

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	2h32m	1	2	4	14	5	16	66	0	0	2	
2		-	-	-	-	-	-	-	-	-	-	M
3	4:11	0	0	3	16	3	16	46	0	0	2	
4		-	-	-	-	-	-	-	-	-	-	C
5	4:03	1	1	6	34	7	35	105	3	11	3	
6		-	-	-	-	-	-	-	-	-	-	M
7		-	-	-	-	-	-	-	-	-	-	R
8	2:23	3	10	5	39	8	49	129	4	37	1 - 2	
9		-	-	-	-	-	-	-	-	-	-	C
10		-	-	-	-	-	-	-	-	-	-	C
11	4:00	3	22	5	25	8	47	127	5	25	3	
12	4:00	2	21	4	31	6	52	112	3	38	2 - 3	
13	3:51	2	22	6	35	8	57	137	4	40	4	
14		-	-	-	-	-	-	-	-	-	-	C
15		-	-	-	-	-	-	-	-	-	-	S
16		-	-	-	-	-	-	-	-	-	-	C
17	4:34	2	6	3	26	5	32	82	1	3	2 - 3	
18		-	-	-	-	-	-	-	-	-	-	C
19	2:34	2	4	5	33	7	37	107	3	25	4	
20	2:02	1	2	4	27	5	29	79	4	21	3	
21	3:46	1	2	3	20	4	22	62	2	12	2	
22	3:31	1	2	3	12	4	14	54	1	2	2 - 3	
23	2:20	2	3	2	6	4	9	49	2	5	2	
24		-	-	-	-	-	-	-	-	-	-	S
25		-	-	-	-	-	-	-	-	-	-	S
26	4:09	2	5	2	5	4	10	50	2	5	3	
27		-	-	-	-	-	-	-	-	-	-	C
28	2:20	1	1	3	13	4	14	54	1	9	2 - 3	
29	4:42	0	0	3	14	3	14	44	0	0	2	
30	3:49	0	0	3	12	3	12	42	0	0	3 - 4	
31	4:14	0	0	3	14	3	14	44	0	0	4	
Sum		343		1046		1389			583			
Mean		19.1		58.1		77.2			32.4			

Days 18

8cm Refractor X67 Projection

POLAR FACULAE (Days 18)

<u>N</u>	<u>S</u>
<u>0.06</u>	<u>0.72</u>
<u>0.78</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f			Cent.		Seeing	Remarks
		g	f	g	f	g	f	R	g	f		
1	4h10m	0	0	3	14	3	14	44	2	10	3	
2	4:03	1	4	2	14	3	18	48	1	10	2	
3	4:10	4	32	2	19	6	51	111	3	17	3	
4	2:12	3	63	2	11	5	74	124	2	20	2	
5	2:26	3	75	4	16	7	91	161	1	25	2	
6	1:46	3	70	5	31	8	101	181	3	26	2	naked eye=1b
7		-	-	-	-	-	-	-	-	-	-	R
8	2:44	5	66	2	47	7	113	183	5	58	2 - 3	naked eye=2b
9	6:07	6	56	3	56	9	112	202	6	99	2 - 3	naked eye=2b
10	3:42	5	36	2	69	7	105	175	5	87	3	naked eye=2b
11	5:20	4	16	1	58	5	74	124	3	61	1 - 2	naked eye=1b
12	0:28	4	25	1	63	5	88	138	1	63	4	naked eye=1b
13	2:53	4	22	1	56	5	78	128	1	38	3	naked eye=1c
14	1:26	3	18	2	47	5	65	115	1	11	1 - 2	
15	3:26	3	15	2	35	5	50	100	1	11	3	
16		-	-	-	-	-	-	-	-	-	-	C
17		-	-	-	-	-	-	-	-	-	-	S-C
18	3:13	4	28	4	21	8	49	129	2	29	3 - 4	
19	4:23	2	21	5	31	7	52	122	2	27	3	
20	2:50	2	12	7	35	9	47	137	4	15	3	
21		-	-	-	-	-	-	-	-	-	-	R
22	5:39	3	22	5	37	8	59	139	4	20	3	
23	2:20	3	31	5	35	8	66	146	5	36	2	
24	3:34	2	23	4	34	6	57	117	3	32	3	
25	3:02	3	28	4	33	7	61	131	2	36	2	
26	2:24	3	24	4	19	7	43	113	3	31	3	
27	2:40	3	36	4	15	7	51	121	3	31	2	
28		-	-	-	-	-	-	-	-	-	-	S-C
Sum		1453		1536		2989			1423			
Mean		63.2		66.8		130.0			61.9			

