cirrus bands on sky at 19th were W. and E. well marked.

Telegraph wire working very badly today. An 'A. B. C.' inst: was brought up and tried but no signals could be transmitted thereby.
A new coil with needle compass was also brought up.

June 27th

Sky overcast and fog passing till 2th. Thick fog or mist - chiefly mist. during the rest of the day. Strong South ESE breeze (6) in forenoon. moderating in afternoon and evening to SSE.

Drizzling rain in morning and heavy showers after 19th.

Temperature higher today than for some days past being 43° to 45° all afternoon.

No improvement in telegraph wire.

June 28th

Mist or fog almost all day - with slight showers of rain both in forenoon and afternoon.

Temperature pretty high and steady 43 to 47. SE breeze in forenoon - Calm or variable airs in afternoon.

This evening the usual report was not sent to papers owing to telegraph communication breaking down no signals being got from either Post Office or Low Level Observatory ~~after 5th pm~~ after 17th.

June 29th

Mist till 23th. when summit cleared - the mist falling below level of top and sky cloudless overhead.

Heavy showers of rain in morning and slight drizzle most of the day.

Temperature falling slowly all day.

1893

Today Mr Richards, and two linemen were testing the cable. They found it sound ^{down} to where it crosses the Red Burn, where a fault was discovered. The signals from there to the top were very good, but communication has not been established to Post office or Low Level Observatory yet. The usual report was not sent to paper tonight

161

June 30th

Sky cloudless except for a little cirrus at 5^h 46^m and again after 21^h.

Fog fell very below in early morning, but gradually vanished in the course of forenoon, leaving thin haze in valleys till 19^h when a thick haze bank was seen approaching from SE and S². This haze was all around by 22^h and reduced V from 3 previously to 1 at and after 22^h.

Air very dry from 4^h till 9^h, but the humidity rose to about 90 at night, and at midt. fog was forming in glens to S² and occasionally passed Summit.

Wind backed gradually till 11^h to SE and increased in force during afternoon.

Telegraph communication was opened with F.W. Post office this evening, and the report was got off at usual time. The cable was found badly damaged between Red Burn Crossing and Achimkee.

July 1st. Summit clear, and air dry and warm all day - the temperature in afternoon being up to 57° . Thick haze all round ~~the~~ all day with some broken cum-fog among it to E^d and S^d. Moderate breeze in morning and again at night chiefly from SSE.

A solar halo was seen at 5th.

The telegraph worked all right today both to Post Office and Low Level Observatory. Mr. J. Miller and Party up at sunrise.

July 2nd. Fog or mist on summit from 4th till 11th, and fog hanging about hill top and passing at times till 20th. Sky much cloudless thereafter. Thick haze below in early morning and probably all day, though it could not be seen with fog.

The small summer pattern of old rain gauge with screw plugs, having a new rim fitted on was put out today.

July 3rd. Top clear, but sky cloudy and fog and haze all round below all forenoon. Overcast and mist on summit with heavy showers of rain in afternoon.

Dew on roof in early morning. Calm almost all day, and temp. high and pretty steady.

Today Messrs. J. D. Craig, and R. M. Duggan arrived at Observatory - the former as observer and the latter as telegraphist. (15th observation made 3 min later)

July 4th Fog & mist on or passing over the Summit till 20th; but clearing a little at times in the afternoon. At 21st the fog sank below level of Ben, leaving sky almost overcast with Cir-Str, air ~~was~~ slightly dry since noon. Very light ESE³ breezes almost all day, turning to SE & increasing slightly in force at night. Temperature high & pretty steady: 44 to 52. A Fogbow & Glory were seen at 12.30.
 Mr A. Rankin left the Observatory this morning.

July 5th Top clear all day but sky overcast till 9th; it then gradually cleared & after 14th the sky was cloudless except for a very little Cum. forming & reforming in it. Fog all round in morning to about 4000 ft; this gradually sank & finally disappeared at 14th leaving a thick haze in valleys which diminished somewhat later in the day. At 21st str-fog began to form in valleys to N & E, among the haze. Temperature highest ^(47 to 56) & air dry all day; all the readings from 8th to 23rd being above 50° except at 21st & 22nd when it was over 49°. Lowest Humidity 66 at 7th. Moderate SE³ breezes all day.

July 6th Sky almost cloudless till 3th except for a little Cirrus which gradually overspread the sky, & in the afternoon it was completely covered by dense, hard-packed Cir-Stratus, & continued so to the rest of the day. Haze & fog a little Stratus-fog in valleys in morning which cleared somewhat in the afternoon when the Visibility was barely 3. After 15th the haze increased very much & at 21st fog began to form in it to the E & S. Temperature high & pretty steady: range 47 to 53. Moderate SE³ breezes veering to the South after 18th.

July 7th Cloudy or overcast sky all day, with fog passing at times till 11th. Yesterday's very thick haze continued all day, reducing the Visibility to 1. At 19th there was observed ^{to the S} a layer of lumpy, thundery-looking

1893

Cumulus, from which, loose sand came drifting over 164
our sky, whilst the horizon was covered, all round, with
dense hard-packed Strato-Cirrus. At 22^h 30^m, lightning was
observed illuminating the whole of the Southern horizon,
each flash being followed by a peal of Thunder. By 23^h
the sky was overcast with Cumulo-Stratus & very heavy
rain began to fall shortly afterwards, whilst St Elmo's fire
was seen & heard from the tops of every post, ladder,
anemometer as well as Observer's pencil, cap &c.

~~Between 23^h & midnight~~ Between 23^h & midnight
frequent flashes of lightning were seen playing all round
the Ben, each followed by a peal of Thunder. The storm
by this time appeared to have passed over us away to
the N^W & nothing was seen or heard till 0^h 45^m when
very vivid flashes, ^{followed by thunder} began to play in the neighbour-
hood of the North Cliff & continued to be seen till
2^h 35 min on the 8th. All through the storm the Tele-
graph Instrument was clicking loudly, as many as
8 & 9 clicks being heard at one time: the last occurring
about 2^h 45 min on the 8th. By midnight the wind which had been S by E of
a slightly squally nature all day, increased somewhat in
force & began to blow in fitful gusts from the SE.
Air slightly dry all day, lowest Humidity 81 at 15^h, 19^h & 20^h.
Observations taken as usual. St Elmo's Fire observed at each
~~from~~ from 23^h on 7th till 2^h 30 min on 8th. No flashes inside.

July 8th

Sky cloudy or overcast with mist on or pass-
ing over the Summit all day, & thick haze all
round. Temperature falling slightly to 51° to 49° till 6^h
after which it rose to 57° at 11^h & fell slowly the rest
of the day to 47° at Midnight. Air slightly dry from 6^h
to 14^h but saturated the rest of the day except at 18^h when
the Humidity was 99. After 10^h strong Earth-Currents
were observed in the Telegraph Cable, causing the
Needle to click repeatedly, & showing that the Atmos-
phere was still in a state of Electrical disturbance
at noon & 13^h very heavy Cumulus clouds & thick haze

1893

were observed to E^W: at 14^h 30 brilliant flashes of lightning 165
 followed by thunder - were seen, the hill being then enveloped in mist. A slight crackling sound was heard inside the Office at 14^h 50^{min}, & eight minutes afterwards a brilliant flash of lightning was seen, which entered the Observatory producing a bright flash & smart crack at the Telegraph connections in the Office; No damage done, the line-wire being broken at the line. Mr Craig reports having seen ^{simultaneously} a flash, followed by a crack, in the Dust-Room of the Tower; the lightning having apparently entered from the outside by the South brass tube, connected with the aspirator, which was being used at the time. Nothing further was seen or heard but the Telegraph instrument was kept disconnected for several hours afterwards. Very heavy showers of rain were experienced ~~with~~ during the storm. Strong & squally SE^{ly} winds till 19^h when it backed to the ESE becoming more steady & increasing to a moderate gale (Force 7-8) at Midnight.

July 9th Mist or fog, with heavy showers of rain at times all day; but clearing a little between 10^h & 13^h. Temperature falling all day from 48 at 1^h to 41 at midnight. Strong & squally winds, ^{chiefly} from ESE veering to S at midnight & decreasing in force from a gale (8-9) at 1^h to a gentle breeze (1-2) at midnight.

A sharp click was heard on Telegraph instrument at 0^h 57^{min}. Messrs J. G. & F. Buchanan & Professor Hartley visited the Observatory to-day.

A small black rat is said to have been seen at the Stable this afternoon.

July 10th Mist all day except at 18^h when the Summit cleared after a heavy shower of Rain & for a short time, at Thunder was heard to N^W from 16^h 40^{min} to 17^h 10^{min}, whilst the Telegraph needle was clicking for some time before & after this. When the Summit cleared at 18^h a very thick haze & gloomy appearance was observed to the NE^W & detached fog & thunder haze all round in Valley. Temperature low and

1893

pretty steady (range 41 to 44) but rising in the whole. 166
The wind gradually backed from S at 1^h to due E at 1^h 15^m & then gradually veered to SE at midnight. Force 2-3 almost all day.

July 11th. Summit clear from 2^h to 4^h but sky cloudy & fog all round & passing at times. At 5^h mist came on & continued till 11^h when the top cleared again, but sky was overcast or nearly so, & ~~at~~ heavy showers of rain fell at times, all afternoon. Frequent peals of thunder were heard to the SE & S from 12^h till 1^h 17^m, & a flash of lightning was seen to SE at 1^h 20^m, apparently about 4 miles off. St Elmo's fire was heard hissing, from 1^h 30^m till 1^h 50^m, quite distinctly, & the Telegraph needle was clicking all afternoon. Very light E & S winds all day & temperature ranging from 42 to 47.

Mr J. R. Buchanan, along with a friend, Mr Gray, visited the Observatory this afternoon.

July 12th. Sky cloudy & fog all round below till 4^h when the summit became enveloped in fog, which changed into mist, accompanied by drizzling rain, at noon & lasted till 1^h 17^m. At 1^h 19^m the fog fell just below our level & almost all the surrounding country was hidden from view by it; the greater part of the sky being covered with Cirrus & Cirro-mammulus which gradually sank & completely covered the sky all the rest of the night. Very light E & NE breezes till 1^h 30^m; after this it fell calm till 2^h 20^m when a light N wind sprang up. Temperature very steady, range 40 to 44.

July 13th. Summit continued clear ~~until~~ till 3^h after which fog came on & continued the rest of the day but lifting a little between 1^h 5^m & 1^h 19^m. Temperature lower to-day, than ^{it has been} for several weeks, ranging from 41.5, to 35 at midnight. Light N breezes till 8^h calm almost all the rest of the day, with variable air.

July 14th. Mist or fog till 2^h 22^m but summit clear at times between 1^h 3^m & 1^h 17^m. At 2^h 3^m the top was clear but the sky was overcast by a thin layer of Stratus which gradually disappeared leaving the sky cloudless.

at Midnight. At this time ^(23rd) a layer of Stratus fog was seen to N^o & E^o with detached patches elsewhere; these gradually increased in extent until, at Midnight, the Ben was completely surrounded by fog reaching to about 4000 ft. Temperature still low, ranging from 33.1 at 4th to 41.2 at 17th. Very light N^o breezes till 15th calm thereafter except at 17th & Midnight. Air slightly dry from noon till Midnight, except at 21th.

July 15th. The sky became cloudy again at 1th, whilst fog began to pass & continued to envelop the Summit till 9th. although the sky continued overcast or nearly so the rest of the day, the atmosphere was remarkably clear, Barra Head, Coast of Ireland &c being seen. A thin blue haze, in which patches of fog kept forming & disappearing till 20th, was observed in valleys all round; & the clouds kept rising & falling, at times kissing hills all round. Light W^{ly} breezes till 10th calm or N^o thereafter. Temperature slightly higher than yesterday, ranging from 36.0 at 1th to 43.6 at 15th.

July 16th Top clear & sky overcast till 10th; patches of fog were observed in the haze in valleys in the early morning & these increased in extent until, at 10th, the summit was completely surrounded by fog, ~~which~~ The Ben was after this enveloped in fog which changed to a wet mist, accompanied by heavy showers of rain at & after 19th. Air slightly dry till 17th (but saturated at 16th), & temperature ranging from 42.2 at 15th to 37.0 at midnight. Calm till 4th; wind varying between S & W thereafter, but veering towards NW at Midnight.

July 17th Mist all day, with heavy showers of rain & some sleet till 6th, mostly drizzle the rest of the day. Temperature low & very steady (about 35) till noon, but rising to 38.2 at Midnight. Slightly & equally variable N^{ly} winds. Barometer pumping slightly all day.

July 17th (cont^d) Pretty strong Earth Currents were observed on the Telegraph Instrument, causing the Needle to click frequently, between 18th & 20th.

July 18th Summit clear shortly after 3th till after the 5th Observation; with Cumulus fog on hills all round & haze to Northward. The Band of Cirrus observed at 4th had its radiating-points, lying NWSE, very well marked. Fine Sunrise today, the clouds on Horizon being tinged a brilliant crimson. At 6th Mist was again on Summit & continued all day but breaking occasionally between 16th & 17th. Heavy showers of rain fell after 13th till Midnight. Light N^{ly} breezes or Calm till 4th, after which the wind was SW^{ly} till 11th, when it backed to SE: at the same time it increased somewhat in force, at times slightly squally, till 21st when it veered again to S^W & decreased to Force 1. Temperature fell from 38.3 at 3th, to 37.1 at 4th: it then rose to 40.9 at 13th, fell to 37.4 at 17th, & rose again to 41.4 at Midnight.

July 19th Mist with heavy showers all day. Temperature rising till 13th, falling irregularly the rest of the day, range 40.6 to 45.0. Wind somewhat squally at times, & unsteady in direction, varying between S & WNW. Barometer pumping slightly in afternoon.

July 20th Mist with very heavy rain all day. Temperature falling irregularly all day, range 41.3 at 1th to 35.0 at Midnight. Wind squally in early morning & afternoon, varying between SW & NW till 18th, after which it veered to N^W.

