

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1990 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	5h45m	6	65	6	53	12	118	238	4	34	3	
2		-	-	-	-	-	-	-	-	-	-	M
3	3:23	4	47	7	41	11	88	198	3	38	3 - 2	naked eye=1c
4	0:04	5	40	8	37	13	77	207	4	35	2 - 3	
5	4:27	4	62	8	24	12	86	206	3	43	3	
6		-	-	-	-	-	-	-	-	-	-	C
7		-	-	-	-	-	-	-	-	-	-	M
8	2:24	5	25	6	54	11	79	189	2	27	2 - 3	
9	2:33	3	14	6	47	9	61	151	2	35	2 - 3	
10		-	-	-	-	-	-	-	-	-	-	R
11	2:25	2	12	9	70	11	82	192	3	27	4	
12	4:55	3	7	8	48	11	55	165	3	18	2	
13	2:48	4	18	9	50	13	68	198	5	24	2 - 3	
14		-	-	-	-	-	-	-	-	-	-	M
15	1:06	4	50	6	15	10	65	165	2	5	2 - 3	
16		-	-	-	-	-	-	-	-	-	-	S
17	2:39	5	58	4	17	9	75	165	4	32	2 - 3	
18	1:06	5	45	5	28	10	73	173	4	30	1	
19		-	-	-	-	-	-	-	-	-	-	R
20	4:32	7	60	7	85	14	145	285	3	34	3	
21	2:48	6	64	7	86	13	150	280	3	38	4	
22	2:37	5	40	6	69	11	109	219	3	30	2 - 3	
23	6:53	3	23	6	76	9	99	189	4	46	1	
24	1:04	4	19	8	101	12	120	240	6	68	3	naked eye=1c
25	1:40	5	13	7	101	12	114	234	7	68	3	naked eye=1b
26	3:14	4	27	6	86	10	113	213	5	57	2 - 3	naked eye=1a
27	2:25	7	44	7	80	14	124	264	5	62	3	naked eye=1a
28	1:43	7	45	4	59	11	104	214	6	75	2	naked eye=1b
29		-	-	-	-	-	-	-	-	-	-	C
30	3:13	7	67	5	68	12	135	255	6	64	3	naked eye=2c
31		-	-	-	-	-	-	-	-	-	-	S
Sum		1895		2745		4640			1760			
Mean		86.1		124.8		210.9			80.0			
Days		22							POLAR FACULAE (Days 19)			
									<u>N</u>		<u>S</u>	
8cm Refractor X67 Projection 15cm									0.00		0.00	
									0.00			

MONTHLY REPOT OF SUNSPOT OBSERVATION

FEBRUARY 1990 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		-	-	-	-	-	-	-	-	-		S
2	2h47m	7	61	5	30	12	91	211	4	38	3	
3		-	-	-	-	-	-	-	-	-		C
4		-	-	-	-	-	-	-	-	-		C
5	6:35	4	45	3	11	7	56	126	4	29	4	
6	4:12	3	32	2	16	5	48	98	2	16	3 - 4	
7	2:10	4	23	3	12	7	35	105	1	5	3 - 4	
8	2:16	6	21	3	14	9	35	125	0	0	3	
9	3:13	6	16	3	19	9	35	125	0	0	3	
10	1:27	5	17	2	7	7	24	94	2	6	2	
11		-	-	-	-	-	-	-	-	-		R
12	- 04	4	25	2	10	6	35	95	4	19	3	naked eye=1c
13	2:23	4	30	2	5	6	35	95	5	33	2	naked eye=1c
14		-	-	-	-	-	-	-	-	-		C
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		S
17	3:39	3	9	2	4	5	13	63	1	2	2 - 3	
18	1:49	2	6	1	2	3	8	38	0	0	2	
19		-	-	-	-	-	-	-	-	-		C
20	6:35	4	13	4	43	8	56	136	1	5	2 - 1	
21	2:29	4	29	5	49	9	78	168	4	19	2 - 3	
22	2:32	4	34	9	56	13	90	220	5	21	3	
23		-	-	-	-	-	-	-	-	-		C-R
24		-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-		C
26		-	-	-	-	-	-	-	-	-		C
27		-	-	-	-	-	-	-	-	-		C
28	1:49	3	51	8	56	11	107	217	5	39	2	naked eye=1c
Sum		1042		874		1916			612			
Mean		69.5		58.3		127.7			40.8			

