Sunspot Activity.

	Number of observations	Reduction-factor on Wolf's unit		Number of comparisons
		whole disc	central zone	
Batavia	49	0.96	0.81	46
Catania	67	0.95	0.83	61
Greenwich/Cape	76	0.67	0.74	71
Kiew	40	0.65	0.54	36
Lyons	55	0.89	0.85	53
Roma/Campidoglio	43	0.91	0.82	40
South Hadley	45	0.96	0.92	43
Stonyhurst	66	0.84	0.77	62
Tokyo	67	0.78	0.78	61
Zürich/Arosa	82	0.60	0.60	—

Relative-numbers for the whole sun disc

1933

	Jan.	Feb.	March
1	0	45 ad	10
2	0	48	10
3	8 d	67	10
4	15	59	13
5	17	62 a	11
6	17	67 b	11 a
7	19	53 b	11
8	20	53	14
9	16 a	47	9
10	18 a	33	8
11	17	33	7
12	M 26 c	16	7
13	42	11	0
14	36	8	0
15	27	0	0
16	14	0	0
17	7	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	12 d
23	0	0	14
24	0	0	14
25	0	0	M 24 c
26	0	0	29
27	0	8	26
28	E 9 c	11 d	28 a
29	12		22
30	25		13
31	35 a		10
Mean	12.3	22.2	10.1

Relative-numbers for the central circle zone

1933

	Jan.	Feb.	March
1	0	24	0
2	0	20	0
3	0	22	0
4	0	10	0
5	0	29	11
6	0	58	11
7	9	36	11
8	17	40	9
9	14	28	0
10	18	0	0
11	9	0	0
12	8	0	0
13	14	0	0
14	11	0	0
15	8	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	10
26	0	0	16
27	0	0	15
28	0	0	17
29	0		14
30	7		0
31	22		0
Mean	4.4	9.5	3.7

a = Passage of an average sized group through the central meridian.
b = Passage of a large group or spot through the central meridian.
c = New formation of a centre of activity. E: on the eastern part of the Sun's disc, W: on the western part, M: in the central circle zone.
d = Entrance of a large or average sized centre of activity on the east limb.

Intensity of the ultra-violet Radiation.

(Mount Wilson)

The figures give the ratio ultra-violet ($\lambda = 0.32\ \mu$) to green ($\lambda = 0.50\ \mu$)
(Ratio for June 1924 = 1)

1933

	Jan.	Feb.	March
1	0.90		0.96
2	0.82		1.09
3			1.11
4	0.90		1.14
5	0.88		
6	0.87		1.22
7	0.87		
8	0.85		
9	0.88		
10	0.88		
11		1.22	
12	0.90	1.20	
13	0.93	1.31	1.10
14	0.96		
15			
16			
17			
18		1.20	
19		1.11	1.11
20		1.11	1.01
21		1.01	1.12
22		1.08	
23		1.04	
24		1.30	1.12
25		1.22	
26		1.01	1.11
27		0.97	1.10
28			
29			1.12
30			0.96
31			
Mean	0.89	1.14	1.09

Sunspot Activity.

	Number of observations	Reduction-factor on Wolf's unit		Number of comparisons
		whole disc	central zone	
Batavia				
Catania	89	0.79	0.74	85
Greenwich/Cape	82	0.63	0.65	78
Kiew	66	1.16	1.38	62
Lyons	67	0.71	0.63	64
Roma/Campidoglio	58	0.75	0.70	56
South Hadley	54	0.75	0.62	51
Stonyhurst	81	0.65	0.61	77
Tokyo	48	0.88	0.94	46
Wellington	28	1.51	0.60	27
Zürich/Arosa	87	0.60	0.60	—

