

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1999 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	1h24m	6	82	2	13	8	95	175	2	13	3	naked eye=1c
2	3:12	4	66	1	7	5	73	123	1	2	2 - 3	
3	2:36	3	59	1	3	4	62	102	1	2	2 - 3	
4	1:30	3	42	2	5	5	47	97	1	15	2	
5		-	-	-	-	-	-	-	-	-		M
6		-	-	-	-	-	-	-	-	-		M
7	3:20	2	13	2	6	4	19	59	2	7	1	
8	3:33	1	7	3	13	4	20	60	1	6	2	
9	1:45	1	4	3	17	4	21	61	2	14	2	
10		-	-	-	-	-	-	-	-	-		M
11	1:46	2	4	3	7	5	11	61	2	4	2	
12	2:39	1	2	1	2	2	4	24	1	2	2	
13	1:36	1	2	2	24	3	26	56	1	10	2 - 3	
14	2:10	2	11	3	33	5	44	94	2	9	3	
15		-	-	-	-	-	-	-	-	-		S
16	2:56	5	57	1	43	6	100	160	3	13	3 - 4	
17	3:03	3	62	1	47	4	109	149	3	34	2	
18	4:06	3	71	2	45	5	116	166	3	90	3	
19		-	-	-	-	-	-	-	-	-		C-S
20	3:10	4	67	2	41	6	108	168	3	93	2	naked eye=1c
21	4:20	4	53	2	46	6	99	159	2	11	3	
22	3:12	5	59	3	43	8	102	182	2	18	2	
23	2:25	3	49	2	47	5	96	146	2	18	2	
24		-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-		C
26	1:48	2	9	1	2	3	11	41	1	2	3	
27	3:02	2	5	1	5	3	10	40	1	2	2	
28	2:02	6	20	0	0	6	20	80	2	11	3	
29	2:16	3	7	0	0	3	7	37	0	0	2	
30	1:57	2	21	0	0	2	21	41	0	0	2	
31	4:48	3	16	0	0	3	16	46	0	0	3	
Sum		1498		829		2327			756			
Mean		62.4		34.5		97.0			31.5			

Days 24

POLAR FACULAE(Days 22)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.09	0.41

0.50

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1999 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		-	-	-	-	-	-	-	-	-		M
2		-	-	-	-	-	-	-	-	-		M
3	4h48m	0	0	2	16	2	16	36	1	5	2	
4	1:25	0	0	1	3	1	3	23	0	0	2	
5	2:56	0	0	1	6	1	6	16	1	6	2	
6	1:50	0	0	1	8	1	8	18	1	8	3	
7		-	-	-	-	-	-	-	-	-		M
8	2:12	1	5	3	7	4	12	52	2	6	2 - 3	
9	3:56	2	19	2	5	4	24	64	0	0	4	
10	3:00	3	29	2	11	5	40	90	0	0	1 - 2	
11		-	-	-	-	-	-	-	-	-		S
12	2:28	5	71	4	29	9	100	190	0	0	3	naked eye=1b
13	2:44	5	93	5	30	10	123	223	4	65	2 - 3	naked eye=1c,1b
14	3:35	5	79	3	45	8	124	204	6	85	3	naked eye=1c,1b
15	2:49	5	85	4	65	9	150	240	5	116	3	naked eye=1c,1b
16	2:10	6	76	5	55	11	131	241	6	94	3	naked eye=1b
17	1:55	5	63	5	42	10	105	205	5	49	2 - 3	naked eye=1b
18		-	-	-	-	-	-	-	-	-		R
19		-	-	-	-	-	-	-	-	-		M
20	1:36	6	31	2	19	8	50	130	0	0	2	
21	1:30	5	27	3	11	8	38	118	3	10	2 - 3	
22	2:49	4	22	3	6	7	28	98	4	21	1 - 2	
23	2:42	3	10	2	7	5	17	67	1	3	1 - 2	
24		-	-	-	-	-	-	-	-	-		C-R
25	2:03	3	13	1	8	4	21	61	0	0	2 - 3	
26	1:35	3	23	1	7	4	30	70	1	2	2	
27	3:49	4	25	1	4	5	29	79	1	4	2 - 3	
28	1:14	4	38	1	3	5	41	91	1	3	2	
Sum		1399		917		2316			895			
Mean		66.6		43.7		110.3			42.6			

Days 21

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 21)

