

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1989 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		-	-	-	-	-	-	-	-	-	-	M
2	2h00m	4	33	6	70	10	103	203	3	25	3 - 4	
3	2:45	5	19	7	50	12	69	189	2	9	2 - 3	
4	- 05	3	22	5	48	8	70	150	1	13	3 - 4	
5	2:15	3	29	6	55	9	84	174	0	0	2	
6	2:25	4	33	6	39	10	72	172	1	9	2 - 3	
7	4:50	4	43	7	47	11	90	200	2	20	2 - 3	
8		-	-	-	-	-	-	-	-	-	-	R
9		-	-	-	-	-	-	-	-	-	-	R
10	2:29	4	45	6	97	10	132	232	4	51	3	naked eye=1b
11	3:36	4	34	8	91	12	125	245	4	38	2 - 3	naked eye=1a
12		-	-	-	-	-	-	-	-	-	-	C
13		-	-	-	-	-	-	-	-	-	-	C
14		-	-	-	-	-	-	-	-	-	-	C
15	0:36	5	59	6	77	11	136	246	5	56	2 - 3	naked eye=1a
16	3:48	5	66	6	55	11	121	231	5	68	2	naked eye=1b,
17	2:06	4	67	4	51	8	118	198	3	63	2 - 3	naked eye=2c
18	1:23	7	82	3	35	10	117	217	2	17	4	naked eye=1c
19		-	-	-	-	-	-	-	-	-	-	R
20		-	-	-	-	-	-	-	-	-	-	R
21	3:31	7	57	2	5	9	62	152	1	6	3	
22	3:34	9	53	5	9	14	62	202	3	8	2	
23		-	-	-	-	-	-	-	-	-	-	S
24	3:17	6	70	2	35	8	105	185	3	5	3	naked eye=1c
25	3:10	5	71	1	38	6	109	169	2	43	2	naked eye=1c
26	2:30	4	58	2	50	6	108	168	3	56	2	naked eye=1c
27	4:01	4	56	3	71	7	127	197	4	86	2	naked eye=1c
28	1:45	3	48	4	79	7	127	197	4	89	2	naked eye=1c
29	4:00	4	45	6	83	10	128	228	2	61	2	
30	2:24	4	37	4	74	8	111	191	3	61	2	
31	3:44	4	27	4	65	8	92	172	2	48	3	
Sum		2074		2244		4318			1422			
Mean		94.3		102.0		196.3			64.6			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N 0.90 S 0.23
0.23

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1939 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	5h36m	2	8	7	56	9	64	154	1	32	2	
2	2:50	2	5	8	49	10	54	154	2	34	1 - 2	
3	3:40	5	15	9	47	13	62	192	3	32	2	
4	2:06	5	17	7	35	12	52	172	3	13	2	
5	3:42	4	25	5	19	9	44	134	3	7	2	
6	2:17	4	38	5	17	9	55	145	3	10	2	
7	4:03	5	56	4	12	9	68	158	5	14	2	
8		-	-	-	-	-	-	-	-	-		C-R
9	2:40	5	83	5	33	10	116	216	4	20	2	naked eye=1c
10		-	-	-	-	-	-	-	-	-		C
11	1:46	5	103	5	45	10	148	248	3	10	2	naked eye=1b
12	2:30	7	104	2	40	9	144	234	3	27	2	naked eye=1b
13	1:40	6	90	3	54	9	144	234	3	76	2	naked eye=2c
14	2:47	7	91	2	55	9	146	236	3	88	2	naked eye=1b
15	4:58	8	77	5	48	13	125	255	5	67	3	naked eye=1b
16		-	-	-	-	-	-	-	-	-		C-R
17		-	-	-	-	-	-	-	-	-		R
18		-	-	-	-	-	-	-	-	-		R-C
19		-	-	-	-	-	-	-	-	-		M
20	3:40	4	23	5	44	9	67	157	3	37	1	
21		-	-	-	-	-	-	-	-	-		C-S
22	2:15	2	40	4	55	6	95	155	4	81	1 - 2	naked eye=2c
23	2:42	1	37	4	59	5	96	146	4	56	2	naked eye=1c
24		-	-	-	-	-	-	-	-	-		S-R
25		-	-	-	-	-	-	-	-	-		R
26		-	-	-	-	-	-	-	-	-		M
27	0:32	4	39	6	35	10	74	174	5	32	2	
28	4:00	4	22	3	29	7	51	121	3	33	2 - 1	
Sum		1673		1612		3295			1269			
Mean		92.9		89.6		192.5			70.5			