The door of the Stevenson Screen was found partly open at the 13th Observation, having been tampered with by Tourists. Barometer pumping slightly all day.

July 21st Mist with showers of rain, sleet and hail all day: with short break between 9^h & 10^h. Temperature low all day, ranging from 33.6 at 8^h to 37.5 at 16^h. Light, Variable N^{ly} winds till noon, W^{ly} till 21^h, and N^{ly} again thereafter.

July 22nd Mist or fog all day, with occasional breaks at 7^h & again between 21^h & 23^h: air saturated except at 15^h. Temperature still low; range 33.7 to 36.8. Light Variable N^{ly} winds all day.

July 23rd Summit clear from 3^h to 18^h & at 20^h: A band of cirrus was seen at 3^h lying NW & SE & having a pretty quick motion from NW: this gradually assumed the form of cirro-cumulus & loose cumulus-^{us} and began to drift over the sky at noon; and at 17^h the sky was overcast with cumulo-stratus: Mist on or passing over summit after 18^h. no fog below but haze in valleys between noon & 17^h. Visibility being 3 at this time. Temperature rose considerably, from 33.8 at 4^h to 49.2 at 16^h. Light N^{ly} winds in early morning, backing to S & S W the rest of the day.

July 24th Mist or fog with heavy showers of rain & hail all day. Temperature falling irregularly all day; range 47.0 to 36.7. Light S W breezes in morning veering to North at night. Although the showers looked like thunder-showers, no thunder was heard, but ^{there was} a click on the telegraph instrument about 17^h.

July 25th Mist or fog with drizzling rain, but clearing for a short time between 10^h & 11^h. Temperature pretty steady: range 36 to 40. Light variable winds chiefly N^{ly} all day.

July 26th Mist till 16^h, after which it gradually cleared, - the fog lifting at times - ~~at~~ & at 22^h & Midnight the sky was almost cloudless. Temperature pretty steady in the Forenoon, but falling from 14^h - 42 to 35. Light Variable N^{ly} breezes all day. A Lunar Corona was seen at 22^h.
A Ptarmigan was seen resting on Summit this morning.

July 27th Summit clear but sky cloudy all day; detached fog continued in Valleys till noon after which it disappeared leaving a slight haze. Temperature fell to 33.8 at 4^h, rose to 46.6 at 17^h & gradually fell the rest of the day to 39. Northerly breezes or Calm till 14^h, light Southerly winds thereafter. The roof was covered with Hoar-frost from 3^h to 5^h, & Ice was observed on dry small pools in the hollows of the rocks. A partial Solar Halo was seen at 20^h, a Lunar Halo at 23^h & Lunar Coronae at 1^h & Midnight.

July 28th Top clear & air slightly dry till 3^h: mist, with slight drizzle at times, - the rest of the day. Temperature steady, range 38 to 44. S W^{ly} breezes till 7^h & veering to N after 17^h.

Samuel Weir left the Observatory to-day & was replaced by George Day, formerly Cook here.

Mr R.C. Mossman visited the Observatory this afternoon.

July 29th Mist, with heavy showers, all day. Temperature steady but falling a little on the whole; range 40-1 at 6^h to 36.6 at midnight. Variable N^{ly} winds.

July 30th Mist or fog, but clearing at times in the Forenoon. Temperature steady, 35 to 38. Variable N^{ly} breezes.

July 31st Mist or fog ^{all day} but summit clear at 15^h. Air saturated; heavy drizzle till 14^h. Temperature steady in forenoon, but falling from 38.4 at 13^h to 34.4 at Midnight. Light variable breezes, chiefly N^{ly} & E^{ly}.

August 1st Mist, fog, or overcast sky all day: continuous drizzle after 14th. When the sun mist was clear detached fog was seen clinging to hillsides all round. Air slightly dry from 7th to 14th. lowest Humidity 94. Temperature falling to 32.9 at 6th, rising to 41.3 at 15th almost steady thereafter. Light N^{ly} breeze or calm till 15th, S^{ly} till 21st, veering to NW afterwards.

August 2nd Summit clear sky overcast from 19th to 21st. mist the rest of the day: heavy drizzling rain till noon, slight drizzle again after 20th. Temperature steady till noon, after which it fell till 20th & rose thereafter; range 36.9 to 40.4. Calm or light N^{ly} breeze till noon gradually backing thereafter to SE at midnight, a Lunar Corona was seen at 1st.

August 3rd Mist all day; drizzle & some heavy showers till 16th. Temperature rose to 44.6 at 10th & fell the rest of the day to 38.6 at midnight. The wind which was SE at 14th 2nd, ~~became~~ veered, & continued W^{ly} from 11th, but varying somewhat during the rest of the day. Barometer pumping slightly all afternoon.

August 4th Summit clear between 11th & noon, ^{with showers at times} from 13th till 17th, mist the rest of the day: Sky was overcast or nearly so & fog & haze ~~kept~~ continued to be seen all round, at times completely surrounding the Ben & rising above our level. Air slightly dry from 14th till 17th, lowest Humidity 89. Temperature pretty steady in forenoon, rising till 7th & falling slowly thereafter. Range 38 to 43. Light S W^{ly} wind in forenoon. N^{ly} or calm from 14th.

Mr Shand came to Observatory to-day & Mr Craig went down.

August 5th Mist till 13th, after which the summit cleared till 17th when fog was again seen on but cleared again at 21st. At this time the sky was overcast by a layer of Stratus, which disappeared leaving sky cloudless after 22nd. Temperature falling till 5th am. rising till 17th falling thereafter, range 38.5 at 1st to 32.7 at midnight. Very light Nth breeze or calm. Hoar-frost was observed on the roof at 23rd & midnight.

A beautiful Lunar Corona was seen through a thin haze at midnight.

August 6th Sky cloudless till 4th (but fog on summit at 2nd); top clear again but sky overcast & thick haze in valleys till 15th, mist thereafter. Temperature fell to the freezing-point at 4th & 5th but rose to 42.7 at midnight, light southerly breeze till 6th, after which the wind backed to the S E & increased to force 6-7 in the evening, but fell again to 2-3 at midnight. Lunar Corona seen at 1st. The Hoar-frost continued on the roof, stones &c. till after sunrise, the summit being quite white, at 4th, as if with a thin layer of snow.

August 7th Mist till 4th after which it sank below our level, leaving sky cloudy or overcast, till 11th & again from 21st till midnight, mist being on the summit during the interval. Temperature showing usual daily range (42 to 49). Light breezes, chiefly S W^{ly} all day.

Some fine Glories were seen this morning

August 8th Mist, fog, or overcast sky all day; air slightly dry in early morning & after 7th P^M. Temperature steady, 44 to 49. Light S^{ly} & S W^{ly} winds all day. Some heavy showers of rain fell between 5th & 9th

August 9th Summit clear (except at 20th) but sky very cloudy all day; a thick haze continued in the valleys below all day reducing the visibility to (1-2) in the afternoon. The temperature was very high all day, the hourly dry-bulb readings

1893

- from 3^H to 22^H - being all above 50°. The 15^H reading 173 of the dry-bulb ^(62.2) is the maximum ~~recorded~~ for the month of August, since the opening of the Observatory; the 14^H reading (60.6) is also above, ~~that~~ whilst the 16^H reading (60.1) is equal to, the maximum of ~~the~~ previous years, which occurred in 1884. Air dry all day, lowest Humidity 60 at 14^H. Light Southerly breezes till 10^H, backing to SE or ESE, ^{thereafter} increasing to force (5-8) at midnight.

Frequent flashes of Sheet Lightning were seen illuminating the Southern & Western horizon at 2⁵^H & midnight, the flashes being almost continuous: no thunder heard.

August 10th Summit clear & air dry till 3^H mist on or passing the rest of the day: Temperature lower than yesterday (45 to 50) & showing daily range a fresh South-easterly gale blowing all day but moderating considerably at midnight.

Lightning continued to be seen on horizon till 2⁵^H a flash of lightning was seen about 18^H 10 min & telegraph needle clicked from ~~blowing~~ ^{after 21^H} till after 21^H.

August 11th. Mist all day, & some rain after 14^H. Temperature very steady, range 47 to 49. Strong squall South-easterly winds till 17^H, veering towards West thereafter & decreasing to a light breeze.

August 12th Mist with drizzle till 15^H, summit clear & sky cloudy with cirrus and cirro-cumulus thereafter; when the top cleared, fog was seen covering the surrounding country & reaching to 4000 ft; this gradually broke up, & disappeared after 21^H leaving haze in the valleys. Temperature falling till 7^H, rising irregularly till 18^H & falling thereafter; range 45 to 53. Air dry from 17^H, lowest Humidity 51 at 18^H. Light Westerly breezes all day.

a solar Halo was seen at 17^H and an aurora at 23^H & midnight: it consisted of one arch with long streamers reaching beyond the Pole star to λ Cepheus.

The shadow of Ben Nevis was seen at 19^H 30 min. The 9th observation was 10 minutes late: no corrections were applied to the readings.

August 13th. Top clear and sky cloudy all day except at 2nd & 17th; haze all day & patches of fog forming & disappearing, during the greater part of the day, in valleys. Temperature high, range 46 to 54; the Dry-Bulb readings from 10th were all above 50, ~~with the exception~~ except at 21st when it was 49.7. Calm or light breezes chiefly Westerly or South-westerly. The Aurora continued very bright till after the 2nd observation. A solar Halo, exhibiting prismatic colours, was seen at 19th and a quadruple Glory round the shadow of the Tower at 5th.

August 14th. Summit clear during the greater part of the day, but mist after 22nd; Air dry all day, except at 2nd & midnight. Temperature high all day, ranging from 50.4 to 60.0. Light Westerly breezes all forenoon, Sth till 18th veering towards S.W. thereupon a beautiful Rainbow, with Secondary bow, was seen at 13th. Mr A. Rankin & Mr Hamblay came to the Observatory to-day, to perform some experiments in connection with the Hygrometry of Ben Nevis. ~~Short lightning was seen to W & S.E. at 1st.~~

August 15th. Mist, fog, or overcast sky all day, with very thick haze in the valleys in the afternoon, air dry from 4th to 21st (except at 9th & 8th), saturated the rest of the day. Temperature still high ~~all day~~ ranging from 50 to 58. Light Westerly & South-westerly breezes. A fragmentary Rainbow or Sun-dog was seen at 17th & 18th 30^{min}. At 20th peals of Thunder were heard to S.W. & at 20th 20^{min} vivid flashes of both Short & Zig-zag lightning were seen to the S.W., some of them, only, being followed by a peal of Thunder. The wind was S.W. at this time & the storm gradually approached & at 21st, a heavy shower of rain began to fall, the drops being very large. The lightning continued to play about the hill-top till ^{after} 23rd but very few peals of Thunder were heard during this time. St Elmo's fire was seen

The storm apparently pre-
ceded from SW to NE or N & then
appeared to return to SW again.

and heard by the people in the Hotel between 21st & 22nd
but ~~not~~ ^{was} ~~the~~ ^{observed} the Observatory. ~~The lightning~~

~~but on the other hand~~ ^{the} telegraph
instrument kept clicking from 21st till about the end
of the storm. Several double flashes were observed; & a
photograph was secured of a distant flash at 20th 40^{min}
end of storm not well marked, but probably about 23rd 30^{min} 25th 45^{min}.

August 16th - Top clear but sky cloudy from 18th to 21st
mist the rest of the day. Temperature fell
irregularly till 22nd (53.3 to 46.6) but rose to 49 at mid-
night. Air dry from 18th to 22nd, lowest Humidity 87.

Light westerly & south-westerly breezes. A triple fog-
bow & quadruple glory were seen at 18th 30 min.
Messrs Hambley & Rankin went down again to-day.

August 17th - Mist all day except at 15th & 16th. Temper-
ature remarkably steady, varying only
from 50.6 to 49.0; air saturated all day. Light SW
breezes till 18th S^{ly} thereafter.

August 18th - Summit clear at times in early morn-
ing, mist the rest of the day; heavy show-
ers fell between 12th & 15th. Temperature pretty steady
in forenoon, falling till 19th, rising slightly thereafter;
range 49.5 to 44.3. Air saturated all day. S^{ly} & SW^{ly} breezes
till 14th, W^{ly} thereafter.

August 19th - Mist or fog till 18th, lifting at times the
rest of the day. Very heavy showers of rain
fell between noon & midnight. Temperature steady
43 to 46. SW^{ly} winds or calm till 17th, S^{ly} the rest of the
day. Mr. A. Rankin returned to the Observatory to-day.

August 20th - Summit clear at times between 1st & 3rd
with thick fog all round; mist or fog
the rest of the day. Very heavy rain fell between
0th & 1st & again at night from 22nd to midnight.
Slightly squally, W^{ly} & SW^{ly} winds till 20th back-
ing thereafter to SE at midnight. Temperature
steady, 40 to 44. Barometer falling quickly after

Triple fog-bow
red sunbeams
red sunbeams

20th, more than half a tenths between 23rd & midnight. A party of tourists was found examining the Stevenson Screen, when the 15th observation was taken.

August 21st Summit clear but sky overcast at 10th & 11th wet mist with ^{very} heavy rain the rest of the day: showers of hail fell between 11th & 14th. Temperature unsteady all day, range 39 to 46: air saturated. SE & S^{ly} winds till 14th, veering to W thereafter, but very variable & squally. Barometer fell quickly till 14th but rose briskly again till midnight. Barometer pumping all day pretty heavily in the afternoon.

August 22nd. Mist all day: & heavy rain till 20th the precipitation thereafter being from a wet mist. Temperature pretty steady till 16th but falling till 23rd, range 41.6 to 36.6. Light variable breezes, chiefly W^{ly} & NW^{ly}, all day.