<u>N</u>	<u>S</u>
0.10	0.57
.0.67	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1999 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	1h51m	4	57	3	6	7	63	133	1	1	2 - 3	
2	3:21	3	54	3	8	6	62	122	2	11	3	
3	1:57	4	71	4	16	8	87	167	3	40	3	
4	2:02	3	62	5	21	8	83	163	2	2	3	
5		-	-	-	-	-	-	-	-	-	-	M
6	1:02	3	36	5	26	8	62	142	3	22	3	
7		-	-	-	-	-	-	-	-	-	-	R
8	2:04	1	4	3	21	4	25	65	3	21	3	
9		-	-	-	-	-	-	-	-	-	-	R
10	4:20	2	16	3	29	5	45	95	0	0	2	
11		-	-	-	-	-	-	-	-	-	-	C
12	5:40	3	43	4	20	7	63	133	1	3	1 - 2	
13	3:29	3	64	3	14	6	78	138	3	27	3	
14	0:30	3	76	3	14	6	90	150	2	47	3	
15		-	-	-	-	-	-	-	-	-	-	R
16	2:55	4	80	2	11	6	91	151	4	43	1 - 2	
17	3:05	4	84	3	17	7	101	171	3	42	3	
18	2:05	4	52	3	28	7	80	150	3	41	2 - 3	
19		-	-	-	-	-	-	-	-	-	-	R-C
20		-	-	-	-	-	-	-	-	-	-	S
21		-	-	-	-	-	-	-	-	-	-	C
22		-	-	-	-	-	-	-	-	-	-	M
23	1:34	2	4	1	4	3	8	38	0	0	3	
24	1:37	3	8	2	4	5	12	62	0	0	3	
25	3:40	3	10	0	0	3	10	40	0	0	1 - 2	
26	1:50	3	7	0	0	3	7	37	0	0	2	
27		-	-	-	-	-	-	-	-	-	-	R
28	1:10	3	7	0	0	3	7	37	1	2	2	
29	2:24	3	9	1	2	4	11	51	1	2	2	
30		-	-	-	-	-	-	-	-	-	-	C
31	3:47	3	9	3	10	6	19	79	1	2	4	
Sum		1363		761		2124			636			
Mean		68.2		38.1		106.2			31.8			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 19)

<u>N</u>	<u>S</u>
0.00	0.74
<u>0.74</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1999 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	3h00m	4	8	2	6	6	14	74	0	0	3	
2		-	-	-	-	-	-	-	-	-		R
3	4:05	3	5	2	19	5	24	74	2	16	2 - 3	
4	2:00	2	10	2	35	4	45	85	2	35	2	
5		-	-	-	-	-	-	-	-	-		C
6		-	-	-	-	-	-	-	-	-		M
7	3:14	2	38	4	23	6	61	121	1	19	2	
8	1:39	2	49	3	17	5	66	116	1	13	2	
9	4:10	3	52	5	21	8	73	153	4	42	4	
10		-	-	-	-	-	-	-	-	-		C-R
11		-	-	-	-	-	-	-	-	-		C
12	4:10	1	10	4	36	5	46	96	4	32	2 - 3	
13	2:13	2	9	5	44	7	53	123	5	44	1 - 2	
14	1:32	1	4	6	40	7	44	114	4	34	2 - 3	
15	3:29	1	1	6	36	7	37	107	4	21	4	
16	2:23	1	1	6	47	7	48	118	2	21	3	
17	3:10	2	8	5	37	7	45	115	1	3	2 - 3	
18		-	-	-	-	-	-	-	-	-		R
19		-	-	-	-	-	-	-	-	-		R
20	2:33	3	16	2	27	5	43	93	2	15	4	
21	2:11	2	6	2	20	4	26	66	3	20	3	
22	3:00	1	8	2	20	3	28	58	2	20	5	
23		-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-		R-C
25	4:30	3	23	1	8	4	31	71	1	8	3 - 4	
26	4:12	3	22	1	3	4	25	65	0	0	4	
27	3:59	3	38	1	3	4	41	81	1	4	4 - 5	
28	3:40	3	41	1	2	4	43	83	2	31	2	
29	4:28	4	50	1	2	5	52	102	2	39	5	
30	2:50	5	55	0	0	5	55	105	2	34	4	
Sum		964		1056		2020			901			
Mean		45.9		50.3		96.2			42.9			