Days 23

POLAR FACULAE(Days 21)

<u>N</u>	<u>S</u>
0.00	1.24

8cm Refractor X67 Projection 15cm

1.24

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	7h00m	3	45	2	6	5	51	101	2	31	2	
2	3:10	2	54	2	7	4	61	101	2	47	3	
3	3:36	3	53	3	20	6	73	133	2	48	4	
4	5:00	2	49	3	36	5	85	135	1	46	3	
5	2:50	5	58	4	38	9	96	186	3	8	3 - 4	
6	-	-	-	-	-	-	-	-	-	-	-	M
7	5:30	2	14	4	56	6	70	130	4	53	3	naked eye=1b
8	4:27	3	16	3	57	6	73	133	5	72	3	naked eye=1b
9	4:18	2	14	3	43	5	57	107	5	57	2	naked eye=1b
10	4:37	3	12	3	42	6	54	114	4	51	3 - 4	naked eye=1b
11	2:02	3	10	4	47	7	57	127	5	49	2 - 3	naked eye=1b
12	-	-	-	-	-	-	-	-	-	-	-	C
13	4:15	2	33	2	21	4	54	94	0	0	2	
14	2:46	2	31	1	12	3	43	73	0	0	3	
15	-	-	-	-	-	-	-	-	-	-	-	R-S
16	4:18	1	36	3	5	4	41	81	1	36	4	
17	3:43	1	37	3	11	4	48	88	1	37	5	
18	3:44	1	35	4	17	5	52	102	1	34	3	
19	4:21	1	31	4	25	5	56	106	2	6	3	
20	2:12	2	35	4	17	6	52	112	4	9	3 - 4	
21	2:18	3	34	3	17	6	51	111	3	17	2 - 3	
22	4:06	3	27	3	23	6	50	110	5	31	3	
23	2:34	2	15	4	21	6	36	96	4	21	3 - 4	
24	-	-	-	-	-	-	-	-	-	-	-	C-R
25	2:06	3	9	1	10	4	19	59	1	5	3	
26	2:40	3	9	1	7	4	16	56	1	4	1 - 2	
27	3:05	3	17	2	9	5	26	76	1	2	4 - 5	
28	-	-	-	-	-	-	-	-	-	-	-	R
29	4:29	2	22	1	2	3	24	54	1	1	1 - 2	
30	2:46	2	33	2	14	4	47	87	2	20	3	
31	-	-	-	-	-	-	-	-	-	-	-	C
Sum		1319		1253		2572			1285			
Mean		52.8		50.1		102.9			51.4			

Days 25

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 21)