August 23rd. The mist showed signs of clearing at 2th & at 3th the summit was clear & the sky cloudless but for a bank of cirro-stratus on the SW^{rn} horizon and fog was on the hills all round: the mist came on again at 4th & continued all day but for slight breaks at 18th & 23rd. Heavy showers of rain & hail fell after 20th & there was a slight shower of sleet at 21st. Temperature fell till 4th, rose till 11th & fell again the rest of the day. Range 35 to 40. Air saturated. Light winds varying between S & W but chiefly W^{ly}.

August 24th Mist & fog all day, but breaking occasionally between 4th & 5th. Showers of sleet fell for in early morning, & rain between 14th & 16th and from 19th onwards. Temperature showing diurnal daily ranges (33.8 to 39.6). Light S^{ly} breezes till 2th veering to W & N thereafter.

August 25th Mist or fog all day with drizzling rain in forenoon. Temperature still low & pretty steady; range 35 to 39. Light N^{ly} winds, somewhat squally at times.

Clock stopped this morning at 8^h, owing to the weight falling to the floor as the catch had failed to act on the toothed-wheel.

August 26th Mist or fog all day & drizzle at times. Temperature pretty steady, 36 to 39. N^{ly} winds all day.

Mr Hambley came to the Observatory this evening & stayed overnight.

August 27th Summit clear, but sky overcast or nearly so, from 7^h to 13^h & after 18^h: mist or fog the rest of the day. Sky cloudless from 21^h except for a little cirro-cumulus at midnight which disappeared soon after the observation. Temperature fell till 8^h rose to 15^h & fell the rest of the day; range 34 to 40. Air was slightly dry from 8^h to 13^h & from 21^h to midnight. Light N^{ly} winds or calm. A triple lunar Corona was seen at midnight & 22^h. A lunar fogbow was observed at midnight & there was hoarfrost on the roof at & after 22^h. The 18^h observation was four minutes late.

August 28th Mist, fog, or overcast sky from 4^h to 17^h. Sky cloudless at 1^h & only slightly cloudy, ~~during~~ during the rest of the day, when the top was clear. Temperature rose from 2^h to 14^h & remained pretty steady thereafter; range 36 to 43. Air was dry at 1^h & 2^h & from 14^h to 20^h; the humidity decreased from 99 at 17^h to 43 at 18^h but became saturated again at 21^h. Light N^{ly} breezes all day. The hoar frost was entirely off the roof at 4^h. Lunar Coronae were seen at 1^h & 2^h & lunar fogbows at 2^h & 3^h. Mr Hambley went down again today.

August 29th Summit clear, the greater part of the day, but mist on or passing after 13^h; sky cloudless at 10^h, 19^h & 20^h. Fog continued in valleys & on the hills all day, almost completely hiding the surrounding hills & at times enveloping Ben Nevis. Temperature fell from 45.0 at 2^h to 41.6 at 5^h, rose to 48.5 at 13^h & fell again to 40.1 (at 22^h) the minimum hourly reading. Air dry till 15^h & at 18^h & 21^h; the Humidity was very low in forenoon, the lowest being 31 at 9^h & 10^h. the sky at these hours being practically cloudless, & cumulus fog below our level, light N^{ly} breezes all day.

A triple fogbow was seen at 17^h, the outermost bow having red outside & the two inner, having the red inside. ~~Solar~~ ^{was seen} Corona at 21^h.

August 30th At 1^h & 2^h the summit was clear, but sky cloudy, & fog all round above 4000 feet; at 3^h mist came on & enveloped the hill all day except for short intervals at 19^h & 20^h; drizzling rain after 19^h. Temperature fell from 45.1 at 2^h to 39.6 at 3^h but rose to 43.9 at 13^h; it then fell to 42.0 at 16^h & rose again to 43.9 at 19^h & remained steady thereafter. The Humidity fell from 95 at 1^h to 50 at 2^h but was saturated at 3^h & after. Moderate N^{ly} winds, force 2-3, all day. The 12^h observation was 5 minutes late. ~~Solar Corona seen at 1^h~~

August 31st Mist with heavy showers in afternoon & drizzle in forenoon & evening. Temperature very steady, ranging from 46.4 at 15^h to 43.6 at 23^h. Light N^{ly} breezes or Calm all day.

1893

179

September 1st. Mist with drizzling rain all day. Temperature very steady, ranging from 43.6 at 13^H to 45.4 at 22^H . Light variable N^{ly} winds, increasing somewhat in force at night.

September 2nd Mist or fog till 13^H : after which the fog lifted, but the clouds were just clear of Ben Nevis & dipping the hills all round. The clouds sank again, forming fog at 17^H & 18^H , after which the sky remained cloudless till midnight: there was rather thick haze in valleys, which passed over the summit as a thin fog at 22^H . Temperature ranging from 42.7 at 9^H & 20^H to 46.4 at 15^H . Air slightly dry from 13^H , lowest Humidity 66 at 19^H . Light N^{ly} winds till 13^H . Calm till 20^H . S^{ly} breeze thereafter.

A lunar Corona was seen at 22^H . The shadow of Ben Nevis & pink Afterglow were seen this evening.

September 3rd Sky cloudless or nearly so till 11^H the Stratus fog in the morning reached to 4000 ft, & kept passing over the summit till 16^H after which it gradually disappeared leaving a thick haze in the valleys below: fog however began to reform in the valleys at midnight. Temperature fell to 41.3 at 8^H , rose to 54.2 at 17^H & fell to 48.4 at midnight. Air dry all day except from 2^H to 4^H : lowest Humidity 32 at 20^H . Light S^{ly} & SW^{ly} winds till 16^H morning to W thereafter.

Lunar Coronae were seen at 1^H , 2^H & 3^H , partial at 17^H & a lunar Halo at midnight. Glories were seen frequently in forenoon & afternoon.

September 4th Summit clear & air very dry till 23^H : lowest Humidity 33 at 10^H . Sky very cloudy in forenoon with various forms of Cirrus which

almost wholly disappeared after 15th except a few small patches. A thin layer of Stratus-fog lay in the valleys to NE, E, & S in early morning, but disappeared after sunrise; small patches however continued to hang about the hills near the horizon all day, especially to S & W. There was a thin haze below in forenoon which increased in afternoon when the visibility was barely 3. During the afternoon a thick haze appeared over the Gulf of Some & crept up both limbs, forming into Stratus-fog in the evening: at 23th this fog began to pass over Ben Nevis & assumed a slightly misty character at midnight, causing saturation. The temperature rose from 47.3 at 2th to 57.3 at 14th but fell to 45.6 at midnight, W & breezes till 11th, S^{ly} till 21th morning to S W thereafter.

Lunar Coronae were seen at 2th, 3th & 23th. Two or three Butterflies were seen on the top to-day.

September 5th, Fog till 17th mist with some heavy showers thereafter; a slight break occurred at 14th showing sky cloudy & fog all round: air was slightly dry from 8th to 16th, lowest Humidity 97 at 14th Temperature fell from 46.4 at 1th to 42.5 at 8th rose to 44.5 at 14th & fell irregularly thereafter to 40.8 at midnight. S W & breezes till 20th morning to N thereafter.

September 6th Mist or fog all day: drizzle in morning & afternoon. Temperature very steady ranging from 41.7 at 14th to 39.4 at 21th. N^{ly} breezes till 21th W^{ly} & NW^{ly} till 15th, S W^{ly} till 19th S^{ly} thereafter. The mist lifted for a short time about 22th 30th but sky appeared to be completely overcast.

September 7th Summit clear but sky cloudy & fog all round, from 1th to 4th: mist or fog the rest of the day: air dry at 3th & 4th. Temperature rose from 40.5 at 5th to 42.4 at noon & fell slowly to 38.4 at 23th. Light variable W & winds, heavy showers of rain fell between 7th & 10th & from 15th to 21th. Barometer pumping slightly from 17th.

September 8th Summit clear at times between 8th & noon, mist or fog the rest of the day. Heavy showers of rain, hail, sleet & snow fell in the morning & afternoon. Temperature fell from 38.2 at 2nd to 33.7 at 7th, rose again to 38.6 at noon then fell to 30.0 at midnight. Air slightly dry at 11th-noon. Light variable N^{ly} winds or calm. Several peals of Thunder were heard to the southward about 2nd 57th & the telegraph needle gave several sharp clicks; nothing was heard after the 3rd observation. Barometer ~~pressing~~ ^{falling} from 13th to 18th. Summit Wier returned to the Observatory & George Day left to-day.

September 9th Air remained saturated all day although the top was often clear after 9th; the clouds however were usually just clear of the summit or fog was passing causing saturation. The sky was cloudless at 22nd but thin fog was passing. At times the visibility was 3-4, when the Paps of Gura, Skye &c were seen. A heavy shower of snow fell between 2nd & 3rd & slight showers at times in morning & afternoon. Temperature fell from 30.0 at 1st to 28.6 at 4th, rose to 31.1 at 15th & fell the rest of the day to 26.8 at midnight. Light N^{ly} winds all day. The Maximum Black Bulb could not be set to-night as it was frozen to the stand. A new bend was put in the Kitchen chimney to-day.

September 10th Fog on or passing till noon; clear the rest of the day. Sky often cloudless in morning when the top was clear of fog; the fog rose in afternoon forming Cumulus clouds which disappeared after 18th leaving sky cloudless again till midnight when Cirrus began to form. Temperature low & showing daily range, 26 to 35. Air dry from 13th to 19th & at midnight; the Dry Bulb read lower than the Wet at six times during the day. Air very clear to Westward in afternoon Barra Head &c being distinctly seen. N^{ly} breezes in forenoon, S^{ly} till 18th veering to SW thereafter.

There was a thick covering of Hoar-frost on the roof & wood-work from 21st.

The Glass-ball of the Sunshine Recorder was not put out till 8th, so that some Sunshine was probably not recorded.

September 11th - Sky cloudless or nearly so till 11th, fog on or passing till 17th, top clear & sky cloudy thereafter. At midnight fog had formed all round & was passing at times. Air very clear in morning, visibility 4. Temperature ~~slightly~~ higher to-day, ranging from 30° at 5th to 40° at 14th. Air dry all day, lowest humidity 48 at 4th. The wind veered from S W at 1th to N at 6th; it again became S^{ly} at noon but veered again to W at midnight. The Hoar-frost continued on the ground till after sunrise a faint Aurora was seen at 3th.

September 12th - Top clear & air dry at 1th, fog till 14th, mist with heavy showers thereafter. Temperature rose steadily from 33.6 at 3th to 41.4 at 23th. S W^{ly} winds all day, squally at times. Barometer was pumpingly slightly afloat 11th.

Mr Marr came to the Observatory to-day in connection with Mr Herbertson's work.

September 13th - Mist or fog all day; very heavy rain till 13th. Temperature rose steadily from 41.3 at 1th to 48.0 at 11th but fell again to 38.6 at 21th. Squally S W^{ly} winds till 6th, WNW^{ly} till noon & light N^{ly} & NE^{ly} breezes thereafter.

Barometer pumping all day.

Mr A. Rankin went down to the Low Level Observatory this morning.

September 14th. Mist with heavy drizzle all day. Temperature rose from 38.9 at 2^h to 47.0 at 11^h. & remained steady between 45 & 46 during the rest of the day. Variable N^{ly} winds in forenoon, & varying between SW & W ~~thence~~ after 12^h; squally at night. Barometer pumping slightly all day.

September 15th. Mist with very heavy drizzle till 8^h, lighter showers thence after. Temperature falling from 46.7 at 5^h to 37.8 at midnight. Squally variable winds, chiefly W^{ly} & NW^{ly}.

September 16th. Mist or fog all day; drizzle at times. Temperature fell from 37.8 at 1^h to 35.7 at 7^h & rose to 37.5 at 14^h fell thence to 33.9 at midnight. Variable winds, chiefly N^{ly} all day.

September 17th. Mist, with heavy drizzle at times, all day. Temperature rose from 33.6 at 3^h to 41.1 at 14^h & fell slowly to 38.7 at 22^h. Variable N^{ly} winds all day.

September 18th. Today Mr. R. T. Omond came up to the Observatory and Messrs Ch. Stewart and T. Man went down -

September 19. At 4^h the outside part of the observation was about 5 minutes late owing to lamp going out -

September 20. Fog breaking occasionally: at 18^h. Triple Solar Corona seen -

September 21. Today Mr. A. Shand left the Observatory.

1893

184

Sept 23 From 4^h to 7^h there was so much drift that no rain gauge was put out - The ground is deeply covered with snow -

at 17^h 10^m - Dy 192677 : Wet 192672 and Min 138545 were put out in small box on ladder stand No 1.

The following duplicate readings were taken -

Horn	Large Screen		Small Screen	
	D3	Wet	D3	Wet
18	25.1	25.2	25.4	25.4
19	25.3	25.3	25.7	25.7
20	26.0	26.1	26.2	26.2
21	26.1	26.1	26.6	26.6
22	26.1	26.2	26.7	26.7
23	26.3	26.3	26.5	26.5
Mat	26.2	26.2	26.3	26.3
24 th				
1	26.0	26.1	26.2	26.2
2	26.1	26.1	26.4	26.4
3	26.1	26.1	26.2	26.2

Up to and including midnight the Large Screen readings were entered on Daily Sheet : after that the Small.

Sept 25 Thermometer Box shifted at 14^h 8^m Dy 535541 : Wet 535542 and Min 138533 put out. Height not altered - Top clear after 7^h - Clear views all round Rum Shye small seen - No fog below except some on hills to E^W after 18^h.

Sept 26th Fog on or passing all day but sky apparently clear above - Fog very thick in afternoon - During a short clear spell at 22^h a Lunar Halo was seen -

1893

October 3 Thermometer Box shifted at 11^h 10^m Dry
192677 : Wet 192672 and min 138545 put out.
Height not altered, still on stand No 1.

Top clear in afternoon No fog below but haze to S^W
and after 18^h patches of fog on hills to S and E
and occasionally on Ben Nevis also.