Days 19

8cm Refractor X67 Projection 15cm

POLAR FACULAE	
N	S
0.00	0.20
0.20	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1989 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	3h15m	4	56	2	19	6	75	135	3	53	4	
3	2:50	4	48	2	8	6	56	116	2	19	3	
4		-	-	-	-	-	-	-	-	-		C-R
5		-	-	-	-	-	-	-	-	-		S
6	2:49	5	30	1	4	6	34	94	1	3	2 - 3	
7		-	-	-	-	-	-	-	-	-		C
8	2:20	4	56	2	11	6	67	127	1	2	2	
9	0:19	5	72	3	24	8	96	176	2	12	3	naked eye=lb
10	2:31	6	83	3	32	9	115	205	2	12	2	naked eye=la
11	2:17	5	69	4	36	9	105	195	4	7	3	naked eye=la
12	1:57	5	87	6	39	11	126	236	4	25	4	naked eye=la
13		-	-	-	-	-	-	-	-	-		R
14	3:00	6	99	5	38	11	137	247	4	35	3	naked eye=la
15	1:23	4	87	4	34	8	121	201	3	29	3 - 2	naked eye=lb
16	0:27	5	91	5	39	10	130	230	4	30	3 - 4	naked eye=lc
17	3:40	3	96	3	29	11	125	235	5	41	2 - 1	
18	2:33	3	81	4	27	12	108	228	2	23	2 - 3	
19	3:10	6	46	3	19	9	65	155	1	14	2 - 3	
20	3:34	4	48	5	38	9	86	176	4	45	2	naked eye=lc
21	4:27	4	54	6	51	10	105	205	6	74	2 - 3	naked eye=lc
22	2:50	5	63	3	29	8	92	172	4	62	1 - 2	naked eye=lb
23		-	-	-	-	-	-	-	-	-		M
24		-	-	-	-	-	-	-	-	-		M
25	1:48	5	55	3	30	8	95	165	3	19	2 - 3	
26	3:50	5	30	2	31	7	61	131	3	33	2	
27		-	-	-	-	-	-	-	-	-		C
28		-	-	-	-	-	-	-	-	-		C
29	2:41	4	10	4	24	8	34	114	5	15	2	
30	4:10	4	10	3	25	7	35	105	1	2	2	
31		-	-	-	-	-	-	-	-	-		R
Sum		2331		1317		3648			1195			
Mean		111.0		62.7		173.7			55.9			

Days 21

8cm Refractor X57 Projection 15cm

POLAR FACULAE (Days 19)