<u>N</u>	<u>S</u>
0.05	2.10
<u>2.14</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	2h44m	1	27	3	24	4	51	91	3	44	2 - 3	
2	3:21	2	17	3	28	5	45	95	4	32	3	
3	3:39	2	9	5	47	7	56	126	5	44	4 - 5	
4		-	-	-	-	-	-	-	-	-		C
5	3:53	1	4	5	41	6	45	105	3	28	2	
6	3:01	1	4	5	52	6	56	116	3	46	3	
7	1:40	1	1	6	73	7	74	144	4	62	2	
8	3:04	0	0	3	72	3	72	102	1	48	4 - 5	
9	7:10	2	15	2	68	4	83	123	3	59	2	
10	6:41	2	18	2	52	4	70	110	0	0	2 - 3	
11		-	-	-	-	-	-	-	-	-		M
12	2:28	3	14	1	18	4	32	72	1	1	3	
13	1:44	1	4	1	4	2	8	28	0	0	3	
14	2:44	1	2	1	1	2	3	23	0	0	3	
15	2:30	1	7	0	0	1	7	17	0	0	2	
16	2:20	1	5	0	0	1	5	15	0	0	4	
17		-	-	-	-	-	-	-	-	-		M
18	4:11	3	15	2	5	5	20	70	2	4	4	
19	3:05	2	21	1	12	3	33	63	1	1	4	
20	4:17	3	42	3	34	6	76	136	4	22	5	
21	2:30	2	37	4	53	6	90	150	5	64	4 - 5	
22		-	-	-	-	-	-	-	-	-		C-R
23	5:00	2	30	4	36	6	66	126	5	64	2	
24		-	-	-	-	-	-	-	-	-		C
25	1:02	3	26	4	36	7	62	132	2	10	3	
26	2:21	2	24	2	17	4	41	81	1	3	4 - 5	
27	3:57	2	19	2	13	4	32	72	1	6	2	
28		-	-	-	-	-	-	-	-	-		C-R
29		-	-	-	-	-	-	-	-	-		R-C
30	6:46	1	5	3	10	4	15	55	2	7	2	
Sum			736		1316			2052		1045		
Mean			32.0		57.2			89.2		45.4		

Days 23

POLAR FACULAE(Days 22)

N S

8cm Refractor X67 Projection 15cm

0.09 1.77

1.86

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	4h10m	1	6	1	7	2	13	33	2	9	3	
2		-	-	-	-	-	-	-	-	-	-	R
3		-	-	-	-	-	-	-	-	-	-	C
4	8:30	2	4	4	22	6	26	86	3	13	2	
5	4:00	2	18	6	23	8	41	121	4	9	5	
6		-	-	-	-	-	-	-	-	-	-	C
7	4:16	2	44	2	6	4	50	90	2	6	3	
8	-1:20	2	59	1	9	3	68	98	2	31	2	
9		-	-	-	-	-	-	-	-	-	-	C-R
10	5:24	4	84	2	18	6	102	162	4	88	2	naked eye=1c
11	2:59	4	83	3	15	7	98	168	2	78	3	
12	3:30	3	72	3	11	6	83	143	1	45	3	
13	3:25	3	65	2	4	5	69	119	2	4	2 - 3	
14		-	-	-	-	-	-	-	-	-	-	R
15	3:26	4	21	0	0	4	21	61	1	4	3	
16	3:25	4	13	1	2	5	15	65	3	10	3 - 4	
17		-	-	-	-	-	-	-	-	-	-	C
18		-	-	-	-	-	-	-	-	-	-	R-C
19	3:37	1	4	0	0	1	4	14	0	0	3	
20	3:40	2	5	1	2	3	7	37	0	0	4	
21	4:02	2	5	2	3	4	8	48	0	0	4	
22		-	-	-	-	-	-	-	-	-	-	R
23	1:30	0	0	1	2	1	2	12	0	0	1 - 2	
24	6:50	2	4	1	2	3	6	36	1	2	3	
25	1:59	4	11	1	2	5	13	63	1	2	3 - 4	
26	3:45	4	21	2	3	6	24	84	3	5	4 - 5	
27	2:02	2	32	0	0	2	32	52	0	0	3	
28	2:30	3	54	0	0	3	54	84	1	27	2	
29	3:20	3	83	0	0	3	83	113	1	31	3 - 4	
30		-	-	-	-	-	-	-	-	-	-	C
31	7:40	3	60	1	2	4	62	102	3	56	1 - 2	
Sum		1318		473		1791			780			
Mean		59.9		21.5		81.4			35.5			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 18)