Days 15

POLAR FACULAE(Days 14)

8cn Refractor X67 Projection 15cm

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

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1990 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		
U.	T.											5 - 1
1		-	-	-	-	-	-	-	-	-		C-R
2		-	-	-	-	-	-	-	-	-		R
3		-	-	-	-	-	-	-	-	-		C
4	2h16m	4	42	5	30	9	72	162	2	6	2 - 3	
5	3:10	2	20	3	24	5	44	94	1	3	1 - 2	
6	0:21	3	20	3	32	6	52	112	2	12	2 - 3	naked eye=1c
7		-	-	-	-	-	-	-	-	-		C
8	3:30	3	15	2	35	5	50	100	1	17	3	naked eye=1c
9	2:40	2	13	2	23	4	36	76	1	14	2 - 3	naked eye=1c
10	1:00	3	13	3	23	6	36	96	1	15	2 - 3	naked eye=1c
11	1:08	4	13	3	14	7	27	97	1	1	2	
12	5:29	5	31	2	9	7	40	110	2	8	3	
13	1:16	5	37	1	5	6	42	102	1	4	2	
14	1:48	4	30	3	7	7	57	107	1	7	2	
15	3:00	6	38	2	14	8	52	132	1	2	2	
16	2:53	7	45	2	16	9	61	151	0	0	3	
17	3:00	5	38	3	20	8	58	138	0	0	2	
18		-	-	-	-	-	-	-	-	-		C
19	5:30	8	44	10	66	18	110	290	5	16	3	
20	0:58	6	42	11	75	17	117	287	6	51	2	
21	1:10	6	32	11	94	17	126	296	7	68	2 - 3	
22	4:16	2	15	7	109	9	124	214	5	53	2 - 3	
23	0:32	4	14	8	141	12	155	275	7	73	3	naked eye=1c
24		-	-	-	-	-	-	-	-	-		C
25	3:02	6	13	6	141	12	154	274	8	131	2 - 3	naked eye=2C
26	0:44	3	9	7	117	10	126	226	5	70	1 - 2	naked eye=2c
27	1:48	5	13	9	110	14	123	263	5	39	2 - 3	
28		-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-		R
30	1:49	4	10	10	54	14	64	204	5	22	3 - 4	
31		-	-	-	-	-	-	-	-	-		C
Sum		1517		2289		3806			1282			
Mean		69.0		104.0		173.0			58.3			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 20)