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

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1909 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	3h39m	5	15	3	41	8	56	136	0	0	2 - 3	naked eye=lc
2	2:40	5	10	4	52	9	62	152	2	2	4	naked eye=lc
3		-	-	-	-	-	-	-	-	-		C
4	2:53	2	3	4	68	6	71	131	3	60	2	naked eye=lb
5	3:46	2	7	5	65	7	72	142	2	59	2	naked eye=lb
6	4:00	4	16	5	49	9	65	155	5	57	2	naked eye=lb
7	2:15	7	26	5	61	12	87	207	5	58	3 - 4	naked eye=lc
8		-	-	-	-	-	-	-	-	-		R
9	4:40	6	32	6	38	12	70	190	4	23	2	
10		-	-	-	-	-	-	-	-	-		C
11		-	-	-	-	-	-	-	-	-		M
12	4:00	3	20	4	15	7	35	105	1	6	2	
13	3:45	5	25	2	12	7	37	107	2	7	3	
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		M
17	2:45	5	46	3	44	8	90	170	4	57	2	naked eye=lc
18	2:41	4	43	3	51	7	94	164	3	62	3	naked eye=lc
19	2:51	5	49	3	55	8	104	184	2	33	3	
20	2:46	6	61	3	34	9	95	185	2	45	2 - 3	
21	2:34	5	67	5	42	10	109	209	4	51	3	
22	1:44	5	43	7	40	12	83	203	5	25	2	
23		-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-		C-2
25	2:27	4	17	4	35	8	52	132	4	35	2	naked eye=lc
26		-	-	-	-	-	-	-	-	-		C
27	5:00	2	8	5	68	7	76	146	1	22	2	
28	2:19	2	12	4	56	6	68	128	1	9	2	
29	3:50	3	10	3	51	6	61	121	3	12	2	
30	1:42	4	15	3	41	7	56	126	2	26	1 - 2	naked eye=lc
Sum		1365		1728		3093			1199			
Mean		68.3		86.4		154.7			69.0			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 19)

N	S
0.00	0.00
0.00	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1989 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total		10g+f R.	Cent.		Seeing 5-1	Remarks
		g.	f	g.	f	g.	f		g.	f		
1		-	-	-	-	-	-	-	-	-		R
2	3h00m	4	30	2	19	6	49	103	2	19	3	naked eye=lc
3	2:00	2	29	2	24	4	53	93	1	21	1-2	naked eye=lb
4	4:23	2	35	3	39	5	74	124	2	14	3-4	naked eye=lb
5		-	-	-	-	-	-	-	-	-		N
6		-	-	-	-	-	-	-	-	-		C
7		-	-	-	-	-	-	-	-	-		C
8		-	-	-	-	-	-	-	-	-		M
9		-	-	-	-	-	-	-	-	-		M
10		-	-	-	-	-	-	-	-	-		M
11		-	-	-	-	-	-	-	-	-		R
12		-	-	-	-	-	-	-	-	-		R
13		-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		M
16		-	-	-	-	-	-	-	-	-		M
17		-	-	-	-	-	-	-	-	-		R
18		-	-	-	-	-	-	-	-	-		C
19		-	-	-	-	-	-	-	-	-		C
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		N
22		-	-	-	-	-	-	-	-	-		C
23		-	-	-	-	-	-	-	-	-		R
24	2:38	6	51	9	93	15	144	294	3	69	4-5	naked eye=lc
25		-	-	-	-	-	-	-	-	-		C-R
26		-	-	-	-	-	-	-	-	-		R
27		-	-	-	-	-	-	-	-	-		N
28	-1:00	4	19	8	63	12	82	202	3	15	2	
29		-	-	-	-	-	-	-	-	-		N
30	0:37	5	21	7	46	12	67	197	9	54	3	
31	1:00	5	25	5	52	10	77	177	7	63	3	
Sum			490		695			1195		514		
Mean			70.0		99.3			169.3		73.4		