<u>N</u>	<u>S</u>
0.17	1.61
<u>1.78</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	4h17m	4	82	1	13	5	95	145	3	66	3	
2		-	-	-	-	-	-	-	-	-	-	C
3		-	-	-	-	-	-	-	-	-	-	M
4		-	-	-	-	-	-	-	-	-	-	C
5		-	-	-	-	-	-	-	-	-	-	C
6	1:47	4	27	1	41	5	68	118	2	52	3	
7	5:29	4	19	1	39	5	58	108	3	53	3	
8		-	-	-	-	-	-	-	-	-	-	C
9		-	-	-	-	-	-	-	-	-	-	R
10		-	-	-	-	-	-	-	-	-	-	M
11	3:39	2	7	1	23	3	30	60	1	4	2 - 3	
12	5:33	2	4	0	0	2	4	24	1	3	2	
13		-	-	-	-	-	-	-	-	-	-	C
14		-	-	-	-	-	-	-	-	-	-	C
15		-	-	-	-	-	-	-	-	-	-	C-R
16	4:41	2	3	0	0	2	3	23	1	1	2	
17	1:55	2	5	0	0	2	5	25	1	3	3	
18	2:29	1	2	0	0	1	2	12	0	0	4 - 5	
19		-	-	-	-	-	-	-	-	-	-	R
20	1:10	0	0	1	8	1	8	18	1	8	3	
21	4:05	2	2	1	12	3	14	44	2	7	3	
22	4:30	1	2	1	10	2	12	32	0	0	2 - 3	
23		-	-	-	-	-	-	-	-	-	-	R
24	4:26	2	21	2	9	4	30	70	2	21	4	
25	4:23	2	16	3	10	5	26	76	2	16	3	
26		-	-	-	-	-	-	-	-	-	-	R
27	0:30	3	12	2	37	5	49	99	4	10	3	
28		-	-	-	-	-	-	-	-	-	-	C
29		-	-	-	-	-	-	-	-	-	-	R
30		-	-	-	-	-	-	-	-	-	-	R
Sum			512		342			854		474		
Mean			36.6		24.4			61.0		33.9		

Days 14

POLAR FACULAE(Days 14)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.79	0.57
<u>1.36</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1		-	-	-	-	-	-	-	-	-		C
2		-	-	-	-	-	-	-	-	-		C
3	2h54m	2	6	3	36	5	42	92	2	31	2	
4	2:40	2	4	3	30	5	34	84	0	0	1 - 2	
5		-	-	-	-	-	-	-	-	-		R
6	2:37	3	9	2	19	5	28	78	1	7	3	
7	5:10	3	4	2	17	5	21	71	1	10	2 - 3	
8	4:00	2	3	1	4	3	7	37	2	5	1 - 2	
9	5:04	1	2	2	8	3	10	40	2	8	2 - 3	
10	4:28	1	3	2	5	3	8	38	2	4	4 - 5	
11	7:10	2	13	1	4	3	17	47	2	13	2	
12		-	-	-	-	-	-	-	-	-		R-C
13		-	-	-	-	-	-	-	-	-		R
14		-	-	-	-	-	-	-	-	-		R
15	1:36	3	15	2	22	5	37	87	4	27	3	
16	2:32	3	20	2	11	5	31	81	3	19	4	
17		-	-	-	-	-	-	-	-	-		M
18		-	-	-	-	-	-	-	-	-		M
19		-	-	-	-	-	-	-	-	-		C
20		-	-	-	-	-	-	-	-	-		C
21		-	-	-	-	-	-	-	-	-		C
22	4:23	1	9	4	25	5	34	84	3	28	3	
23	3:40	2	9	3	18	5	27	77	4	25	1 - 2	
24		-	-	-	-	-	-	-	-	-		C
25		-	-	-	-	-	-	-	-	-		M
26	4:30	1	2	4	9	5	11	61	2	5	2	
27		-	-	-	-	-	-	-	-	-		C
28	3:10	2	4	4	23	6	27	87	4	23	2 - 3	
29	2:28	2	10	4	20	6	30	90	4	25	3 - 4	
30		-	-	-	-	-	-	-	-	-		C-R
31	2:50	3	12	1	7	4	19	59	3	12	3 - 4	
Sum		455		658		1113			632			
Mean		28.4		41.1		69.6			39.5			