Days 21

POLAR FACULAE (Days 17)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.29	0.71
1.00	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1999 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	4h04m	6	56	1	1	7	57	127	0	0	4	
2	5:46	7	48	2	5	9	53	143	2	8	4	
3	3:20	5	43	1	4	6	47	107	2	8	2	
4		-	-	-	-	-	-	-	-	-		R
5	3:21	5	34	3	13	8	47	127	4	27	3 - 4	
6	3:26	6	34	3	8	9	42	132	2	13	3	
7	3:16	8	61	5	15	13	76	206	3	18	5	
8	4:40	9	57	4	30	13	87	217	1	6	3	
9	2:50	8	56	4	33	12	89	209	4	21	2	
10		-	-	-	-	-	-	-	-	-		C
11	3:15	6	63	5	49	11	112	222	5	55	3	
12	3:24	3	50	5	53	8	103	183	6	78	3	
13	3:13	4	57	5	35	9	92	182	6	86	5	
14	4:22	5	52	4	29	9	81	171	3	37	3	
15		-	-	-	-	-	-	-	-	-		M
16	5:20	4	38	3	27	7	65	135	2	6	2 - 3	
17	3:06	5	40	5	30	10	70	170	4	8	4	
18	5:20	4	28	4	36	8	64	144	2	25	2	
19		-	-	-	-	-	-	-	-	-		C
20	2:44	2	15	5	50	7	65	135	2	44	3	
21	3:14	3	35	4	49	7	84	154	2	34	3	
22	2:58	3	19	4	60	7	79	149	1	17	3	
23	0:41	2	8	4	51	6	59	119	1	15	3	
24		-	-	-	-	-	-	-	-	-		R
25	3:07	6	24	3	34	9	58	148	2	29	3 - 4	
26	4:40	6	27	2	28	8	55	135	1	20	2	
27		-	-	-	-	-	-	-	-	-		M
28		-	-	-	-	-	-	-	-	-		C
29	3:20	9	53	2	13	11	66	176	4	32	1 - 2	
30		-	-	-	-	-	-	-	-	-		M
31	4:10	5	52	4	25	9	77	167	4	20	2	
Sum		2160		1498		3658			1237			
Mean		93.9		65.1		159.0			53.8			

Days 23

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 19)

<u>N</u>	<u>S</u>
0.11	0.21

0.32

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1999 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	2h41m	6	76	6	45	12	121	241	6	45	4	naked eye=1c
2	2:15	5	47	5	51	10	98	198	5	69	3	naked eye=1c
3		-	-	-	-	-	-	-	-	-		C
4	3:02	6	53	4	48	10	101	201	4	76	2	
5	3:29	8	46	6	50	14	96	236	4	41	4	
6	2:38	7	49	7	47	14	96	236	2	5	3	
7		-	-	-	-	-	-	-	-	-		R
8	2:40	6	40	5	41	11	81	191	5	22	2	
9	3:35	7	89	7	33	14	122	262	8	97	4	
10	2:26	6	92	6	24	12	116	236	8	84	3	
11	2:49	7	100	6	26	13	126	256	8	82	4	
12	1:48	6	99	5	35	11	134	244	4	54	3	
13	2:28	6	88	5	45	11	133	243	1	5	2 - 3	
14	2:29	6	75	5	44	11	119	229	2	35	2 - 3	
15	1:50	7	58	5	40	12	98	218	3	47	2	
16	1:50	5	37	4	28	9	65	155	4	26	1 - 2	
17		-	-	-	-	-	-	-	-	-		R
18		-	-	-	-	-	-	-	-	-		R
19		-	-	-	-	-	-	-	-	-		R
20		-	-	-	-	-	-	-	-	-		M
21	4:06	7	35	1	2	8	37	117	0	0	2	
22		-	-	-	-	-	-	-	-	-		M
23	3:30	12	52	2	12	14	64	204	3	7	2	
24		-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-		R
26	4:20	10	94	3	30	13	124	254	8	73	1 - 2	
27		-	-	-	-	-	-	-	-	-		R
28	4:30	7	94	5	68	12	162	282	9	114	2	
29		-	-	-	-	-	-	-	-	-		C
30		-	-	-	-	-	-	-	-	-		R
Sum		2464		1539		4003			1722			
Mean		136.9		85.5		222.4			95.7			

Days 18

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 14)