October 4 Fog lay among hills to E^W till 10^h
Sky clear but fog on sand on S near the top all day -
Faint Aurora seen at Midnight -

October 5 Today the Hotel on Summit was
closed for the season -

October 7. Thin fog with frequent clearances most
of the day. Up to 4^h heavy fog lay in valleys to N^W
and after that was in valleys all round or passing over
the summit till 14^h after 15^h there was no
low fog except some patches to NE^W at 17^h

October 8 Sky clear in early morning, overcast by 5^h,
fog passing at 6^h, and snow falling at 7^h. The
snow which fell was in large flakes and soft:
it did not drift but lay 6 or 8 inches deep -
Top & Sky clear again after 20^h but fog rising and
passing over Ben at times. -

Thermometer Box shifted at 20^h 12^m Dry

535541 : Wet 535542 and Min 138533 put out.
Height not altered, box still on stand No 1.

October 11 Snow fell most of the day and though there was little drift at night the hill top was deeply covered, hiding all except the largest stones and allowing one to walk freely all over the top -

October 15 at 23^h 10^m Dry 192677 and Wet 192672
put out, Box and Min not altered -

The snow which fell a few days ago is now very much melted off there being only a few patches more than six inches deep -

October 16 at 1^h 10^m Dry 535541 and Wet 535542
put out : Box & Min not altered -

October 17 Summit clear after 18^h and sky almost cloudless the rest of the evening, and air pretty dry after 22^h: Cumulus above horizon all round and a little det fog in valleys to S.
A portion of an Aurora seen at 21^h with faint streamers.
Today Mr James Miller and George Jackson Lineman arrived at Observatory and Mr R. T. Dineen went down.

October 18 Sky cloudy and air very dry till 3^h mist and drizzling rain thereafter.

October 20 Temperature rising steadily all day from 32.5 at 5^h to 48.0 at 21^h.

1893

187

October 21

Mist or fog all day with heavy rain in forenoon and slight showers of snow in afternoon. Temperature fell from 43.9 at 14^{hrs} to 37.0 at 15th and continued falling slowly thereafter.

October 22nd

Variable gusty winds all day with slight showers of snow.

Barometer pumping slightly all day. Four tourists visited the Observatory today.

October 23rd

Summit clear for a few hours in forenoon but sky overcast with Cum-S. Thermometer box shifted at 10th 10th by 192677 wet 192671 and Min 138545 were put out in small box on ladder stand N^o 2.

Barometer fell .084 between 22 & 23^{hrs} and at the same time the wind was blowing in strong gusts from the SW, at Mt Bar had risen again ~~again~~ .045 but continued falling thereafter.

October 24th

Very squally W and SW winds with heavy rain. Temperature high all day.

October 25th

Strong gusty SW winds till 4 am moderating in force during the forenoon. Very heavy rain fell till 7^{hrs} and heavy showers of hail and snow the rest of the day. The usual hissing noise which accompanies St Elmo's Fire was heard at 22 & 23^{hrs} but being bright moonlight the discharge could not be seen.

1893

188

October 26th

Summit clear after 22^{hrs} except for a little fog blowing over hill top; but sky overcast with Cum-^{us} and having a very ugly appearance generally; Snow falling almost all day and a good deal of drift flying about in the afternoon: Snow lying on Summit to the depth of 4 inches although there are some wreaths round Observatory varying in depth from one to two feet

October 27th

Temperature rising steadily from 24.4 at 1^{hr} to 35.0 at 19^{hrs} and pretty steady since; Slight showers of snow in the forenoon and drizzling rain after 14^{hrs}

October 28th

Heavy rain falling all forenoon and showers of snow in the afternoon

October 30th

Fog till 4^{hrs} sky cloudy till 6^{hrs} and then fog passing; almost cloudless till 9^{hrs} and fog off and on till 14^{hrs} continuous fog the rest of the day with slight showers of snow in the evening: Temperature low and pretty steady all day from 20.0 at 1^{hr} to 18.0 at midn. Air slightly dry from 9^{hrs} till 12^{hrs}

Thermometer box shifted at 7.10^{am} by 535541 wet 535542 and min 138533 Height not altered

1893

October 31st

189

Summit clear occasionally at 9th and 13th
 but sky cloudy: Barometer falling quickly
 all afternoon and wind backed from N.
 to SW after 13th and ~~backed~~ increasing in force
 to a medium Gale after 20th: A considerable
 amount of drift blowing about all evening
 On fog-bow ~~at 13th~~ at 13th
 November 1st

Wind moderating in force after
 2nd and veering to Nth and blowing a gentle
 breeze the rest of the day: Snow fell
 heavily all day: The Summit is now
 deeply covered only a few of the largest
 stones are showing above surface.
Depth of snow at 16th: 14 inches

November 2nd

Thin fog all day. Showers of snow
 till 16th fair after that

November 3rd

Temperature fell 4° between 20th & 21st
 A Silver frost after 14th till 23rd with temperature
 falling from 31° 3 to 23° 4.

Slight Showers of Snow in forenoon

November 4th

Fog or overcast sky till 15th almost
 Cloudless till 18th except for a little Cirrus
 no fog on hills below. Air very clear to W.
 and SW. V. about 4: Fog on again after 18th
 Thermometer Box shifted at 11th 10th by 192677
 wet 192672 and min 138545. Put out
Height not altered

1893

190

November 5th

Fog or overcast sky all day with slight showers of snow in the morning. Temperature low all day and pretty steady. Variable squally winds all day chiefly Northerly during a very strong squall today top part of kitchen chimney was broken (about six feet) There is still remaining six feet from above snow-branching which seems to be in good condition.

November 6th

Fog clearing of summit at times during the day, but sky cloudy. Slight showers of snow between 14 and 16^h. Thermometer not shifted at 20^h. 10^m. Dry 535541 Wet 535542 and min 138533 feet out. Height not altered.

November 8th

Thin fog till 18^h and sun gleaming at times about mid-day. Sky cloudless till 22^h but fog over hills to N and E. Fog came on again at 23^h. Slight showers of snow fell between 9^h and 15^h. Aurora seen at 20^h.

Thermometer not changed at 19^h. 15^m. Dry 192677 Wet 192672 and min 138545 feet out. Height not altered.

November 9th

Sky perfectly cloudless all day and fog on hills to E and S till 4^h thereafter spreading all round and rising to height of Ben-nevis.

1893

191

- and blowing over Summit at times in the afternoon, but in the evening it sunk again to about 3000 feet. Air very clear to W^d at 3^h Phladda. Lobermory and Barrow Head lights being seen. Air dry all day except at 16^h at times humidity was very low being 30 per cent at 3^h: Aurora seen at 1^h till 4^h and at 19^h 20^h and 21^h. Shooting stars at 3^h. A mouse was seen in lobby of Visitors Room

November 10th

Sky cloudless till 6^h somewhat cloudy with Cirrus till 15^h but cloudless again since. Fog on hills all round to 3000 feet but after 16^h began to break up into detached cum-fog and in the evening lay over hills to E^d & S^d only. Temperature pretty high all day and steady Max being 39° 2 at 15^h. Aurora seen at 19^h and on till midnight

September 11th

Barometer and temperature high and steady all day: Sky cloudless all day. Fog all round to 4000 ft: Aurora seen at 1^h and 20^h

September 12th

Sky cloudless all day and fog around to 4000 ft: in the afternoon fog had sunk a little and some hills-tops were seen above fog. Temperature pretty high and steady all day. Aurora seen till 3^h and at 22^h and after

1893

192

November 13th

Temperature fell 7.9 between 1st + 2nd but rose again 4.7 at 3rd and remained pretty steady the rest of the day. Air dry all day humidity ranging from 36 to 76. Sky cloudless all day and haze at horizon all round in the afternoon thicker to W^d and N^d. but fog lying in valleys all day. Aurora seen at 1st till 4th and at 20th and midnight

November 14th

Sky cloudless till 4th; cloudy and fog on Summit at times till 13th continuous fog thereafter. but fog in valleys in early morning; str. cum at horizon to S and W at 4th. Air very dry up till 8th lowest humidity 27 p.c at 4th. Calm till 6th and light N^d wind during the rest of the day. Aurora seen at 1st + 2nd.

November 15th

Summit clear and sky cloudless till 2nd and some fog in valleys. Fog with occasional breaks during the rest of the day. Light N^d breeze till 9th veering to SE. and S. thereafter. Temperature very steady all day. Max 26.8 at 1st and Min 24.7 at 18th

1893

November 16th

193

Strong SE^{ly} winds till 19th backing to ESE and increasing in strength to a gale thereafter. Barometer falling all day, rapidly after 16th. Thick fog all day and dark coloured crystals growing on all exposed objects. A slight shower of sleet fell at night.

November 17th

The ESE^{ly} gale moderated in force after 4th and fell calm at 8th thereafter wind veered round to Nth and in the evening very strong gusts were experienced and a considerable quantity of drift blowing about. Barometer falling in the afternoon heavily after 20th. Showers of rain and snow fell during the day.

November 18th

Very squally variable Nth and NE^{ly} winds all day. Some snow fell during the day, but gauges were not in use owing to high winds and snow drifting about considerably. Temperature very low all day. Min 10.2 at 21st. Barometer falling heavily all day. A Lunar Corona seen at 21st.

November 19th

Fog breaking occasionally in the forenoon to Nth. Temperature low all day and very gusty N and NE^{ly} winds. Barometer falling all day.

November 20th

Fog cleared off Summit after 10th but leaving hills all round enveloped in fog and

1893

194

- sky somewhat cloudy with Cirrus till 17th
but cloudless thereafter. Air very dry at
times in the afternoon, humidity being 32
at 20th. Glories were seen at 14th and 15th
Thermometer Box changed at 11th 15th by
535541 wet 535542 and min 138533 put out
height not altered

November 21st

Sky cloudless till 7 am and a little
cloudy with Cirrus till 11 am since then mist
and fog, with drizzling rain and snow after
23rd. Fog on hills and in valleys to N and W
in early morning and by 11th had spread
all round and at times blowing over Ben Nevis
and at 12th it had settled down on Summit

November 22nd

Variable gusty N^W winds all day
with showers of snow. Temperature falling
all day from 25.0 at 1st to 12.2 at Midnight

November 23rd

Fog or overcast sky, clouds just tipping
hill-tops all round. Squally N^W winds all
day. Slight showers of snow fell in early
morning and evening. Barometer falling after 13th
Thermometer Box changed at 0th 20th and
raised one step up on ladder, by 192677 wet
192672 and min 138545 put out. Height above
snow 54 inches

1893

195

November 24th

Light Northerly gusty winds all day, with
showers of snow in forenoon and sleet and
drizzling rain in afternoon. Barometer pumping at 12⁴⁵

November 25th

Mist with rain and drizzle till 21st
Fog with slight showers of snow thereafter.
Temperature at and above freezing ~~all~~ all day
till 21st but falling quickly since then

November 26th

Summit clear from 7th till 11th and again
at 16 and 19th but sky almost overcast.
After 20th fog was very thin and did not appear
to be much higher than Ben Nevis in the moon
and stars could be seen distinctly through it
Lunar Fog-bows and coronae were seen from
21st till Mtdt. Thermometer not changed
at 9th 10th by 535541 wet 535542 and Min 138533
put out. Height above snow not altered.

November 27th

Mist all day with drizzle in forenoon and
heavy rain in the afternoon. From 15th till
21st over a quarter inch of rain per hour was
recorded. Temperature rising all day from
23° at 1st to 38° at Mtdt. A Lunar Corona seen at 1st

November 28th Temperature high and very steady all
day about 37° & 38°. Gusty W & NW winds with mist and
heavy rain all day. The total rainfall being 4.292
inches. Barometer pumping after 11th

1893

196

November 29th

Mist with very heavy rain till 18th and snow and sleet thereafter. The greatest hourly rainfall being 0.413 at 16th. Variable squally W and NW winds all day. Barometer pumping till 18th. The evening the usual report could not be sent to papers owing to telegraphic communication breaking down.

No signals being got from either Post-Office or Low Level Observatory all day.

November 30th

Fog all day except at 17 & 18th but sky somewhat cloudy with Cir-S and fog passing summit. Light variable breezes chiefly N & E and calm all day. Slight showers of snow fell at times during the day. Thermometer Bar shifted at 18th 15th by 192677 wet 192677 and min 138545 put out. Height above snow 42 inches.

Today Mr Jackson telegraph lineman came up and tested instrument and found all right at this end. In the evening communication was opened with Post-Office and Low Level Observatory. The fault being found in cable between Red Burn crossing and Achintee. The report was sent to Daily papers at the usual time.

1893

197

December 1st

Temperature very low all day; lowest hourly reading being $7^{\circ}2$ at 8^{th} . Summit clear frequently between 7^{th} and 12^{th} but sky cloudy and fog on hills all round. Light variable N and E winds and calm all day. Slight showers of snow fell in early morning.

December 2nd

Summit clear after 4^{th} and sky cloudless till 8^{th} and fog on hills all round except to W. Fog on again at 9^{th} : air dry very dry at 7^{th} humidity being 39 p.c. Temperature ^{low} in morning being $12^{\circ}1$ at 1^{st} but rising steadily all day $32^{\circ}0$ at melt. Snow fell after 14^{th} and sleet at 20^{th} . Thermometer Bot changed at $6^{\text{th}}15^{\text{m}}$ by 535541 wet 535542 and min 138545 put out tonight not altered.

December 3rd

Mist or fog all day with heavy showers of rain sleet and hail.

December 4th

Slight showers of snow and drizzling rain during the day. Today Mr. R. Rambin came up and Robert McSengall went down to Low Level Observatory.

1893

December 5th

198

Mist with heavy rain and drizzle with some showers of snow and sleet all day.

Glazed frost forming - temperature being 32° or less except at 15th and 16th when it was 33° .

December 6th

Heavy rain till 14th and snow or sleet during the rest of the day. Total fall for the day being 2.018 inches.

Barometer falling all day and temperature falling all evening.

December 7th

Fog and snow all day. Temperature steady, 19 to 23. Barometer falling decidedly at night and wind backing to S^t and rising in force.

The storm box and thermometer were put in position on tower at mid^l.