Relative-numbers for the whole sun disc

1933

	April	May	June
1	9	0	0
2	8	8	7
3	0	0	7
4	0	0	7
5	0	0	7
6	0	0	14
7	0	0	2
8	0	0	0
9	0	3	0
10	0	8	0
11	0	0	0
12	0	0	0
13	0	0	E 12 c
14	0	0	16
15	0	0	19
16	0	0	14
17	E 13 c	0	10
18	13	0	8
19	20 a	8	8
20	10	12	8
21	8	12	8
22	0	11	9
23	0	17	0
24	0	12	0
25	0	8	0
26	0	0	0
27	0	0	0
28	0	0	0
29	7	0	0
30	0	0	0
31		0	
Mean	2.9	3.2	5.2

Relative-numbers for the central circle zone

1933

	April	May	June
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	7
7	0	0	2
8	0	0	0
9	0	0	0
10	0	8	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	16
15	0	0	19
16	0	0	14
17	0	0	10
18	13	0	8
19	20	8	0
20	10	0	0
21	8	0	0
22	0	0	0
23	0	0	0
24	0	12	0
25	0	7	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31		0	
Mean	1.7	1.1	2.5

a = Passage of an average sized group through the central meridian.
b = Passage of a large group or spot through the central meridian.
c = New formation of a centre of activity. E: on the eastern part of the Sun's disc, W: on the western part, M: in the central circle zone.
d = Entrance of a large or average sized centre of activity on the east limb.

Intensity of the ultra-violet Radiation.

(Mount Wilson)

The figures give the ratio ultra-violet ($\lambda = 0.32\ \mu$) to green ($\lambda = 0.50\ \mu$)
(Ratio for June 1924 = 1)

1933

	April	May	June
1	1.08	1.19	1.09
2	0.96		1.16
3	0.98	1.22	1.06
4	1.02	1.13	
5	1.08		
6	1.00	1.16	1.10
7		1.12	0.96
8			1.05
9	1.00	1.06	1.03
10	1.09		1.02
11	1.02		0.96
12	1.12	1.14	0.93
13	1.06	1.12	0.97
14	1.07	1.04	1.02
15	1.16		1.01
16	1.20	1.14	0.94
17		1.08	0.99
18		1.07	1.00
19		1.01	0.99
20	1.02	0.97	0.97
21	1.01		0.94
22	1.07	1.06	0.93
23	1.01	0.93	0.96
24	1.12	1.07	1.06
25		1.06	1.10
26		1.05	1.16
27		1.04	1.20
28		1 02	1.08
29		1.06	0.99
30			1.01
31		1.13	
Mean	1.06	1.08	1.02

Sunspot Activity.

	Number of observations	Reduction-factor on Wolf's unit		Number of comparisons
		whole disc	central zone	
Batavia				
Catania	90	0.61	0.50	89
Greenwich/Cape	85	0.63	0.84	83
Kiew	72	0.83	0.71	71
Lyons	76	0.80	0.85	75
Roma/Campidoglio	55	1.15	1.57	54
South Hadley				
Stonyhurst	87	0.68	0.63	84
Tokyo	68	0.67	0.64	67
Wellington	24	0 90	0.65	23
Zürich/Arosa	90	0.60	0.60	—

Relative-numbers for the whole sun disc
1933

	July	August	Sept.
1	0	0	0
2	0	0	7
3	0	0	7
4	0	0	7
5	0	0	0
6	7	0	M 15 c *
7	17	0	19
8	17	0	12
9	18	0	11
10	14	0	7
11	8	0	0
12	7	7	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	7
22	0	0	11
23	0	0	11
24	0	0	8
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	11
29	0	0	12
30	0	0	8
31	0	0	
Mean	2.8	0.2	5.1

Relative-numbers for the central circle zone
1933

	July	August	Sept.
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	15
7	0	0	10
8	0	0	0
9	0	0	0
10	7	0	0
11	8	0	0
12	7	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	7
22	0	0	11
23	0	0	11
24	0	0	8
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	11
29	0	0	0
30	0	0	0
31	0	0	
Mean	0.7	0.0	2.4

a = Passage of an average sized group through the central meridian.
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d = Entrance of a large or average sized centre of activity on the east limb.