<u>N</u>	<u>S</u>
<u>0.10</u>	<u>0.25</u>
<u>0.35</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1990 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	3h20m	5	26	5	24	10	50	150	2	14	3	
2	3:11	3	25	6	26	9	51	141	3	8	3	
3	3:50	3	40	6	18	9	58	148	3	7	2	
4		-	-	-	-	-	-	-	-	-	-	C
5	6:15	5	53	5	14	10	67	167	5	40	2	
6	3:45	5	54	6	21	11	75	185	5	46	2	
7		-	-	-	-	-	-	-	-	-	-	C
8	6:50	6	46	6	18	12	64	184	3	8	2	
9	2:12	5	33	3	12	8	45	125	0	0	2 - 3	
10	3:00	6	15	3	9	9	24	114	2	6	1 - 2	
11	2:15	6	31	3	11	9	42	132	2	9	3 - 4	
12	4:50	3	19	4	9	7	28	98	2	5	2	
13		-	-	-	-	-	-	-	-	-	-	C
14	3:10	5	37	5	41	10	78	178	3	16	1 - 2	
15	3:46	8	55	5	61	13	116	246	4	24	3	
16	5:30	6	47	5	65	11	112	222	4	18	2	
17		-	-	-	-	-	-	-	-	-	-	C-R
18	2:58	7	58	5	112	12	170	290	4	95	2	naked eye=1b
19	2:16	5	48	7	115	12	163	283	6	71	2 - 3	naked eye=1b
20	3:00	9	63	9	101	18	164	344	8	81	3 - 4	naked eye=1c
21	4:05	7	48	10	91	17	139	309	7	78	3 - 4	
22		-	-	-	-	-	-	-	-	-	-	M
23	5:35	6	44	5	50	11	94	204	4	25	2	
24	3:07	7	49	7	53	14	102	242	4	31	2 - 3	
25	3:06	6	47	8	40	14	87	227	5	23	3	
26	3:40	7	31	5	20	12	51	171	5	23	2	
27	3:02	5	34	5	25	10	59	159	8	38	2	
28	3:00	4	24	3	25	7	49	119	3	14	2	
29		-	-	-	-	-	-	-	-	-	-	R
30	3:05	3	12	4	22	7	34	104	2	12	2	
Sum		2259		2283		4542			1632			
Mean		94.1		95.1		189.3			68.0			

Days 24

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 20)

<u>N</u>	<u>S</u>
<u>0.15</u>	<u>0.05</u>
<u>0.20</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1990 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	2h22m	2	8	5	8	7	16	86	1	2	1 - 2	
2	4:49	2	8	4	9	6	17	77	2	6	2	
3	2:11	4	11	3	5	7	16	86	1	4	2	
4		-	-	-	-	-	-	-	-	-	-	C
5	7:55	2	17	4	14	6	31	91	1	4	1 - 2	
6	2:43	3	28	5	30	8	58	138	4	24	3	
7		-	-	-	-	-	-	-	-	-	-	R
8		-	-	-	-	-	-	-	-	-	-	C
9	1:27	4	46	4	44	8	90	170	3	64	3	
10	1:14	4	38	4	36	8	74	154	3	52	3	
11	3:30	6	42	4	29	10	71	171	5	38	2	
12	3:30	6	51	4	20	10	71	171	3	25	2	
13		-	-	-	-	-	-	-	-	-	-	C
14		-	-	-	-	-	-	-	-	-	-	C-R
15	2:45	6	76	3	42	9	118	208	4	30	3 - 4	
16	3:17	4	65	2	74	6	139	199	2	24	3	
17	3:30	6	52	5	82	11	134	244	6	85	3	naked eye=1b
18		-	-	-	-	-	-	-	-	-	-	C
19		-	-	-	-	-	-	-	-	-	-	R
20	4:10	4	61	4	98	8	159	239	2	89	2 - 3	naked eye=1a,1c
21	5:20	7	73	5	104	12	177	297	4	63	2 - 3	naked eye=1b
22	2:52	5	66	6	109	11	175	285	6	54	3 - 4	naked eye=1c
23	3:09	4	60	4	90	8	150	230	4	80	3	
24	3:22	4	58	3	97	7	155	225	3	81	2 - 3	
25	3:43	8	39	4	43	12	82	202	4	41	3 - 4	
26	4:02	6	45	5	39	11	84	194	3	31	4	
27	1:49	7	74	4	50	11	97	207	2	25	4 - 5	
28	4:05	4	34	4	31	8	65	145	4	18	2	
29	1:58	5	47	5	25	10	72	172	5	35	4 - 5	
30	3:00	3	35	3	19	6	54	114	4	47	3 - 4	
31		-	-	-	-	-	-	-	-	-	-	C
Sum		2067		2038		4105			1682			
Mean		89.9		88.6		178.5			73.1			

Days 23

8cm Refractor X67 Projection 15cm

POLAR FACULAE (Days 18)