N	S
0.07	0.00
0.07	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1999 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	2h02m	7	40	3	77	10	117	217	5	65	3	
2		-	-	-	-	-	-	-	-	-		M
3		-	-	-	-	-	-	-	-	-		R
4	2:30	7	46	5	60	12	106	226	0	0	3	
5	3:18	8	53	4	51	12	104	224	2	21	4 - 5	
6	1:49	7	37	5	39	12	76	196	4	24	3	
7		-	-	-	-	-	-	-	-	-		M
8	2:24	3	16	6	48	9	64	154	5	31	2 - 3	
9	1:27	5	28	7	44	12	72	192	2	16	4 - 5	
10	1:51	6	43	5	33	11	76	186	2	7	4	
11		-	-	-	-	-	-	-	-	-		R
12	2:00	4	36	5	33	9	69	159	3	25	2	
13		-	-	-	-	-	-	-	-	-		R
14	3:03	3	29	4	32	7	61	131	3	47	4	
15	3:20	3	30	3	22	6	52	112	2	32	2 - 3	
16		-	-	-	-	-	-	-	-	-		M
17		-	-	-	-	-	-	-	-	-		M
18		-	-	-	-	-	-	-	-	-		R
19		-	-	-	-	-	-	-	-	-		M
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		C
22		-	-	-	-	-	-	-	-	-		M
23	0:40	5	76	2	8	7	84	154	2	50	2	
24	3:48	6	73	3	13	9	86	176	4	57	2 - 3	naked eye=1c
25	3:46	5	80	4	27	9	107	197	5	68	3	naked eye=1c
26	5:15	5	58	4	31	9	89	179	3	16	3	
27	2:40	3	47	4	42	7	89	159	2	7	3	
28		-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-		M
30	2:02	7	61	5	85	12	146	266	5	82	4	
31	2:11	8	58	5	72	13	130	260	6	38	2 - 3	naked eye=1c
Sum		1731		1457		3188			1136			
Mean		101.8		85.7		187.5			66.8			

Days 17

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 14)

<u>N</u>	<u>S</u>
0.36	0.07

0.43

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1999 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	2h29m	7	82	4	68	11	150	260	5	72	2 - 3	naked eye=1b
2	3:24	6	87	5	84	11	171	281	3	72	3	naked eye=1a
3	1:44	4	86	5	63	9	149	239	3	84	3	naked eye=1b
4	2:45	5	86	5	66	10	152	252	4	85	2 - 3	naked eye=1c
5	3:20	5	73	6	40	11	113	223	5	27	2 - 3	
6	4:30	4	57	4	21	8	78	158	3	17	2	
7	2:34	4	52	3	24	7	76	146	2	6	2 - 3	
8	1:51	7	49	3	37	10	86	186	1	4	5	
9	2:34	5	14	3	39	8	53	133	1	2	3	
10	3:17	1	3	3	40	4	43	83	1	24	2	
11	4:25	0	0	2	48	2	48	68	1	44	2 - 3	
12		-	-	-	-	-	-	-	-	-		C
13	4:00	1	4	2	30	3	34	64	1	21	1 - 2	
14		-	-	-	-	-	-	-	-	-		R
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		M
17	2:13	1	8	3	8	4	16	56	1	2	2 - 3	
18	3:29	2	18	1	5	3	23	53	2	18	4 - 5	naked eye=1c
19	7:10	2	24	1	2	3	26	56	2	24	1 - 2	
20	5:30	2	18	2	8	4	26	66	2	18	1 - 2	
21	2:34	2	17	2	18	4	35	75	1	12	3	
22	5:10	1	19	2	44	3	63	93	1	11	2 - 3	
23	3:15	1	19	2	60	3	79	109	0	0	3	
24	3:21	1	11	2	64	3	75	105	0	0	2 - 3	naked eye=1c
25	2:34	6	23	2	69	8	92	172	2	7	3	naked eye=1c
26	2:40	6	16	3	79	9	95	185	2	30	2	naked eye=1c
27	6:58	4	23	3	84	7	107	177	1	55	2	
28	4:40	5	40	3	93	8	133	213	2	31	1 - 2	
29	2:03	5	71	4	98	9	169	259	4	67	2 - 3	
30	3:54	5	63	4	83	9	146	236	4	61	3	
31	2:30	4	67	3	43	7	110	180	3	65	2 - 3	
Sum		1990		2138		4128			1429			
Mean		73.7		79.2		152.9			52.9			