December 8th

Barometer falling quickly till 10th and till this hour a strong SE gale blew. Thereafter the barometer rose and the wind veered to SW and W. and moderated to a gusty breeze.

Snow fell most of the day but owing to the strong wind and heavy snow-drift the gauge was not out.

From 4th to 7th inclusive the temperature was taken from the tower box instead of the usual screen outside.

Flashes of lightning were seen at 18th and St Elmo's fire was noted at midnight.

December 9th

Fog and snow all day.

At 15th 30^m Thermometer box was changed. The fresh box was put one step higher than last on ladder stand.

Cy 192677 Wt 192672 and Wm: 132533 were put out.

1893 December 10th

199

Barometer falling till 18th Wind backed to SE by 6th and blew a whole gale till 18th. Weather it beered and moderated.

At 17th and 18th the temperature readings were taken from the tower thermometer.

Heavy drift all day: but apparently there was no snow falling till evening. The gauge was put. till 7th and again at 20th but was taken in at 22th and put. out at 23th. At 10th 12th and 13th the summit was clear and the air dry.

December 11th

Fog and snow all day.

Flashes of lightning seen at 1th and Thunder heard at 10th.

Heavy drift all morning. St Elmo's Fire seen at 23th

December 12th

Fog all day. Strong SE^{ly} winds in morning with heavy drift but apparently no snow falling.

December 13th

Fog all day. Strong SE^{ly} winds in forenoon and gusty N^{ly} winds all afternoon.

December 14th

Fog with showers of snow all day. Wind N or NE in morning: but backed to SW at night and at midn^t. it was very squally, and caused heavy snow drift.

Flashes of lightning seen at 7th.
Barometer pumping heavily at night.

December 15th

The wind continued SW^{ly} and squally till 3rd. Thereafter.

1893

it veered to W. and NW. but backed again after 10^h and blew in heavy gusts from SW. during the rest of the day. 200

Barometer rising from 3^h except for a curious fall from Noon to 1^h.

Thermometer box changed at 15^h 30^m. Dry 538545 and Wet 538544 with min 138545 were put out. ~~the~~ height of box same as last.

Temperature rose in afternoon to 36. and with heavy rain and high wind the snow was thawing quickly all evening.

The rain gauge was rendered useless in early morning by high wind and drift. Values entered at 1^h to 4^h incl. are interpolations.

December 16th

Very squally SW^{ly} winds, with mist and rain all day. Temperature high (37.6) in early morning, but falling slowly all day being 30.8 at midnight.

December 17th

Mist or fog till 13^h: summit clear till 22^h when wind and fog began to pass. Air dry while top was clear, but detached fog on lower hills all round, and some Cirro-stratus on sky.

Thermometer box changed at 14^h 10^m: dry bulb 192677, Wet 192672 and min 138533 put out. Height above snow not altered.

Wind squally all day - force at night being 7 to 8 & 9.

December 18th

Fog all day, with showers of snow from 7^h till mid^t. Squally S and SE winds in morning veering to NW by 13^h but backing again at night.

December 19th

Barometer falling and wind backing to SE and rising to a full gale 10 to 11 the 10th am. It blew hard the 13th thereafter decreasing gradually and wind veering to SW at at mid. to N.

Fog ^{or almost} all day. Snow falling heavily at night.

December 20th

Light N^W winds with fog, and snow falling all day.

Barometer very low but rising slowly.

December 21st

Snow falling heavily all day.

December 22nd

Wind backed to S by 5th today but force did not increase above 4 to 5.

Temperature rose quickly after 6th today and fell after 10th.

Heavy rain and hail fell between 9th and 11th the amount for the hour ending 10th being 0.437 inch.

Several flashes of lightning accompanied by clicks in the telegraph instrument seen between 19th and 20th.

December 23rd

Fog and showers of snow all day. Wind backing to SW at night.

December 24th

Fog or mist all day. Temperature rose in early morning and ranged from 32 to 36 from 9th the 17th and fell again at night:

Showers of snow in early morning and at night. and heavy rain during the middle of the day.

1893

December 25th

202

Fog and snow all day.

Barometer rising decidedly at night.December 26thFog except at 23^h when top was clear - sky covered with cir-cumulus.

Snow showers in early morning: drizzling rain forming glazed frost in afternoon.

Barometer high and steady.

Thermometer box changed at 15^h 30^m. Dry 535541
wet 535542 and min 138533 put out. The box was
raised a step on ladder stand, being now in the
highest on the fixed ladder.December 27thMist till 18^h overcast sky thereafter:Drizzling rain or sleet falling almost all day
Temperature rose in early morning: and ranged from
33 to 34 from 5^h till mid^t.December 28thBarometer high: and also temperature: the latter
being also very steady, 33 to 34.Sky cloudy till 6^h and Summit clear except for
passing mist. Mist and drizzle during the rest
of the day.December 29thMist or fog and drizzling rain, with SW & W^l
winds. Glazed Frost forming. ~~at night.~~

1893

December 30th

203

Mist and heavy drizzle all day. Wind veering from W. in morning to NW at night. Glazed frost forming. Barometer and temperature falling slowly.

December 31st.

Mist and drizzle till 18th. Fog till 22. Clear and cloudless at 23rd and midst. Temperature falling decidedly at night.

No visitors during December

Instruments etc 1893

Barometer No 1385 has been in use all through the year. No 1285 has not been used.

Thermometers: Dry Bulbs 535541 & 192677; with Wet bulbs 335542, and 192671, have been in use: A new set was added to stock in Decr. - Nos 861089 - 861090 - but they have not been used yet.

From May 9th to Sept 24th when the large thermometer screen was in use, maximum thermometer 117293 and minimum 116918 were in use: During the rest of the year minimum thermometers 138533, and 138545 were in use in the small box on ladder stand.

The bent thermometer for the Tower Storm box has been used occasionally.

Black bulb No 186 was in use from June 8th when it was brought up from Low Level Observatory.

The usual patterns of 5" ~~f~~ rangefinders have been in use - the smaller size in Summer and the larger in winter.

The Campbell-Stokes Sunshine recorder has been in use. The anemometer has been out of order all through the year; and Chappell's direction-instrument has not been in use.

The driving clock of the latter continues to be the Standard Time Clock in Observatory.

The Rainband observations have been made by means of the small Direct Vision Spectroscope.

Some photographs were taken in the early part of the year and in Summer; but since September the Camera has been at L.L.O.

Richards' Barograph was in use till Dec. when the clockwork became foul and refused to work. The drum with clock is away getting cleaned and repaired.

The Stephanome has been in use as usual.

The Depth of snow is measured as formerly at Post A.

Observations of the number of Dust particles in the air have been made with the large instrument in tower: The small one is at the Base Station.

There have been several breaks in the rainfall owing to snow-drift and high winds: In other respects the observations have been uninterrupted during the year, although the outside part of the hourly routine has been from 5 to 7 minutes late on a few occasions.

During the latter half of the year Communication

1893

Instruments etc

by telegraph has been faulty, owing to the 205
 Cable getting fused and burnt by lightning.
 Besides the permanent plant of the Observatory.
 there are various instruments - Balance, weights, thermometers
 tubes, aspiration psychrometer etc. at Observatory
 belonging to Mr. A. J. Nicholson. During August
 and September they were used ~~in~~ at this
 Observatory in connection with Mr. Nicholson's
 work on Hygrometry - A similar set of Observations
 being made at sea level at the same time.

The Permanent Staff consists of R. T. Ormrod.
 A. Ransom. J. Miller and Sam. Weir.
 with R. McCongell since July. Throughout the
 year the following have acted as observers at
 different times. Messrs A. J. Nicholson, C. Stewart.
 A. Shand. & J. I. Craig. R. McCongell was
 telegraph Clerk in Summer and Autumn.
 George Ray and Wm Stewart acted as
 of S. Weir. at different times.

1894

1894

206

January 1st

Sky clear: but fog and wind
hanging about till - of all day.

Temperature falling.

one visitor today.

January 2nd

Fog with a few clear intervals. Between
13th and 14th 0.38th sunshine was recorded. - the first
record since 1st Dec^r.

Temperature falling at night.

At 0^h 10^m thermometer box was changed. The
new set of thermos was put out viz: - Q.8610894
H.861090. With minimum 138545. - Night.
not altered

January 3rd

Fog or overcast all day. Temperature 11°
to 12°. Wind ESE strong breeze.

January 4th

Temperature 12° to 15°: fog or overcast sky
with E to ESE strong breeze all day.

January 5th

Snow falling all afternoon: but no gauge
out owing to drift and strong winds.

1894 January 6th

207

Sudden fall in temperature this morning — at 4^h the reading was $13^{\circ}3$, and at 8^h $0^{\circ}7$. The latter is the lowest hourly reading ever recorded here. The self-registering minimum recorded $0^{\circ}0$ as the lowest.

Fog all day with snow in morning. Strong E to SE breeze all day ^(a snow-bumping nap seen at snow-porch today.)

January 7th

Summit clear till 6^h. Fog thereafter, and snow falling all afternoon.

Wind veered to S and SW in afternoon. Thermometer box shifted at 3^h 20^m. Dry 535541 Wet 535542 and min. 138533 put out. Height not altered.

January 8th

SE to ESE winds all day rising to a gale force 10 in evening.

Some snow was apparently falling at and after 22^h but gauge could not be worked.

January 9th

The wind continued SE^{ly} all day but the gale moderated after 1^h but increased again after 23^h.

Yesterday and today, brown fog crystals forming.

Rain gauge was not out till 4^h today owing to high wind and drift.

Temperature rising decidedly today.

1894 January 10th

208

Wind blew hard - force 11 at times - till 8th when it veered from SE to S and SW. and moderated. It backed again after 18th and increased in force to a gale. (force about 8)

Temperature rising today - being a thaw at night. Some showers of hail and snow fell between the hours this forenoon, but no gauge out - owing to wind and heavy drift.

In the evening the surface of snow was quite brown all over hill top with the brown fog crystals formed during the gale.

January 11th

Mist or fog till 19th: summit clear at times but sky overcast thereafter: Rain and sleet fell till 13th and some snow in afternoon.

The wind veered to SW from SE and backed again twice today: strong and squally throughout. force 9 at midth.

January 12th

Squally SE^{ly} gale till 8th: thereafter the wind veered to SW and moderated: but backed again and rose to a gale at night.

During the gale in the morning the ranging angle could not be worked.

January 13th

Very strong SE^{ly} gale this morning: Force over 11 from 1st till 4th. Thereafter it moderated somewhat but continued very squally all day.

Summit clear most of forenoon but sky overcast. Ranging angle could not be worked today till after 19th: At 2nd 3rd 10th 17th & 18th. the temperature readings

1894 were made from the Storm-box in Tower. 209
After the 4th observation Mr. Rankin was
blown from the Tower steps and sprained his ankle.

January 14th

Mist or fog till 21st. Summit clear and sky
almost cloudless thereafter.

Thermometer box shifted ~~after~~ at 23rd 30^m Dry
861089 & 861090 and Min 138545 were put
out. Height above snow not altered.

Today Mr. R. McCongall arrived at observatory.
Both today and yesterday S. Wier helped Mr.
Miller to make the observations continuous.

January 15th

Clear at 1st. Fog during the rest of the day
Strong SE^{ly} winds in afternoon, when owing to
heavy drifting there was no range out-
Richards Barograph was brought up yesterday
cleaned and repaired: and started today.

January 16th

Snow or drizzling rain and mist all
day, with gusty SW to W^{ly} winds.

January 17th

Fog or mist with snow or sleet all day.
(The big black. and tackle for buckets was pegged
up in Tower today)

January 18th

Fog and snow all day with light N^{ly} winds.
Lunar Corona seen at 21st

January 19th

Fog all day. Heavy showers of snow sleet. rain
and hail in afternoon. Squally S to SW winds

1894

all afternoon. At 22^h the rain gauge was found lying on its side having been blown over by wind. 210

January 20th

Fog or mist with heavy showers of snow all day. Wind veered to N in forenoon.

January 21st

Fog and snow all day.

Earth currents in telegraph cable at 23^h 35^m.

January 22nd

Fog and snow till 20^h. Top clear; sky cloudy thereafter.
Earth currents in cable at 4^h 40^m.
{ Thermometer-bbox shifted at 21^h 30^m. Dry 535541 Wet 535542 and min 138533 put out

January 23rd

Summit clear except for passing fog at times till 13^h fog and snow thereafter.

Temperature low all morning; rising in evening. 2.47 Hrs sunshine recorded today.

January 24th

Fog or mist all day. with snow till 8^h and heavy rain thereafter. The temperature was at or a little above 32° from 10^h till 20^h.

January 25th

Fog and Snow all day. Temperature falling slowly. St Elmo's Fire was heard at 16^h and earth currents moved telegraph needle at 21^h.

January 26th

Fog and Snow all day. Temperature rising to 32° at night.

At 16^h today the top joint of ladder was fitted up and a fresh box put out. with Dry 861089 Wet 861090 and min 138545. The box is now on very top of ladder N.2.

1894 January 27th

211

Mist with heavy rain and sleet till 8th. fog and snow thereafter. Temperature was above 32° till 6th. It was falling all the rest of the day.

Jan 22nd it was found that the rain gauge had been blown away and could not be found.

January 28th

Rain gauge found this morning.

Fog all day except for an hour or two in evening. Snow fell continuously till 16th.

The depth of snow at breath-port was 107 inches at 15th today.

January 29th

Sky cloudless at 1st and 2nd. Fog during the rest of the day. Snow falling most of the day but no gauge out in evening owing to high squally winds and heavy drift. Earth currents noted on telegraph instrument at 18th and midnight. Lightning seen at 22nd and 23rd.

January 30th

No gauge out today till 23rd owing to squally winds and snow-drift. but some snow was falling most of the day.

Summit clear for a few hours about midday and at 21st and 22nd.

January 31st

Fog most of the day - clearing at night. Rain gauge blown away at 20th and could not be found on hill-top.

One visitor during January.

1894

February 1st

212

Temperature rising today. Fog and snow till 16^h: drizzling rain and mist thereafter.