* Wellington reports a most brillant display of the Aurora Australis observed in the South Island of New Zealand on September 9, 1933 at 7 h 45 m G. M. T.

Intensity of the ultra-violet Radiation.

(Mount Wilson)

The figures give the ratio ultra-violet ($\lambda = 0.32\ \mu$) to green ($\lambda = 0.50\ \mu$)
(Ratio for June 1924 = 1)

1933

	July	August	Sept.
1	1.00	1.06	1.23
2	1.03	1.10	1.17
3	0.98	1.03	1.20
4	0.91	1.01	
5	0.96	0.96	1.26
6	0.94	0.97	1.17
7	0.97	0.94	1.22
8	0.98	0.93	1.14
9	0.99	0.94	1.05
10	1.01		1.10
11	0.96		1.07
12	0.94		1.05
13			1.00
14	0.93		1.05
15			1.03
16	0.98	0.99	0.96
17		1.03	1.05
18	0.96	0.98	0.99
19	0.96	0.99	1.01
20	0.90	1.07	
21	0.96	1.14	0.96
22	0.94	1.09	0.93
23	0.96		1.06
24	0.90	1.12	1.03
25	0.94		1.04
26	0.94	1.06	1.01
27		1.09	1.00
28		1 03	0.94
29	0.94	1.11	
30	1.01	1.28	
31	1.01	1.22	
Mean	0.96	1.05	1.07

Sunspot Activity.

	Number of observations	Reduction-factor on Wolf's unit		Number of comparisons
		whole disc	central zone	
Batavia	59	1.74	1.21	54
Catania	71	0.52	0.42	62
Greenwich/Cape	47	0.72	0.70	39
Kiew	38	0.63	0.74	34
Lyons	42	1.02	1.20	38
Roma/Campidoglio	42	0.68	0.67	39
South Hadley	58	0.95	1.06	51
Stonyhurst	59	0.78	0.98	52
Tokyo	63	0.77	0.91	58
Wellington	42	0.76	0.59	38
Zürich/Arosa	83	0.60	0.60	—

Relative-numbers for the whole sun disc

1933

	Oct.	Nov.	Dec.
1	0	10	0
2	0	0	0
3	0	0	0
4	0	8	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	8	0	0
11	0	0	8
12	2	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	M 7 c	0	0
27	20	0	0
28	19	0	0
29	14	0	0
30	13	0	0
31	10		0
Mean	3.0	0.6	0.3

Relative-numbers for the central circle zone

1933

	Oct.	Nov.	Dec.
1	0	0	0
2	0	0	0
3	0	0	0
4	0	8	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	8	0	0
11	0	0	8
12	2	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	7	0	0
27	20	0	0
28	19	0	0
29	0	0	0
30	0	0	0
31	0		0
Mean	1.8	0.3	0.3

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Intensity of the ultra-violet Radiation.

(Mount Wilson)

The figures give the ratio ultra-violet ($\lambda = 0.32\ \mu$) to green ($\lambda = 0.50\ \mu$)
(Ratio for June 1924 = 1)

1933

	Oct.	Nov.	Dec.
1	0.90	1.07	1.06
2	0.88	0.99	
3	0.97	1.01	
4	0.96	1.03	
5	0.94	1.06	1.17
6		1.10	1.10
7	0.90	1.12	1.13
8	0.90	1.07	
9		1.03	
10	0.93	1.09	1.13
11		1.20	1.00
12	1.05	1.06	
13	0.93	0.93	
14	1.01	0.96	
15	0.97	0.98	
16	0.88	1.08	
17	0.90	1.03	1.06
18	0.88	1.00	
19	0.90	1.07	1.04
20	0.98		0.96
21	0.88	0.94	0.96
22	0.93	0.96	0.99
23	0.96		0.90
24	0.96	0.97	0.94
25	0.96	0.93	0.88
26	1.08		
27	1.14	1.10	1.01
28	1.10		0.90
29	1.14	1.22	1.05
30	1.22		
31	1.03		
Mean	0.97	1.04	1.02