Days 16

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 10)

<u>N</u>	<u>S</u>
0.80	0.20
<u>1.00</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	0h18m	2	12	1	2	3	14	44	2	10	3	
2		-	-	-	-	-	-	-	-	-	-	M
3		-	-	-	-	-	-	-	-	-	-	R
4		-	-	-	-	-	-	-	-	-	-	C
5		-	-	-	-	-	-	-	-	-	-	C
6		-	-	-	-	-	-	-	-	-	-	C
7	4:10	1	25	2	2	3	27	57	3	27	3	
8		-	-	-	-	-	-	-	-	-	-	R
9	6:10	3	28	0	0	3	28	58	1	16	2	
10		-	-	-	-	-	-	-	-	-	-	C
11	5:59	4	30	1	10	5	40	90	3	7	2	
12	5:05	4	22	1	16	5	38	88	2	5	3	
13		-	-	-	-	-	-	-	-	-	-	M
14	7:10	1	2	2	19	3	21	51	1	4	2	
15	3:45	0	0	2	19	2	19	39	1	17	3	
16		-	-	-	-	-	-	-	-	-	-	C
17		-	-	-	-	-	-	-	-	-	-	R
18		-	-	-	-	-	-	-	-	-	-	C
19	2:17	0	0	2	7	2	7	27	2	2	2	
20		-	-	-	-	-	-	-	-	-	-	C
21		-	-	-	-	-	-	-	-	-	-	C
22	3:59	1	6	4	15	5	21	71	2	11	4	
23	3:40	1	5	3	13	4	18	58	1	10	3 - 4	
24	3:59	2	8	4	16	6	24	84	2	12	3	
25	1:23	3	10	3	8	6	18	78	2	11	3	
26		-	-	-	-	-	-	-	-	-	-	C
27		-	-	-	-	-	-	-	-	-	-	R-C
28	2:59	3	20	1	4	4	24	64	2	10	4	
29	- 11	3	19	1	3	4	22	62	2	8	3	
30	3:47	3	12	0	0	3	12	42	2	4	3	
31	6:10	3	10	0	0	3	10	40	2	7	1 - 2	
Sum		549		404		953			461			
Mean		34.3		25.3		59.6			28.8			

Days 16

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 13)

<u>N</u>	<u>S</u>
1.00	0.08

1.08

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f			Cent.		Seeing	Remarks
		g	f	g	f	g	f	R	g	f		
1	1h40m	4	9	0	0	4	9	49	2	6	3	
2	4:21	2	4	0	0	2	4	24	0	0	2	
3		-	-	-	-	-	-	-	-	-	-	R
4	2:20	2	9	0	0	2	9	29	0	0	1 - 2	
5	2:15	1	5	1	4	2	9	29	1	5	3	
6		-	-	-	-	-	-	-	-	-	-	C
7		-	-	-	-	-	-	-	-	-	-	R
8		-	-	-	-	-	-	-	-	-	-	R
9		-	-	-	-	-	-	-	-	-	-	R
10		-	-	-	-	-	-	-	-	-	-	M
11	5:28	0	0	0	0	0	0	0	0	0	2	
12	4:50	0	0	0	0	0	0	0	0	0	2	
13		-	-	-	-	-	-	-	-	-	-	R-C
14		-	-	-	-	-	-	-	-	-	-	R
15	2:20	0	0	1	2	1	2	12	0	0	1 - 2	
16	3:19	1	1	3	10	4	11	51	1	1	5	
17		-	-	-	-	-	-	-	-	-	-	C
18	7:00	0	0	2	13	2	13	33	1	2	2	
19	7:30	0	0	1	10	1	10	20	1	10	4 - 5	
20	2:00	0	0	2	9	2	9	29	2	9	2 - 3	
21		-	-	-	-	-	-	-	-	-	-	R
22		-	-	-	-	-	-	-	-	-	-	R
23		-	-	-	-	-	-	-	-	-	-	R-C
24	4:30	0	0	1	26	1	26	36	1	26	2	
25	2:55	2	6	1	31	3	37	67	3	37	3 - 4	
26	6:21	2	10	1	26	3	36	66	2	35	3 - 4	
27	4:05	2	12	1	26	3	38	68	2	13	4	
28	2:01	3	33	1	10	4	43	83	1	8	3	
29	2:30	3	33	1	4	4	37	77	0	0	2	
30		-	-	-	-	-	-	-	-	-	-	R
Sum			342		331			673		322		
Mean			20.1		19.5			39.6		18.9		