February 2nd

Temperature 30 to 35 with mist and very heavy rain till 16^h: Temperature falling with fog and showers of hail thereafter. The amount of rain measured for the hour ending noon today was 0.944 inch.

February 3rd

Fog and snow all day.

Thunder and lightning noted at 1^h 52^m: and earth-currents in telegraph instrument at 3^h 33^m and 5^h 50^m.

Mr. J. Miller went down to L.L.O today

February 4th

Mist with rain and hail with temperature 30 to 34 till 15^h snow and fog with falling temperature thereafter.

dry hail (very small) falling in morning; and soft snow-hail at night.

Lightning seen at 19^h 24^m and 19^h 25^m: and St Elmo's Fire at 22^h

February 5th

Fog from 3^h till 17^h: top clear thereafter till 21^h but fog below all round. and falling air on Skz. Much fog at and after 22^h.

Thermometer box changed at 20^h 15^m: Dry 861089 Wet 861090 and Min: 13.8545 put out. at same height above snow as last. (23^h obs: begun at 23^h 2^m)

1894

February 6th

213

Wind very squally all day - especially in morning.
 There was too much surface-drift till 9^h for gauge to be
 worked, but thereafter it was out; and by mid⁺ it
 recorded 5.668 inches (In daily sheet there is one inch
 added for the morning hours) Temperature high all day.

February 7th

Heavy rain and hail till 3^h. Heavy snow during
 the rest of the day.

Temperature falling all day.

February 8th

Fog and snow with temperature rising slowly
 all day.

Thunder preceded by strong click in telegraph
 instrument at 4^h 30^m. and again at 5^h 0^m.
 Lightning was seen at 6^h 4^m.

A click in telegraph instrument at 3^h 0^m.

February 9th

Mist or fog with heavy snow all day.
 St Elmo's fire seen at 1^h and lightning at 5^m past mid⁺

February 10th

Wind very squally; and amounts of snow measured
 in gauge very doubtful today till after 17^h.

Fog all day.

The 22^h obs. was begun at 22^h 2^m.

February 11th

Fog or mist and very heavy snow and hail
 today. All ~~the~~ afternoon the wind was very squally
 and caused a good deal of surface drift
 which may have affected the hourly amounts
 of snow - which though very doubtful are entered
 on the daily sheet. At mid⁺ the drift was so bad
 that the gauge was brought in.

1894

Thermometer box changed at 16^h Dry 535541 214
Wet 535542 and min 138533 put out. = height not altered

February 12th

Fog clearing at times in middle of day showing a cloudy sky overhead.

The Bar: had been falling the mid^{last night} when its lowest reading 23.869 inches was recorded: The 6^h today it rose rapidly: and some heavy squalls of NE^h wind with heavy snow-drift were experienced: Owing to this the rain-gauge was not out till 6^h except from 1^h till 2^h when there was not so much wind or drift.

The snow-porch was cleared and repaired today: it had been blocked since about the 20th of January: The windows were also cleared today - during the last fortnight the lamp has been burning almost continuously day and night.

February 13th

Fog clear for few hours in morning and at end after 21^h. Thin fog during the rest of the day with some snow in forenoon.

Aurora seen at 3^h

[Wm Stewart: came up and stayed at obs. one night.]

February 14th

Very fine all day. Cloudless till 9^h. Some cirrus till 20^h. but thereafter sky got heavily clouded; and fog and haze was all round below.

The haze and fog bank was seen at 14^h at Mull: It gradually thereafter came up from the SW. Air very dry: lowest dewpoint and humidity - 27.6 and 9. at 13^h

Thermometer box changed at 1^h 36^m Dry 861089 Wet 861090 and min 138545 were put out

1894 The depth of snow at wreath-post was found to be 215
126 inches at 15th today: The depth nearest the cliff is
about 2 ft. more.

February 15th

Fog almost all day.

Fog crystals slightly brown in afternoon.

February 16th

Mist and drizzle in forenoon. Thick fog
and snow in afternoon. The drizzle in morning
left the surface of the snow quite brown: and
in afternoon ~~the~~ brown fog crystals were forming.

February 17th

Fog almost all day with snow all forenoon.
Moderate SE breeze till 4th thereafter it fell in
force and slowly veered right round to SE
again by 22th.

February 18th

Fog till 15th. Clear thereafter - sky cloudy
or overcast and thick haze and fog all
round below.

Thermometer - box changed at 20th 35th by 535541
Wet 535542 and Mini 138533 put out - height not
altered.

Snow at cliff very deep and overhanging - Could
not reach bucket stage today.

February 19th

Cir-s on sky at 1th and 2th moving from SW and
lying NW-SE. It showed a corona round moon but no halo.
Thick fog during the rest of the day: depositing brown fog-crystals
Snow at night

1894

February 20th

216

Sky cloudy and fog all round below from 10th till 13th. Fog on Summit during the rest of the day: except at 7th 8th & 9th when it ^{was} mist with temperatures about 25°.

Showers of snow throughout the day - at night tiny needle shaped crystals fell.

Thermometer box changed at 11th 12^m. Dry 861089 Wet 861090 and min: 138545 were put out at same height above snow as last set.

February 21st

Fog or mist with showers of snow all day. Strong currents in telegraph cable all evening - mainly keeping needle over to left side (Current down hill).

February 22nd

Top clear except for thin fog at times and sky cloudless most of forenoon. Thick haze below. Air dry at 5th and 6th.

Fog with strong squally SW^{ly} wind in afternoon.

Snow falling heavily after 20th but drift was too heavy for gauge to be out.

Thermometer box changed at 1th 15^m. Dry 535541 Wet 535542 and min 138533 put out. Fresh box put one step (the last) up on ladder stand.

February 23rd

Fog or mist all day. Slight showers of snow in forenoon: heavy snow and hail in afternoon: but from 14th till 20th no gauge was out owing to heavy drift and squally winds.

February 24th

Fog and snow all day.
Wind very variable today.

1894

February 25th

217

From 5th to 10th range was not changed owing to heavy drift and squally winds.

Quick rise and fall of temperature today.

Barometer jumping heavily all afternoon.

All afternoon the wind was very variable - very difficult to say what was correct direction. Lightning seen at 21st 22nd and 23rd. During these 3 hours the telegraph instrument was continually clicking. Besides the clicks there were all afternoon strong currents in cable keeping needle hard over to stop for some time.

At 23rd a bright aurora with very active streamers was seen to W ~~and~~ NW & N. while at same time lightning flashes were frequent to SW. and S where the appearance was very ugly. Bright auroral streamers were seen as far south as SW x W.

The last click was heard in telegraph at 23rd 59^m. Between 21st ~~and~~ 50^m and 22nd Thunder was suspected after some of the clicks: but this is doubtful as the wind was roaring in precipice and in chimneys: and this might have been the noise heard.

February 26th

Top pieces were today put on Post at Buckets place and on wreath post: these spots were flush with surface - the latter is 137 inches high. Range found buried in a drift at 20th - contents discarded.

February 27th

Clicks in telegraph instruments between 10th & 11th

February 28th

Range found buried up to rim at 21st - taken in and now put out for rest of night. as ^{it was} drifting too much

click in telegraph instrument at 23rd 58^m

None visited summit during February.

1894

March 1st

Stormy all day. No gauge out owing to drift. 218
Tower box readings entered in daily sheet - up till 5th incl
Strong Earth Currents on wire all evening.

March 3rd

At 18th St Elmo's Fire seen - snow hail falling at the time

March 4th

At 16th 20^m Box shifted - Dry 861089 - Wet 861090 and
mm 138545 put out

March 5th

At 22th St Elmo's Fire seen

March 6th

Strong cluck in wire at 11th 3^m - St Elmo's Fire
seen at 2th
mult. observation taken 5^m late

March 7th

Box changed at 1th 20^m Dry 535541 - Wet 535542
and mm 128522 put out.

At 3th noted - 3th Dry 279 - Wet 21.9 (Cord) and Calum
with no fog to be seen about.

at 3th 30^m Dry and Wet 21.5 (Cord) Wind SSW force 1
and thin fog just on.

Very dark fog crystals forming in afternoon

March 9th

St Elmo's Fire seen & heard at 19th snow hail falling

March 10th

Very heavy drift at night - Did not change
raining after 22th

March 11th

Used tower thermometer from 1th till 4th inclusive. Very
heavy squalls during this time. Great difficulty in working
Tower door. Raining after 7th.
(With Tower door open, the Richards and wind blowing in the
Richards' Barge in top room of tower rose 0.250 during of squall
see curve)

March 12th

St Elmo's Fire seen at 1st

Clicks (all dots) heard on wire at 2nd 19^m - 25^m - 28^m 3rd 30^m - 53^m
after each a rumbling as of thunder was heard, but not
distinct enough to say whether thunder or noise caused by
wind.

March 13th

Put at top piece on "post A". Height in all now 190 inches
and there is a screw nail at 150 inches

March 14th

Hotel entirely out of sight - even Post at South China
quite covered. Also Warrth post; but top joint may have got
blown down.

March 15th

Snow hunting seen on roof at 7th
Man (McEwan) up today for report. None up since 14th Feb

March 16th

Bon changed at 12th. Dry 861089 Wet 861090 mm 138545
put out. Height not altered (Top step of life ladder)
Lunar fog bow at 1st

1894 March 17

Fog coming up from W. in early morning and as 220
it covered summit On other side of 1st gorge it flowed
down into the covey close to cliff.

March 18th

At 21st a fresh gauge was put out as the one whose
time to be out it was had been leaking (broad base gauge)

March 19th

Mouse seen (and caught, as it was quite tame but
let off again) at 1st in lobby.
Fog horns and triple coronae seen at night.

March 21st

From 3^h to 3^h 30^m observed lunar glories formed on
passing fog. Observer on Top of tower was often out of
the fog. When the fog was between him and moon
a very bright triple corona was seen, and when it
passed tower a single-ringed glory bounded by
a faint red ring was observed. Repeated measurements
of the outer edge of red gave $2^{\circ} 45'$ as radius, and
this was in all the trials made exactly the same
as the outer edge of inner red of corona.
A bright foghorn was seen at same time
radius $35^{\circ} 0'$ (extreme outside). The glory was seen
against the snow not 20 yards from base of tower.
The fog kept passing in great waves, and flowing
sheer down the cliff all morning.

March 22nd.

Therm. Bar shifted after 1st Dry 535541 Wet 535542 and
Min 138533 put out - height not altered.

Fog cleared after 11th leaving sky cloudless but thick
haze all around below.

Haze was yellowish white under sun and moon but
dark blue almost black on ^{opposite} side of observer.
Immediately over the haze and directly under the moon the
sky was a dark copper colour all night.

Bright and active Aurora seen at midnight -

1894

March 23rd

221

The boundary between the white haze ~~was~~ on the side of ~~the~~ moon of obscurity and dark blue haze on opposite side was well defined today. At 4^h this boundary was measured by stephanome and found to be $59^{\circ} 30'$ from a point in the horizon perpendicularly under moon. The moon at the time covered Pollux Venus large and bright these mornings.

At 21^h 45^m a double moon was seen. The real moon was just clear of the horizon, and the spurious moon a little higher - an exact copy of real moon but much fainter. It partly overlapped the real moon.

Fig 1 in diagram. There was no appearance of cirrus at time.

~~At 21^h~~ It was probably a mirage.

At 22^h 5^m a pillar of light $1^{\circ} 50'$ long descended perpendicularly from the moon to where the "mirage" had been seen. The moon at time was behind streaky Cirrus. At same time a mock moon was seen $23^{\circ} 3'$ to S^o of moon - same height above horizon. Fig 2 in diagram.

The Cirrus that was first seen about moon at 22^h gradually spread Westwards and northwards.

March 24th

Faint glimmers in N^o sky all last night and in early morning today - probably auroral.

The Cirrus that was seen to SE at 22^h to mid last night covered the whole eastern half of sky at 2^h and 3^h then gradually vanished. It lay in long bands lying N. and S. while some Cir-c stripes in it lay E and W.

The upper limit of haze rose at 1^h.

The zodiacal light was seen last night and again tonight.

Snow hunting mews at 15^m and a mouse in snowpore at mid.

March 25th

Hazy Huges today than last three days.

Very thin fog hanging (a mere mistiness) overhead at times in morning. Pew on Bon at 2^h.

Zodiacal light and faint Aurora seen at night.

26 March

Thick haze but sky very clear overhead all day.
Zodiacal light seen at 21^h

March 27

Haze as before - Snow hunting seen at 11^h

Today Mr R.P. Ormond came up from Fort Lued Observatory
and Mr A. Rankin went down -

March 28^e

Haze as before but rather higher. Max Black
Bull No 186 put out on bracket at post A 57 inches above snow

March 30^e

Faint aurora seen at 3^h and Bright aurora
at 21^h and all night after that accompanied with
strong earth currents in telegraph cable - The currents
were in both directions ~~about~~ continued for several
minutes in each direction at a time - at 21^h
the Aurora was all over the sky in the form
of bands stretching from WSW to ENE with a
very dark belt to S^W the centre of which was
about 30° above horizon - There were also
thinner dark bands to N^W

Today Mr McIntyre postmaster Fort William
and Mr Wallace Post Office Surveyor visited the
Observatory - Three other gentlemen also came
up, climbing the cliff up the buttress at point
beyond second gorge and having to cut steps almost
the whole way in the ice -

March 31^e

at 1^h and 2^h aurora consisting of a
"Crown" at Zenith and streamers radiating from
it in all directions, but chiefly to WSW and ENE
Snow hunting seen at 7^h on summit

1894

223

Today Two strangers climbed Ben Nevis and the cliff the same way as yesterday, one of them being one of the previous party -

Nine Strangers in all visited the Observatory in March.