Days 7

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N S

0.00 0.00

0.00

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1989 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	0h14m	5	25	7	57	12	82	202	4	49	3	
2		-	-	-	-	-	-	-	-	-	-	M
3	1:24	4	20	9	79	13	99	229	3	16	3	
4	0:51	5	24	7	75	12	99	219	3	17	4	
5		-	-	-	-	-	-	-	-	-	-	C
6		-	-	-	-	-	-	-	-	-	-	M
7	3:02	6	11	5	72	11	83	193	3	29	3 - 4	
8	2:50	2	9	5	55	7	64	134	3	38	1 - 2	
9		-	-	-	-	-	-	-	-	-	-	R
10		-	-	-	-	-	-	-	-	-	-	R
11		-	-	-	-	-	-	-	-	-	-	C
12	1:12	7	115	7	110	14	225	365	5	40	4	naked eye=lb
13		-	-	-	-	-	-	-	-	-	-	M
14	0:25	6	124	7	97	13	211	341	4	130	3	naked eye=la
15		-	-	-	-	-	-	-	-	-	-	C
16		-	-	-	-	-	-	-	-	-	-	R
17		-	-	-	-	-	-	-	-	-	-	M
18		-	-	-	-	-	-	-	-	-	-	C
19		-	-	-	-	-	-	-	-	-	-	R
20	1:38	6	74	11	60	17	134	304	5	32	3 - 4	
21	2:10	7	45	7	48	14	93	233	4	23	3 - 4	
22		-	-	-	-	-	-	-	-	-	-	C
23		-	-	-	-	-	-	-	-	-	-	R
24		-	-	-	-	-	-	-	-	-	-	R
25	1:40	8	63	5	71	13	134	264	4	72	2 - 3	naked eye=lc
26	1:42	9	78	5	79	14	157	297	8	112	3	naked eye=lc
27		-	-	-	-	-	-	-	-	-	-	C
28		-	-	-	-	-	-	-	-	-	-	R
29		-	-	-	-	-	-	-	-	-	-	M
30		-	-	-	-	-	-	-	-	-	-	M
Sum		1238		1543		2781			1099			
Mean		112.5		140.3		252.8			91.7			

Days 11

POLAR FACULAE (Days 10)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
<u>0.10</u>	<u>0.00</u>
<u>0.10</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1989 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	0h45m	5	40	4	44	9	84	174	1	10	3	
2		-	-	-	-	-	-	-	-	-	-	
3		-	-	-	-	-	-	-	-	-	-	M
4	1:30	7	48	4	27	11	75	195	4	6	4-5	C
5	1:05	5	34	2	14	7	48	118	2	12	3	
6	3:07	7	42	2	22	9	64	154	5	33	4-5	
7	1:45	6	43	4	33	10	76	196 ¹⁷⁶	5	57	3	
8	2:00	5	45	5	30	10	75	175	4	40		
9		-	-	-	-	-	-	-	-	-	-	
10		-	-	-	-	-	-	-	-	-	-	R
11	1:20	6	15	3	20	9	35	125	3	21	1-2	R-C
12		-	-	-	-	-	-	-	-	-	-	
13		-	-	-	-	-	-	-	-	-	-	R-C
14	2:31	6	34	3	14	9	48	138	3	12	3	R
15	1:42	3	30	4	8	7	38	108	1	4	4	
16		-	-	-	-	-	-	-	-	-	-	
17	2:10	3	38	4	17	7	55	125	3	37	2-3	R
18		-	-	-	-	-	-	-	-	-	-	
19	0:24	5	35	4	29	9	64	154	2	16	2-3	C
20	1:34	6	38	4	43	10	81	181	4	33	2-3	
21	0:55	6	56	3	51	9	107	197	3	47	3	
22		-	-	-	-	-	-	-	-	-	-	
23	1:30	8	50	6	90	14	140	280	8	90	3	C-R
24	1:32	6	41	5	78	11	119	229	8	48	3-4	
25	1:02	4	28	4	57	8	85	155	2	14	1	
26		-	-	-	-	-	-	-	-	-	-	
27		-	-	-	-	-	-	-	-	-	-	M
28	1:02	1	3	5	26	6	29	89	2	13	2-3	M
29		-	-	-	-	-	-	-	-	-	-	
30		-	-	-	-	-	-	-	-	-	-	C
31		-	-	-	-	-	-	-	-	-	-	C
Sum		1510		1263			2773		1073			
Mean		88.8		74.3			163.1		64.3			