Days 17

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 15)

<u>N</u>	<u>S</u>
2.27	0.20
2.47	

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1	1h22m	2	62	1	4	3	66	96	1	20	4	naked eye=1b
2	0:09	2	62	1	9	3	71	101	2	59	3	naked eye=1b
3		-	-	-	-	-	-	-	-	-		C-R
4	3:19	2	54	2	31	4	85	125	1	51	2 - 3	naked eye=1b
5		-	-	-	-	-	-	-	-	-		C
6		-	-	-	-	-	-	-	-	-		C
7		-	-	-	-	-	-	-	-	-		C
8		-	-	-	-	-	-	-	-	-		R
9	2:02	1	17	3	43	4	60	100	1	2	3	
10	3:54	0	0	2	43	2	43	63	0	0	3	
11	2:41	1	2	2	41	3	43	73	0	0	3 - 4	
12	2:16	1	2	3	28	4	30	70	1	2	3	
13		-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-		M
15	3:28	1	7	1	9	2	16	36	2	14	4	
16		-	-	-	-	-	-	-	-	-		C
17		-	-	-	-	-	-	-	-	-		M
18		-	-	-	-	-	-	-	-	-		C
19	3:20	0	0	2	5	2	5	25	0	0	1 - 2	
20	4:23	2	14	3	11	5	25	75	2	6	4	
21	4:22	1	11	4	31	5	42	92	4	31	4	
22	3:16	1	2	3	29	4	31	71	4	31	3	
23	3:50	1	8	2	15	3	23	53	2	6	1 - 2	
24	1:58	1	13	3	21	4	34	74	1	2	2 - 3	
25	4:21	1	8	3	10	4	18	58	1	1	3	
26	4:08	3	13	3	5	6	18	78	2	3	3 - 4	
27	3:37	2	7	2	8	4	15	55	1	1	4	
28	3:19	2	6	1	2	3	8	38	1	4	4	
29	2:51	1	2	1	1	2	3	23	1	2	4	
30		-	-	-	-	-	-	-	-	-		R
31	0:15	1	9	1	7	2	16	36	1	9	2	
Sum			559		783			1342		524		
Mean			28.0		39.2			67.1		26.2		

Days 20

POLAR FACULAE (Days 18)