April 1st When the summit was clear today it was noticed that the haze, which had been very thick all round since March 22nd, had disappeared -

April 4 Dry 192677 and Wet 192672 found out at 23^h 10^m Box and Win not altered -

April 5 Both yesterday and today there has been fog and haze below but rising as high as or higher than Summit occasionally -

April 8th For the three days 6th 7th and 8th fog covered the hills below in broken cumulus like masses and occasionally blew over Ben Nevis also. The crystals formed out of the fog were quite white, no brown or other colour in them - Today the temperature was very unsteady, altering as much as 7° in an hour as the fog went on and off -

April 10th Showers of icy hail in afternoon = Snow door blocked after 14^h though almost none lay on the surface of snow -

1894

224

April 11 at 15^h 5^m thermometer box put one stage lower on stand, instruments and box not changed -

Shower of rain & sleet about 19^h 30^m and earth currents in telegraph cable all afternoon
Lunar halo seen at 23^h

April 12^o The 1^h observation was taken at 1^h 4^m
Lunar Halo seen at 1^h

April 15^o Thermometer Box shifted at 4^h 20^m

Dry 535541 Wet 535542 and Min 138545
put out. Height alone snow not altered -
Double Lunar Corona seen at midnight -

April 16^o Lunar Halo seen at 2^h air very
clear in forenoon before fog came on -

April 18^o Thermometer Box shifted at 15^h 23^m

Dry 192677 : Wet 192672 and Min 138533 put out.
Height not altered -

air very clear when fog was free of fog in afternoon
Sky Run Jura all clearly seen. No fog in valleys
or on hills, but some haze and cum fog over Atlantic
to W^r at 20^h Sky half covered with cirrus
after 21^h in long strips lying N and S. "Noah's Ark"
form.

1894

225

April 19 Lunar Halo seen at 2^h and Solar Halo at 14^h
 No fog below and air very clear all morning, but
 fog on hills to NW at 19^h and passing summit.
 This cleared away again after 20^h

April 20th Fog bank seen to SW about mill at 1^h
 and shortly after 2^h fog passing which continued
 till 7^h clear of fog and low cloud after that, but
 cirrus on sky and haze all round.

April 25th Strong squally south east winds both yesterday
 and today, especially in early morning today. Some
 slight showers of snow fell but no gauge could be
 put out owing to the wind & drift.

April 26th Thermometer Box shifted at 20^h 10^m.

D₅ 535541 : wet 535542 and min 138545 put
 out. Height above snow not altered.

Today Mr R. E. Mossman visited the observatory.
 The following extra readings were taken while he was
 ascending and descending the hill.

	Bar	D ₅	Wet	Wind	cloud	Notes
11.30 ^m	24976	31.3	31.3	SSE 3	mist	Sl falling
12.30	24978	32.2	^{Sat} 32.1	SE 2-4	fog ^o	9° clear at times
13.30	24983	31.9	31.9	SSE 3	mist	Sn & Sl falling.
19.30	25.009	30.8	30.8	S 3	fog	Top clear at times

April 28th Aurora seen at 2^h a single faint arch
no streamers. Solar Halo seen at 16^h

Today Mr J. Miller returned to the Observatory and
Mr Robt. MacDungall went down to the Low Level obs.

April 29th Mist most of the day, but at 10^h 19^h and
20^h it only just reached the level of Ben Nevis filling
the valleys and passing over the summit.

11 Strangers climbed Ben Nevis in April, including
three ladies and Mr R C Morrison.

May 1st The fog on summit sank just below
the level of hill top in the evening - At 18^h and
19^h ^{fog was passing} but at 20^h it was all below hiding all the
other hills and the temperature rose nearly 5°. ⁵⁰
at Midnight the fog was passing over summit
occasionally again & temperature fell 6°. ⁵⁰
Solar Halo seen at 18^h and 19^h on cir-str.

May 5 Thermometer Box shifted at 9^h 10^h

Dry 192677 = Wet 192672 and Min 138533 put out.
Height above snow not altered.

Summit clear but fog on hills below and sky half
covered with cirrus & cir-cum at 9^h 10^h and 11^h

Solar Halo seen at 10^h

May 6 Though the temp was low 27° to 29° the fog
crystals formed in afternoon were hard and icy.

May 9th

From 8^h onwards the summit was frequently clear but there was always fog hanging about the hills and passing at times. Solar Halo seen at 8^h

Thermometer Box shifted at 10^h 10^m. D_y 535541
Wet 535542 and Min 138545 put out. Height
above snow not altered.

Some glories were seen at 19^h.

May 10th

Snow fell in heavy showers and drifted a good deal in forenoon but no gauge could be used till 13^h. The doors and windows were all blocked up by the drift.

May 12th

Thermometer Box shifted at 10^h 10^m.
D_y 192677 : Wet 192672 and Min 138533 put
out. Height not altered.

May 13th

Thermometer Box shifted at 4^h 12^m.

D_y 535541 : Wet 535542 and Min 138545 put out.
Height above snow not altered.

From 3^h to 8^h Summit clear but detached masses of fog on hills, at 9^h & 10^h fog all round, from 11^h to 12^h sky almost overcast but no fog below and air very clear especially to N^W. The Outer Helms being clearly seen all afternoon, after 19^h fog on summit. Earth shadow seen at 4^h.

May 14 considerable drift in early morning blocking up the doors and windows, but they were dug out again in afternoon.

May 16th Thermometer Box shifted at 12^h-10^m. Dry 192677 : Wet 192672 and Min 138533 put out. Height above sea not altered.

at 16^h top cleared but fog lay over hills at 4000 feet till 19^h after which it broke into detached masses, and by 22^h has risen up as cumulus.

May 17th at 4^h the Black Bull Max was put out on Bracket stand on post A. Fog lay among the hills to N^W till 8^h after which there was little or no fog among the hills, and the air to W^W was very clear, the outer Hebrides being clearly seen. The N^W horizon was red all night - at 16^h the Wet Bull was dry & the value for that hour was interpolated.

May 18th Dry 2 Wet Bulls shifted at 3^h-8^m. Dry 535541 and Wet 535542 put out. Box & min not shifted. The shadow of Ben Nevis was clearly seen after sunrise at 4^h. Fog lay in the valleys to N^W till 8^h after which it broke up. Some cir and cum near horizon all day, but at 19^h fog came on summit suddenly.

May 19 Summit was clear occasionally but fog lay over the hills all round & sky was covered with low clouds whenever this occurred.

May ~~20~~ 21st

Fog hanging about the hills round most of the day but clearing away at night. Both yesterday & today there have been slight showers of dry snow in afternoon.

Today Mr Robt. Macdougall came up from Low Level observatory and Mr J. Miller went down.

May 22nd

Earth shadow and Ben shadow well seen at sunrise. At 5^h some glories seen in passing fog on summit. Fog lay on Rannoch Moor at 3^h and 4^h and light fog was blowing over the summit from 5^h to 10^h after that haze, rising higher than summit surrounded the hill.

The clouds during the day time seemed to be mostly local in character.

May 23rd

Thick haze all day and local cumulus in middle of day like yesterday. Today Mr Ch. Stewart arrived at the observatory & Mr Robt. Macdougall went down to the Low Level.

May 24th

Cirrus and cir str. gradually overspread sky from the North. Solar Halo seen at all hours from 6^h to 17^h. Considerable Haze all day. Wet Bull. dry at 15^h and value on Daily sheet interpolated.

May 25th Solar Halo seen at 11^h
when top was clear in afternoon there was no fog below

May 26th at 5^h the door of thermometer screen was
found open: it had blown open since 4^h
No range and out till 14^h as wind and drift were
too great to make its readings reliable.

May 27th Thermometer Box shifted at 7^h 10^m

Dry 192677: Wet 192672 and Min 138545 put
out. Height alone snow not altered.
Summit clear and sky only partly clouded with cum.
from 7^h to 17^h but passing ~~some~~ showers all
round, a few of which fell on Ben Nevis as
hard dry snow. No fog in valleys.

May 28th Doors and windows blocked with drift.

May 29th Thermometer Box shifted at 0^h 15^m

Dry 535541: Wet 535542 and Min 138533 put
out. Height alone snow not altered.
Fog in a passing ~~till 11^h~~ almost all day. St Elmo's
Fire heard & felt at 14^h just before 14^h hail came
on but it changed to small hard snow, not like
ordinary St Elmo snow.

May 30th Top cleared at 1^h and sky was almost
cloudless till 9^h but fog lay on hills to N and
E all morning - cloudy & foggy all after 9^h.

St Elmo's Fire heard and felt at 15^h It appeared to be stronger than yesterday, but on neither occasion was there any strong current in telegraph cable. Heavy shower of ordinary snow after 15^h

May 31st When Top was clear today there was mostly fog all round hanging about the hills - at 16^h there was a fall of conical snow like St Elmo's snow but no sounds were heard, so the discharges if present must have been faint. about 21^h there was a very slight fall of snow as the fog sank leaving sky clear -

40 Strangers climbed Ben Nevis in May.

June 1st

Haze all day and stratus-fog over Loch Lough and valleys to N in early morning, which afterwards rose and formed Cumulus - Passing showers all round in afternoon, particularly dark over Rannoch Moor about 18^h 21^h - The Cumulus clouds sank into haze at night, with a slight shower about 19^h Rainbow seen at 20^h

June 2nd

Two Ravens seen at 6^h Very hazy and some dry fog passing summit in morning -

1894

June 4th Haze all round in early morning and at 3^h detached fog among hills - at 4^h fog on Ben Nevis which continued almost all day and was very thick occasionally - Today one of the observing horses came up for the first time this year -

June 6th Solar Halo seen from 5^h to 9^h
No low lying fog but clouds frequently were touching the hills round & at 17^h there were passing showers seen to N and E -

June 7th Masses of fog lay among the hills and occasionally covered Ben Nevis also till 9^h after which it rose forming Cumulus clouds - and leaving the air clear below - as the clouds sank again towards evening a slight shower of rain fell about 18^h but no measurable quantity was got in gauge - at 23^h a bank of fog at about 4000 feet height filled the valley to N^W
a mouse was seen at the Observatory door way at 11^h

June 8th Detached fog hanging about the hills and some passing showers seen during the day - Today the Hotel was opened for the season -

1894

233

June 9th

Detached masses of fog among the hills & sometimes rising above Ben Nevis all day till 19^h after which mist settled on Summit and heavy rain came on.

June 10th Sleetly snow falling at 23^h and midnt
The roof etc was quite white with this fall.

June 13th Summit cleared about 1^h by mist sinking down and dispersing - It lay in detached masses among the hills most of the day and from 14^h to 17^h cum. fog rose up the SW side of Ben Nevis in great masses - after 18^h fog lay over the Atlantic and the Western hills about as far as the head of Loch Sheil - it seemed to be at about 3000 feet height - cumus gathered to west & NW after 21^h air very clear all day no haze -

June 14th

Great masses of Stratus & Stratus fog lay among the hills at about 3000 feet till 8^h after which they rose slightly and the clouds that had gradually formed overhead sank down and mingled with them - Mist on Ben Nevis almost continuously from 9^h onwards but no fall of temperature when it came on.

June 15th

Thermometer Box lowered one stage on ladder stand No 2 at 0^h 5^m same box & instruments left out.

June 16th

When Summit was clear in afternoon there was no low fog in valleys but a good deal of cum-fog about & over the hills.

at 17^h 10^m the top joint was taken off ladder stand No 2. the thermometer box being now on the top stage of lower part of stand.

June 18th

strong display of St Elmo's Fire at 2^h. It was too light to see anything but the hissing noise was very loud especially from the objects on the tower. Ordinary snow was falling heavily at the time - this fresh fall quite covered the old surface obliterating all footmarks etc.

June 20th

after some slight breaks during the day the fog began to sink below the hill level at 20^h and from then to 23^h the hill was surrounded by Cumulus like masses of fog. At Midnight there was no fog near, but some was on or close above the distant hills especially to N^W.

June 21st Detached fog gathered among the hills in early morning first seen far to N^E gradually increasing till at 5^h it lay as Stratus fog over Loch Laggan and Moor of Rannoch - It took a more Cumulus form as the day went on, and from 8^h onwards the summit was mostly in fog - Hoar frost on roof in morning - Solar corona seen at 7^h at 14^h the summit was clear and there was no fog below -

June 25th Summit clear till 3^h No fog below at 1^h & 2^h but detached patches among hills at 3^h Sunrise colours very brilliant at 2^h and 3^h The gauge brought in at 19^h had .040 in. in it, but it was found to be leaking and it was assumed that no rain had fallen that - from similarly to the times before and after -

June 26th Thermometer Box lowered ~~one~~ one stage on ladder stand No 2. at 0^h 5^m Same box and instruments left out - at 20^h Black Bull lowered one stage on post A - all evening though the top was clear the air was saturated and felt damp; but what surrounded and was passing over the summit was haze rather than fog -

Today Mr Robt. Macdingall came up to the observatory from Fort William

June 27th. Although the summit was clear frequently, ~~during~~ fog continued to cling to the surrounding hills and pass over the Ben all day; whilst the air felt very close and sultry. Mr Comond went down to the Low Level Observatory today.

June 28th Sky cloudless after 11^h: fog continued to be observed on the surrounding hills, & passed over the summit all forenoon; after which it disappeared but haze remained behind in the valleys, especially to the SW where the visibility was barely 2. At 9^h the haze to W^d appeared to lift & the Outer Hebrides were distinctly seen. A Halo was seen shortly before 10^h. Thermometer Box was lowered one stage on the ladder after the midnight reading, the same box & thermometers being left out. The Max. Black Bulb was also lowered one stage on Post A at 23^h.

June 29th. At 1^h Stratus fog was observed forming in the haze in valleys to N^d; it continued to increase & at 5^h a continuous mass was ~~noticed~~ to the NE stretching down Glen More & Loch Linnhe apparently as far as Corran; as well as over the Moor of Ramnack & other valleys to the SE, & Glen Spean. A thin fog or haze was passing over the top at 3^h. The fog disappeared after 9^h but haze continued below, causing the visibility never to exceed ~~three~~ (3) all day. Sky cloudless except for a little cumulus between 11^h & 20^h. Dew on roof at 23^h & midnight.