Days 27

POLAR FACULAE (Days 18)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.39	0.00
<u>0.39</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1999 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	2h20m	4	52	2	23	6	75	135	4	23	2	
2	4:20	5	35	2	9	7	44	114	4	16	2	
3		-	-	-	-	-	-	-	-	-		
4		-	-	-	-	-	-	-	-	-		M
5	4:33	5	30	1	2	6	32	92	2	19	3	C
6	6:10	5	34	0	0	5	34	84	2	14	3	
7		-	-	-	-	-	-	-	-	-		C
8	3:54	5	23	3	23	8	46	126	1	1	3	
9	3:10	4	22	3	22	7	44	114	1	3	4 - 5	
10	3:37	4	22	2	21	6	43	103	1	7	2 - 3	
11	5:39	4	31	3	25	7	56	126	2	21	2	
12		-	-	-	-	-	-	-	-	-		M
13	4:00	5	60	1	32	6	92	152	4	54	3	
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		R
16		-	-	-	-	-	-	-	-	-		C
17		-	-	-	-	-	-	-	-	-		M
18	3:10	5	61	3	12	8	73	153	2	37	3	
19	2:34	6	51	2	11	8	62	142	2	35	5	
20		-	-	-	-	-	-	-	-	-		C
21		-	-	-	-	-	-	-	-	-		R
22		-	-	-	-	-	-	-	-	-		R
23	2:13	3	9	3	16	6	25	85	2	6	3	
24		-	-	-	-	-	-	-	-	-		C
25	3:30	2	4	2	12	4	16	56	2	4	2 - 3	
26	4:36	2	4	2	7	4	11	51	3	9	2 - 3	
27	4:16	2	6	1	2	3	8	38	1	4	3	
28	4:30	3	7	2	4	5	11	61	2	4	2	
29	2:56	4	12	3	7	7	19	89	1	5	3 - 4	
30	3:38	5	16	3	7	8	23	103	2	4	4	
Sum		1209		615		1824			646			
Mean		67.2		34.2		101.3			35.9			

Days 18

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 17)

<u>N</u>	<u>S</u>
0.29	0.00
<u>0.29</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1999 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	4h05m	4	10	4	7	8	17	97	1	2	3 - 4	
3		-	-	-	-	-	-	-	-	-		R-C
4	3:12	3	19	4	22	7	41	111	1	2	3	
5	6:20	6	30	5	22	11	52	162	3	16	2	
6	6:50	6	48	5	28	11	76	186	4	30	2	
7		-	-	-	-	-	-	-	-	-		R-C
8		-	-	-	-	-	-	-	-	-		C
9	2:20	8	40	6	18	14	58	198	6	36	2 - 3	
10	4:51	9	45	5	11	14	56	196	4	17	3	
11	2:36	10	55	3	7	13	62	192	3	10	3	
12	3:28	11	93	3	5	14	98	238	1	6	5	
13		-	-	-	-	-	-	-	-	-		M
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		R
16	6:05	8	105	0	0	8	105	185	7	100	2	naked eye=1c
17	3:18	7	120	1	2	8	122	202	6	104	2 - 3	naked eye=1b
18	5:15	6	100	1	2	7	102	172	5	82	2	naked eye=1b
19		-	-	-	-	-	-	-	-	-		C
20	3:23	7	87	1	18	8	105	185	2	20	3	
21	3:24	5	47	2	26	7	73	143	2	22	2	
22		-	-	-	-	-	-	-	-	-		C
23	3:00	2	9	3	59	5	68	118	2	13	4	
24	4:21	2	15	3	77	5	92	142	2	25	3	
25	3:13	3	23	4	93	7	116	186	2	59	2	
26	3:41	4	36	5	131	9	167	257	4	97	3	naked eye=1c
27		-	-	-	-	-	-	-	-	-		R
28		-	-	-	-	-	-	-	-	-		M
29	3:15	3	56	6	74	9	130	220	5	59	2 - 3	
30	3:27	5	65	7	82	12	147	267	6	56	2 - 3	
31	6:00	5	50	6	53	11	103	213	7	62	2	
Sum		2193		1477		3670			1548			
Mean		109.7		73.9		183.5			77.4			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 17)