N S

8cm Refractor X67 Projection 15cm

1.50 0.72

2.22

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1.	Remarks
		g	f	g	f	g	f	R	g	f		
1	2h15m	0	0	1	8	1	8	18	0	0	2	
2	2:10	0	0	1	8	1	8	18	0	0	2	
3	3:51	0	0	1	15	1	15	25	1	11	3	naked eye=1c
4	1:22	0	0	1	17	1	17	27	1	17	3	naked eye=1b
5	2:39	0	0	3	17	3	17	47	2	16	3 - 4	naked eye=1b
6	1:40	1	2	2	12	3	14	44	1	11	2	naked eye=1b
7	4:35	1	2	2	18	3	20	50	1	9	3	naked eye=1c
8		-	-	-	-	-	-	-	-	-		R
9	2:32	1	1	2	10	3	11	41	0	0	2 - 3	
10	2:46	1	2	1	8	2	10	30	1	2	4	
11		-	-	-	-	-	-	-	-	-		R-C
12	1:02	0	0	0	0	0	0	0	0	0	4 - 5	
13		-	-	-	-	-	-	-	-	-		C-R
14	2:46	1	26	0	0	1	26	36	0	0	4	
15	4:05	1	31	0	0	1	31	41	0	0	3	
16	4:00	1	44	0	0	1	44	54	1	12	4	naked eye=1c
17	4:50	1	45	0	0	1	45	55	1	45	4	naked eye=1c
18	0:50	1	43	0	0	1	43	53	1	43	2	naked eye=1c
19	2:18	2	45	0	0	2	45	65	1	44	4	naked eye=1b
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		R
22	2:39	3	46	1	1	4	47	87	1	10	3	
23		-	-	-	-	-	-	-	-	-		M
24	2:02	3	43	0	0	3	43	73	1	24	2	
25	3:22	2	38	0	0	2	38	58	2	33	2 - 3	
26		-	-	-	-	-	-	-	-	-		M
27		-	-	-	-	-	-	-	-	-		C
28		-	-	-	-	-	-	-	-	-		C
29	4:20	2	7	2	13	4	20	60	2	16	2	
30	2:00	1	10	3	22	4	32	72	3	29	2 - 3	
Sum		605		349		954			522			
Mean		28.8		16.6		45.4			24.9			

Days 21

POLAR FACULAE(Days 19)

	<u>N</u>	<u>S</u>
8cm Refractor X67 Projection 15cm	<u>0.42</u>	<u>0.79</u>
	<u>1.21</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1993 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1		-	-	-	-	-	-	-	-	-		C
2	6h10m	1	24	3	16	4	40	80	2	16	1 - 2	
3		-	-	-	-	-	-	-	-	-		M
4	4:03	1	5	4	31	5	36	86	2	9	3	
5	2:32	1	2	5	37	6	39	99	1	10	2 - 3	
6	4:26	0	0	3	37	3	37	67	3	28	3	
7	3:40	0	0	5	60	5	60	110	4	57	4	
8	3:50	0	0	3	56	3	56	86	3	52	2	
9	3:02	1	2	3	42	4	44	84	3	43	3	
10		-	-	-	-	-	-	-	-	-		C
11	4:49	0	0	2	14	2	14	34	0	0	2	
12	3:13	0	0	2	9	2	9	29	0	0	3 - 4	
13	2:25	0	0	2	4	2	4	24	0	0	2	
14		-	-	-	-	-	-	-	-	-		C
15	1:40	2	3	0	0	2	3	23	1	1	1 - 2	
16	3:54	2	9	0	0	2	9	29	1	7	1 - 2	
17	2:43	2	8	0	0	2	8	28	1	6	1	
18	1:47	3	8	0	0	3	8	38	1	4	1 - 2	
19	2:03	3	6	0	0	3	6	36	2	5	4	
20		-	-	-	-	-	-	-	-	-		C
21		-	-	-	-	-	-	-	-	-		C
22		-	-	-	-	-	-	-	-	-		M
23	2:28	2	43	0	0	2	43	63	0	0	1 - 2	
24	2:08	2	47	0	0	2	47	67	1	25	3 - 4	
25	2:43	1	83	0	0	1	83	93	1	83	4 - 5	naked eye=1c
26	2:47	1	77	0	0	1	77	87	1	77	1 - 2	naked eye=1c
27	3:53	1	66	1	2	2	68	88	2	68	2 - 3	naked eye=1c
28	4:00	1	51	0	0	1	51	61	1	40	1 - 2	
29	4:43	2	58	2	8	4	66	106	2	4	4	
30	4:08	2	56	1	10	3	66	96	0	0	1 - 2	
31		-	-	-	-	-	-	-	-	-		R
Sum		828		686		1514			855			
Mean		36.0		29.8		65.8			37.2			

Days 23

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 20)

<u>N</u>	<u>S</u>
0.25	0.90
<u>1.15</u>	