Days 17

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 15)

N	S
<u>0.33</u>	<u>0.00</u>
	<u>0.33</u>

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1989 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		-	-	-	-	-	-	-	-	-		C
2		-	-	-	-	-	-	-	-	-		C
3	2h10m	5	23	9	58	14	81	221	7	37	3	naked eye=lb
4	3:57	6	22	8	84	14	105	245	5	39	3 - 4	naked eye=lb
5	0:34	6	25	10	81	15	107	267	5	25	3	naked eye=lc
6		-	-	-	-	-	-	-	-	-		C-R
7		-	-	-	-	-	-	-	-	-		M
8	1:40	5	15	9	119	14	134	274	4	37	3	naked eye=la
9	0:53	7	19	9	105	15	125	285	5	55	2 - 3	naked eye=la
10	2:00	5	17	8	78	13	95	225	3	51	1 - 2	naked eye=la
11		-	-	-	-	-	-	-	-	-		M
12	1:01	6	35	6	56	12	102	222	3	20	2	naked eye=lb
13	1:10	9	49	6	59	15	108	258	3	20	2 - 3	naked eye=lc
14		-	-	-	-	-	-	-	-	-		C
15		-	-	-	-	-	-	-	-	-		C-R
16		-	-	-	-	-	-	-	-	-		C
17	1:19	11	131	2	8	13	139	269	6	105	3 - 4	naked eye=la
18	2:10	9	132	2	3	11	135	245	5	114	4 - 5	naked eye=la
19	2:12	10	136	3	8	13	144	274	7	126	3 - 4	naked eye=la
20	1:27	8	113	3	11	11	124	234	7	99	3	naked eye=lc
21		-	-	-	-	-	-	-	-	-		M
22	1:07	9	68	4	14	13	82	212	3	9	2 - 3	
23	2:23	9	34	4	14	13	48	179	3	10	3	
24	3:40	9	24	4	15	13	39	169	3	11	2	
25	2:00	4	15	6	18	10	33	133	4	12	3 - 4	
26		-	-	-	-	-	-	-	-	-		M
27		-	-	-	-	-	-	-	-	-		M
28		-	-	-	-	-	-	-	-	-		M
29	2:30	4	10	3	16	7	26	96	3	8	3	
30		-	-	-	-	-	-	-	-	-		M
31	1:00	3	11	3	59	6	70	130	2	9	3	

Sum 2131 1907 3938 1567

Mean 119.4 100.4 218.8 87.1

Days 18

POLAR FACULAE (Days 16)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.75	0.00
0.75	

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1939 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N			S			Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	s	f	g	f	R	g	f	g	f		
1		-	-	-	-	-	-	-	-	-	-	-		M
2		-	-	-	-	-	-	-	-	-	-	-		C-R
3		-	-	-	-	-	-	-	-	-	-	-		R
4		-	-	-	-	-	-	-	-	-	-	-		M
5	3h25m	5	45	2	104	7	149	219	3	102	2		naked eye=la,lb	
6		-	-	-	-	-	-	-	-	-	-	-		C
7		-	-	-	-	-	-	-	-	-	-	-		C
8	2:10	11	103	1	72	12	190	300	4	44	2			M
9		-	-	-	-	-	-	-	-	-	-	-		M
10	2:05	11	172	3	66	14	233	373	5	100	2	-	3naked eye=lb	
11	2:11	12	175	4	40	16	215	375	6	120	3		naked eye=lc	
12	3:37	12	148	5	25	17	173	343	3	110	3		naked eye=lc	
13		-	-	-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-	-	-		R
15	0:50	9	75	1	7	10	82	182	5	45	1	- 2		C
16		-	-	-	-	-	-	-	-	-	-	-		C
17		-	-	-	-	-	-	-	-	-	-	-		C
18	2:40	6	51	3	25	9	76	166	1	14	1	- 2		R
19		-	-	-	-	-	-	-	-	-	-	-		R
20	0:20	5	26	6	54	11	80	190	3	12	4		naked eye=lb	
21	1:15	2	10	3	51	5	61	111	1	4	2	-	3naked eye=lb	
22		-	-	-	-	-	-	-	-	-	-	-		C
23		-	-	-	-	-	-	-	-	-	-	-		C
24	- 17	2	4	3	40	5	44	94	3	10	3		naked eye=lb	
25	2:34	0	0	4	39	4	39	79	1	6	2		naked eye=lc	
26	2:10	0	0	4	45	4	45	85	1	1	3	- 4		
27		-	-	-	-	-	-	-	-	-	-	-		C
28		-	-	-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-	-	-		C
30		-	-	-	-	-	-	-	-	-	-	-		M
Sum		1564			958			2522			978			
Mean		130.3			79.8			210.2			91.5			