<u>N</u>	<u>S</u>
<u>0.12</u>	<u>0.00</u>
<u>0.12</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1999 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		-	-	-	-	-	-	-	-	-		R
2	3h29m	3	30	4	57	7	87	157	3	62	3	
3	3:05	4	27	3	35	7	62	132	5	52	2 - 3	
4	3:16	3	23	4	35	7	58	128	4	22	2 - 3	
5	2:54	5	29	4	44	9	73	163	3	18	2 - 3	
6	4:05	6	41	4	29	10	70	170	2	16	3	
7	3:37	9	70	2	18	11	88	198	3	10	3	
8		-	-	-	-	-	-	-	-	-		C
9		-	-	-	-	-	-	-	-	-		M
10	4:07	10	222	3	8	13	230	360	6	113	3	naked eye=1c
11	3:50	9	221	3	19	12	240	360	8	145	3	naked eye=1c
12		-	-	-	-	-	-	-	-	-		R
13	1:51	7	152	2	43	9	195	285	4	98	4 - 5	
14	3:22	7	116	3	57	10	173	273	2	73	3 - 4	
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		C
17	3:10	6	83	6	64	12	147	267	5	90	2 - 3	naked eye=1b
18	3:32	4	63	8	89	12	152	272	6	100	2	naked eye=1b
19	3:33	4	56	9	106	13	162	292	4	97	2 - 3	naked eye=1b
20	4:40	5	47	8	108	13	155	285	4	61	2 - 3	naked eye=1c
21	3:06	3	41	9	92	12	133	253	4	56	3	
22		-	-	-	-	-	-	-	-	-		M
23		-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-		R
25	3:40	1	2	7	86	8	88	168	3	33	2 - 3	
26		-	-	-	-	-	-	-	-	-		C
27	3:25	4	18	8	97	12	115	235	6	54	2 - 3	
28	4:12	3	10	6	88	9	98	188	3	43	2	
29	3:36	1	26	3	69	4	95	135	2	65	2 - 3	
30	4:10	2	31	2	42	4	73	113	3	37	2	
Sum			2268		2166			4434		2045		
Mean			113.4		108.3			221.7		102.3		

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 20)

<u>N</u>	<u>S</u>
0.15	0.00
0.15	

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1999 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		-	-	-	-	-	-	-	-	-		C
3	2h23m	5	27	1	15	6	42	102	2	7	2	
4	3:44	5	25	1	9	6	34	94	1	3	1 - 2	
5		-	-	-	-	-	-	-	-	-		C
6	3:40	4	28	1	2	5	30	80	2	9	1	
7	6:10	4	38	0	0	4	38	78	3	28	1	naked eye=1c
8	3:30	5	45	4	9	9	54	144	4	33	2 - 3	naked eye=1c
9		-	-	-	-	-	-	-	-	-		M
10	3:10	6	62	3	21	9	83	173	5	71	2 - 3	naked eye=1c
11	2:09	6	55	3	21	9	76	166	4	51	2 - 3	
12	3:10	5	40	4	16	9	56	146	5	28	2	
13	5:10	4	22	5	26	9	48	138	4	26	2	
14	4:20	4	17	6	32	10	49	149	5	19	1 - 2	
15	5:10	2	4	6	52	8	56	136	3	10	2	
16	4:16	2	4	6	70	8	74	154	4	10	3	
17		-	-	-	-	-	-	-	-	-		R-C
18		-	-	-	-	-	-	-	-	-		C
19		-	-	-	-	-	-	-	-	-		C
20	2:51	2	40	3	56	5	96	146	1	52	2	naked eye=1c
21	2:11	5	57	3	68	8	125	205	4	61	2 - 3	naked eye=2c
22	2:06	3	73	4	56	7	129	199	4	37	2	naked eye=1b, 2c
23	2:30	3	70	4	38	7	108	178	4	62	2 - 3	naked eye=1b, 1c
24	4:35	4	61	4	24	8	85	165	5	63	2	naked eye=1b, 1c
25	3:09	6	78	3	15	9	93	183	6	67	4 - 5	naked eye=1b
26	4:43	3	75	2	7	5	82	132	1	3	2 - 3	naked eye=1c
27	4:10	3	70	1	3	4	73	113	0	0	2	
28		-	-	-	-	-	-	-	-	-		M
29	2:17	3	33	4	13	7	46	116	2	10	2 - 3	
30	1:37	3	22	2	5	5	27	77	0	0	2 - 3	
31	3:24	3	22	1	10	4	32	72	0	0	4 - 5	
Sum		1868		1278		3146		1340				
Mean		81.2		55.6		136.8		58.3				

Days 23

POLAR FACULAE (Days 18)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.11	0.06
<u>0.17</u>	