June 30th Thick haze all day & sky cloudless or nearly so. The haze extended to between 20 & 30 degrees above the horizon. Only very thin detached patches of ^{low lying} stratus fog were seen to the N^d & E^d in the early morning and these disappeared soon after sunrise. The sun rose behind haze at 3^h 20^m air very dry all day.

July 1st.

The sky continued cloudless all day but the air was a great deal clearer than yesterday. Patches of Cumulus began to form in the haze on the NW^m & NE^m horizon at 15^h but disappeared a few hours later. In the afternoon streaks of Stratus haze stretched high into the sky. Black Bull lowered one stage on post A at 22^h.

July 2nd.

Cloud began to be formed in the thick haze at 2^h, and increased in amount, falling lower at the same time; and finally enveloped the summit at 4^h. The top soon cleared again and the sky became ~~slightly~~ cloudy being completely overcast at noon. Mist covered the summit after 13^h and heavy rain fell on till Midnight. The wind gradually veered ~~from SE~~ ^{at 13^h} to N at 20^h. The temperature fell quickly from 59 at 10^h to 43 at midnight.

July 3rd.

The mist cleared from off the summit after 20^h by sinking below us and disappearing, leaving haze and some banks of fog to Wrd. The sky was at first almost cloudless but gradually became clouded with bands of cirrus which appeared to run WNW & ESE; fog again covered the top at midnight.

After 16^h 'Dry Bulb 192677' & 'Wet Bulb 192672', as well as 'Max. 117293' & 'Min. 116918', were put in Summer Box (No 2) and comparison readings were taken till midnight. The readings of this set of thermometers differed so much from each other that after midnight, Dry 535541 & Wet Bulb 535542 were taken from the small Winter Box and put into the Summer 'Stevenson Screen' & the others were put in their place. The readings of 535541 & 535542 in the small box (56 inches above the nearest snow) were entered in the Daily Sheet as well as the 21st reading of Minimum. 138533 which was higher than that recorded by Min. 116918. Max 117293

1894

July 3rd (contd)

238

and Min. 116918 were re-set after 21st, and Min 138533

was brought in. The following are the double readings

	^{Small Box} Dry Wet		^{Summer Box} Dry Wet		Difference	
	Dry	Wet	Dry	Wet	Dry	Wet
17 th	38.6	38.6	39.6	39.0	1.0	0.4
18 th	38.0	38.0	38.3	38.0	0.3	0.0
19 th	37.6	37.6	38.3	37.8	0.7	0.2
20 th	37.4	37.4	37.8	37.5	0.4	0.3
21 st	35.7	34.9	36.6	35.1	0.9	0.2
22 nd	37.4	36.2	37.7	36.6	0.3	0.4
23 rd	36.9	36.8	37.3	37.1	0.4	0.3
mid st	37.8	37.8	38.3	38.1	0.5	0.3
					4.5	2.1

	Summer Box		Winter Box		Mean	
	Dry	Wet	Dry	Wet	Dry	Wet
4 th 1 st	38.5	38.5	39.0	38.8	0.5	0.3
2 nd	38.8	38.8	39.3	39.1	0.5	0.3
3 rd	39.0	39.0	39.6	39.4	0.6	0.4
4 th	38.9	38.9	39.5	39.3	0.6	0.4
5 th	39.3	39.3	39.8	39.6	0.5	0.3
6 th	39.4	39.4	39.9	39.7	0.5	0.3
					0.5+	0.3-

The Black Bulb was dismounted from Post A & put on its Summer Stand near the Stevenson Screen.

July 4th. The snow has disappeared from about the gauge but there is still a large & pretty continuous patch of snow to the East & West of the Observatory. The hourly readings of Dry 535541 & Wet 535542 in the Summer-Box were entered in the Daily Sheets, & the readings in the Small Box discontinued after 6th.

July 5th. The Mist disappeared after 17th, leaving the sky at most covered with various forms of Cirrus which gradually faded away leaving the sky cloudless at 22nd. Haze soon formed in the Valleys all round, with patches of Cumulus-fog to E & S. The sun sank behind a thick sheet of Cirro-Stratus which covered the Wth & Nth-longer. At 23rd loose, low-flying Scud began to pass overhead, being apparently formed from a thick heavy bank of Cumulus to Sth, having its base resting on the hill-tops.

July 6th. Thick haze with Cumulus fog lay all round in the early morning & was on or passing over the summit the greater part of the day after 3^h. Heavy rain began to fall after 15^h and lightning followed by Thunder was first observed about 19^h 15^m. The storm continued till about 19^h 30 mins, ~~the~~ earth-currents were first noticed in the Telegraph Cable at 16^h & the Instrument clicked all through the storm. The mist frequently lifted from off the Ben during its progress (but never for any length of time) showing thick Cumulus fog clinging to the hill-sides all round. S^W & S E winds all day increasing from force (2-3) at 17^h to a moderate gale at 21^h, but decreased again to force (1-2) at Midnight. The Report to the Newspapers could not be got off till 10^h 40^m p.m. owing to the instrument being short-circuited through the Lightning-protector.

July 7th. The summit was mostly clear between 11^h & 21^h but fog from the surrounding hills was frequently passing over the top. Some heavy showers, like Thunder-showers, fell in the early morning. At 14^h 52^m peals of Thunder were heard to the S W & some faint earth-currents were noticed in the Telegraph-Instrument; a Thunder-cloud was observed stretching from S W to N W, leaving Cirrus trailing out behind. St Elms Fire was heard at 16^h 20^m & was particularly loud during a sharp fall of hail which lasted but two or three minutes. No flashes were seen.

July 8th. After the 4^h observation, the summit cleared for about twenty minutes; the sky at this time was cloudless except for a little Cirrus but thick banks of fog lay all round & covered the hill some time before 5^h. At 23^h the top was again clear but the sky was completely overcast & rain falling; whilst mist covered the surrounding hills, the hills across the Nevers only being seen. At midnight it had cleared slightly

1894

July 8th (cont'd).

to N^d but there was a thick haze with a layer of low-240
lying fog in Glen Spean, & Loch Loidy could not be seen.
The 7th observation was started at 5^h 1^m 30^s

July 9th. Mist with drizzling rain almost all day. The Ben
was clear at 19^h & 20^h but the sky almost completely
covered with a lower layer of Cumulus-stratus & apparently
Cirro-Cumulus above this. Detached fog lay on the surround-
ing hills and a dark, gloomy appearance was noted to E^d & SE^d

July 10th Heavy rain and mist till 15^h; the top then cleared
but the sky continued overcast or nearly so right
on till midnight. The Cumulus-fog on the surrounding
hills gradually disappeared, but was replaced by a
thin haze (with Stratus-fog in the valleys to N & NE) This
fog gradually became continuous, till it completely
covered Glen More & was apparently continuous
with a thick bank of haze or (thin Stratus-fog) to E^d.
Detached patches of Stratus-fog lay also in the SW & SE^m
valleys at midnight, ^{at this time} & was then passing over the Ben
almost causing saturation.

July 11th. At 1^h a layer of thin stratus-haze surrounded
the summit just up to our level & was passing
at times but disappeared shortly afterwards. The Stratus-
fog increased in amount until at 5^h it was contin-
uous all round to about 2500 ft. The fog rose in the
course of the day to form Cumulus-cloud & there was
no fog below at 14^h. The sky was overcast or nearly
so all day & the clouds were very low all afternoon
frequently tipping the surrounding hills & at times
passing as fog or mist. At 20^h small patches began to
form on the hill-sides & increased in amount, ~~passing~~
ing over the top at times till midnight. The air was
pretty clear to SW in evening, Islay being distinctly
seen. The sunset was very fine, a thin fog causing
the sun's disc to assume a rich rosy hue. Heavy
rain appeared to be falling to E^d at 3^h & passing showers
were noticed to W, N & E, at 20^h. Halos were seen
at 9^h & 11^h.

1894

241

July 12th Summit mostly clear till 10th, but sky overcast or nearly so fog passing at times. Mist with heavy rain after 11th.

July 14th Top cleared at midnight, but sky was overcast & mist lay all round to about 3000 ft;

Northward was clear of fog, except for a few small patches, the valley to at 2th; wet mist, with drizzle at times after 3th.

July 15th The sky was only slightly cloudy from 2th to 14th but fog lay all round to about our level & frequently passed over the Ben either as dry fog or wet mist. Fog was on the summit from 15th to 19th, after which it sank below our level, leaving sky cloudless the rest of the day, except for a little Cirrus in the S.W. sky from 22th. A sheet of Cirro-stratus covered the W. & S.W. horizon & streaks of filmy Cirrus were seen to N². The Visibility from 20th onwards, was estimated, as all the surrounding hills were completely covered by fog.

A triple fogbow was seen about midday & again at 19th 30. Some fine glories were seen in the evening, ~~the~~ one surrounding the shadow of the tower had five series of rings at 20th.

July 16th At 1th the sky was almost half covered with parallel streaks of Cirrus lying East & West & having a moderate motion from Westward; this increased in amount & at 3th the sky was almost overcast by a sort of Noah's Ark with its points of convergence lying N.W. by W. & S.E. by E. At 3th the fog showed signs of breaking up into detached masses & had almost completely disappeared from the valley to Northward, but still covered most of the surrounding peaks. Shortly afterwards it began to pass & continued on the summit, with a drizzling rain the rest of the day. The snow has now disappeared from the hill-top except for a patch to W of Hotel & round the edges of the gorges.

INDEX

Anemometer - broken
102-151.

anemometer 7-8-11-14-15
17-21-22-23-27-41.

Aurora 14-16-25-26-27
28-33-34-36-37-41
48-49-50-53-54-55
56-57-58-59-62-67
68-79-82-87-92-93
99-100-107-110-111
115-116-117-118-124
125-129-135-136-138
141-142-146-173-174
182-185-186-190-191
192-214-217-219-221
222-226-

Barograph 209-218

Black Bull 73-83-87
152-158-222-228
238.

British Association 84.

Buchanan 146-150-165
166-

cliff climbed. 222-223

clock 177.

clouds 52-64-119.

Colonies in Sky-48-50
71-153-220-228
235.

chimney 190-

Coronae 13-18-19-24-26-35

36-42-43-44-48-52-61
68-85-88-89-97-107-112
113-114-123-124-130-131-135
141-144-147-170-171-172-177
178-179-180-183-193-194-209
215-220-224-235-

Craig 77-81-82-162-171.

Crescent 79.

Drift 45.

Earth Currents 9-37-38-46
100-113-128-135-137-148
149-164-165-168-169-175
181-201-210-211-212-213
216-217-218-219-222-224
239.

Eclipse of Moon 30.

Fog-Bows 25-27-42-55-75
107-125-133-163-175-177
178-189-194-219-220-241

Frost-Silver 29-189-198-202

Gales 11-22-23-43-49-104
127-193-208.

Glories 3-13-14-15-25-26
27-28-42-82-84-99
104-111-112-125-131-163
172-174-175-178-194-220
227-229-241.

Green Flash 36-37
 Green Sun 49.
 Halo - Lunar 18-24-26-30
 31-42-52-60-68-69
 88-119-131-178-184
 221-224-225
 Halo - Solar 1-2-8-10-16
 18-20-34-47-48-52
 53-55-58-60-61-69
 71-72-81-82-96-100
 101-118-119-129-133
 135-136-137-139-141
 142-143-144-145-146
 147-151-155-162-170
 173-174-226-227-229
 230-232-236-240
 Herbertson 89-94-97.
 Horse 25-72-108-142-232
 Hotel 96-157-185-219-232
 Humidity 118-119.
 Hygrometry 174.
 Instruments - animal cortex
 1891-38-1892-120
 1893-203
 Lightning 7-22-54-
 128-136-154-164-
 166-173-174-175
 198-199-201-211
 212-213-217-239
 Moon 182-183
 Meteor 48-83-98-111

Mirage on Moon 221-
 Mock Morns 60-221.
 Mock Suns 34-55-70-101
 135-143-
 Mossman 52-64-84-170-225
 Mouse 55-57-191-221-232
 Murray 90-
 Newspaper Report 157-160-161
 Observations - late 13-43-46
 47-49-82-90-137-151
 173-177-178-183-240-
 Pearly Clouds 2-3-4-79-80-81
 Ptarmigan 170-
 Rainbow 1-3-13-14-174
 231-
 Rainfall 77-196-212-213-
 Rain gauge 13-36-47-51-80
 102-132-184-199-200
 210-211-217-220-235
 Rankin. A. - Sprained ankle 209.
 Rankin H.F. 81-85
 Rat 70-165
 Raven 231-
 Robin Redbreast 140-
 Rotch 84-
 Shand 171-183

St Elmo's Fire 1-23-24
 31-34-37-66-70-74
 113-127-128-136-139
 164-166-174-187-198
 199-210-212-213-218
 219-230-231-234-239

Snow crystals 32-51-130-
 Snow Bunting 47-49-56-128
 130-134-207-219-221
 222-

Snow - depth of - 211-215-217
 219-238-241-

Snow - overhang at cliff
 132-215.

Spectroscope 37-

Stewart. Ch. M. 84-97
 138-183-229-

Sun - distortion of 51-60
 135-

Sunshine Recorder 182-206

Telegraph Instrument. 64
 78-113-139-151-154
 155-156-157-158-159
 160-161-162-196

Thermometer Box & Stand
 5-6-29-30-43-45
 47-63-74-98-127
 145-168-176-184-202
 206-230-234-237-

Thunder. 1-9-54-136-139
 148-149-152-154-164
 165-166-174-181-212
 213-217-219-239-

Tower Thermometer Screen.
 34-37-43-127-128-132
 198-208-218.

Turnbull 93.

Upper Glen 35-36-133-

Weasil 12-13-15-17-125

Well - Wragges 24-158

Wet-Bull 36-42

Whympen 82-83-93

Wragge 26

Zodiacal Light 28-29-125
 132-221-222-

The year 1892 begins on page	41
" 1893 " "	123
" 1894 " "	206

Remainder of volume is blank