Days 12

3cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 3)

<u>N</u>	<u>S</u>
0.50	2.00
	<u>0.50</u>

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1969 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		-	-	-	-	-	-	-	-	-		M
2		-	-	-	-	-	-	-	-	-		C
3		-	-	-	-	-	-	-	-	-		C
4	1h41m	9	47	7	33	16	80	240	8	42	3	
5	1:10	10	51	7	40	17	91	261	6	40	3 - 4	
6		-	-	-	-	-	-	-	-	-		C
7		-	-	-	-	-	-	-	-	-		R
8		-	-	-	-	-	-	-	-	-		C
9	2:21	9	62	5	33	14	95	235	7	65	3 - 4	
10	3:00	10	51	4	11	14	62	202	7	44	2	
11		-	-	-	-	-	-	-	-	-		R
12		-	-	-	-	-	-	-	-	-		C
13	1:42	9	50	3	17	12	67	197	4	32	4	
14	1:02	7	45	3	35	10	90	190	4	39	3 - 4	
15	0:14	6	56	6	49	12	105	225	7	51	4 - 5	
16		-	-	-	-	-	-	-	-	-		C
17	1:23	6	46	7	73	13	119	249	4	40	3	naked eye=lc
18	2:23	4	21	7	91	11	112	222	4	34	3	naked eye=lb
19		-	-	-	-	-	-	-	-	-		R
20	1:33	1	3	7	96	9	99	169	2	39	3 - 4	naked eye=la
21	1:47	2	4	8	90	10	94	194	3	30	3	naked eye=la
22	0:06	2	2	9	73	11	75	195	4	14	2	naked eye=lb
23	2:16	2	8	7	81	9	89	179	3	9	3	naked eye=lc
24	1:42	2	13	7	82	9	95	195	2	13	3	
25	2:02	2	14	5	76	7	90	160	4	27	3	
26	1:42	2	19	4	33	6	52	112	3	31	3	
27	1:45	3	28	4	19	7	47	117	4	30	3	
28	2:16	4	29	5	15	9	43	133	5	14	3	
29	1:52	6	38	7	18	13	56	196	6	29	2 - 3	
30	3:25	10	60	3	16	13	76	206	3	35	2 - 3	
31		-	-	-	-	-	-	-	-	-		M
Sum		1706		2121		3927			1556			
Mean		85.3		106.1		191.4			77.9			

Days 20

3cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 17)

<u>N</u>	<u>S</u>
0.94	0.06
<u>1.00</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1989 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 17g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1		-	-	-	-	-	-	-	-	-		C-R
2		-	-	-	-	-	-	-	-	-		M
3	2h09m	12	110	4	12	16	122	292	7	75	3	
4		-	-	-	-	-	-	-	-	-		M
5	2:30	10	131	6	16	16	147	307	9	96	2	
6	2:20	10	122	4	17	14	139	279	9	75	2	
7		-	-	-	-	-	-	-	-	-		
8		-	-	-	-	-	-	-	-	-		R
9		-	-	-	-	-	-	-	-	-		C
10	2:27	10	125	4	17	14	142	292	6	96	2 - 3	R
11	2:25	9	127	4	17	12	144	264	6	99	3	naked eye=lb
12		-	-	-	-	-	-	-	-	-		M
13		-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-		C
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		C
17		-	-	-	-	-	-	-	-	-		C
18		-	-	-	-	-	-	-	-	-		C
19	2:50	4	29	3	49	7	79	148	0	0	2	
20	2:30	5	45	3	54	8	99	179	2	23	2 - 3	
21	2:31	5	45	5	47	10	92	192	5	52	2 - 3	naked eye=lc
22	2:22	6	58	5	33	11	91	201	5	62	3	naked eye=lc
23		-	-	-	-	-	-	-	-	-		C
24	2:39	8	72	6	23	14	95	235	6	59	5	naked eye=lc
25	2:27	10	34	6	30	16	114	274	9	49	5	naked eye=2c
26	2:37	5	63	7	56	12	119	239	6	78	4	naked eye=lc
27		-	-	-	-	-	-	-	-	-		C
28		-	-	-	-	-	-	-	-	-		R
29		-	-	-	-	-	-	-	-	-		M
30	2:33	8	61	5	49	14	110	250	3	16	2 - 3	naked eye=lb
Sum		2082		1050		3132			1499			
Mean		167.2		87.8		249.9			114.6			

Days 13

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 12)

N	S
<u>0.67</u>	<u>0.17</u>
<u>0.93</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1989 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	2h32	9	67	7	46	16	113	273	5	65	3	naked eye=lc
2	2:34	9	47	5	30	14	77	217	6	35	3	naked eye=lc
3		-	-	-	-	-	-	-	-	-	-	M
4	2:37	8	56	4	27	12	93	213	7	39	2 - 3	
5	2:38	8	89	5	24	13	112	242	6	34	2	
6	3:25	8	79	7	31	15	110	260	6	49	2	
7		-	-	-	-	-	-	-	-	-	-	
8		-	-	-	-	-	-	-	-	-	-	C
9		-	-	-	-	-	-	-	-	-	-	C
10		-	-	-	-	-	-	-	-	-	-	M
11	3:17	5	40	4	10	9	50	140	4	23	2	
12		-	-	-	-	-	-	-	-	-	-	M
13	3:14	7	27	3	15	10	42	142	5	19	2	
14		-	-	-	-	-	-	-	-	-	-	C
15		-	-	-	-	-	-	-	-	-	-	M
16	3:16	4	28	5	13	9	41	131	2	6	2 - 3	
17		-	-	-	-	-	-	-	-	-	-	M
18		-	-	-	-	-	-	-	-	-	-	M
19		-	-	-	-	-	-	-	-	-	-	M
20	2:58	5	39	3	24	8	63	143	4	31	2 - 3	
21		-	-	-	-	-	-	-	-	-	-	M
22		-	-	-	-	-	-	-	-	-	-	C
23	3:15	6	42	13	53	19	100	290	6	26	3	
24		-	-	-	-	-	-	-	-	-	-	M
25		-	-	-	-	-	-	-	-	-	-	M
26		-	-	-	-	-	-	-	-	-	-	M
27		-	-	-	-	-	-	-	-	-	-	M
28		-	-	-	-	-	-	-	-	-	-	M
29		-	-	-	-	-	-	-	-	-	-	M
30		-	-	-	-	-	-	-	-	-	-	M
31		-	-	-	-	-	-	-	-	-	-	M
Sum		1388		912		2300			927			
Mean		126.2		82.9		209.1			84.3			

Days 11

POLAR FACULAE

N

S

8cm Refractor X67 Projection 15cm

0.00

0.00

0.00

Date	Time U. T.	N		S		Total 10g+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
5	2h38	9	85	5	24	14	109	249	6	31	3	naked eye=lc