<u>N</u>	<u>S</u>
0.83	0.06

0.89

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1990 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		-	-	-	-	-	-	-	-	-		R
3	6h30m	3	15	4	25	7	40	110	2	9	3 - 4	
4		-	-	-	-	-	-	-	-	-		C
5		-	-	-	-	-	-	-	-	-		R-C
6	4:20	5	26	4	29	9	55	145	3	21	5	
7	3:54	6	12	5	35	11	47	157	8	42	4 - 5	
8		-	-	-	-	-	-	-	-	-		M
9		-	-	-	-	-	-	-	-	-		C-R
10		-	-	-	-	-	-	-	-	-		M
11	3:21	4	83	7	16	11	99	209	6	86	3 - 4	naked eye=1c
12	1:15	6	91	2	8	8	99	179	4	19	3	naked eye=1c
13	2:04	6	67	3	21	9	88	178	2	16	3 - 4	naked eye=1c
14	3:37	8	55	3	32	11	87	197	5	27	3 - 2	naked eye=1b
15		-	-	-	-	-	-	-	-	-		R
16		-	-	-	-	-	-	-	-	-		R
17	3:18	3	32	7	47	10	79	179	7	46	3	
18	1:42	3	35	3	30	6	65	125	3	39	3	
19	2:55	4	20	4	23	8	43	123	3	21	3 - 2	
20		-	-	-	-	-	-	-	-	-		C
21		-	-	-	-	-	-	-	-	-		M
22	4:20	2	7	4	21	6	28	88	0	0	3	
23	4:29	2	4	5	22	7	26	96	1	14	3	
24		-	-	-	-	-	-	-	-	-		M
25		-	-	-	-	-	-	-	-	-		C
26		-	-	-	-	-	-	-	-	-		R
27		-	-	-	-	-	-	-	-	-		R
28	5:30	4	34	6	71	10	105	205	5	50	2	
29	2:04	7	71	7	82	14	153	293	5	65	3 - 4	
30		-	-	-	-	-	-	-	-	-		C
Sum		1182		1102		2284			995			
Mean		84.4		78.7		163.1			71.1			

Days 14

POLAR FACULAE(Days 14)

N	S
<u>1.43</u>	<u>0.07</u>
<u>1.50</u>	

8cm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1990 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		-	-	-	-	-	-	-	-	-		C
4		-	-	-	-	-	-	-	-	-		R
5	2h49m	4	86	7	97	11	183	293	6	71	3	naked eye=1b
6	2:40	4	54	7	58	11	112	222	4	42	2 - 3	naked eye=1b
7	1:40	5	56	6	53	11	109	219	5	42	2	naked eye=1c
8	2:46	4	56	7	44	11	100	210	2	16	4	
9	2:28	3	30	6	22	9	52	142	2	3	4	
10	1:41	4	30	3	8	7	38	108	1	5	3	
11	3:45	5	33	5	15	10	48	148	5	31	2	
12		-	-	-	-	-	-	-	-	-		M
13		-	-	-	-	-	-	-	-	-		M
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		R
16	3:10	5	28	2	5	7	33	103	1	3	2 - 3	
17	2:19	6	30	4	8	10	38	138	1	10	3 - 4	
18	5:04	2	6	2	17	4	23	63	1	4	3	
19	0:59	3	12	1	28	4	40	80	1	3	2 - 3	
20	3:09	3	21	1	27	4	48	88	1	6	2 - 3	
21	3:00	5	55	3	31	8	86	166	5	24	3	naked eye=1c
22		-	-	-	-	-	-	-	-	-		M
23	4:50	7	57	5	26	12	83	203	5	36	2	naked eye=2c
24	5:20	6	90	9	33	15	123	273	5	77	3	naked eye=2c
25		-	-	-	-	-	-	-	-	-		M
26		-	-	-	-	-	-	-	-	-		M
27	0:05	4	62	7	54	11	116	226	5	60	3	naked eye=1b
28		-	-	-	-	-	-	-	-	-		M
29		-	-	-	-	-	-	-	-	-		M
30	2:50	4	15	6	31	10	46	146	6	22	3	
31	4:09	5	20	9	40	14	60	200	7	30	3 - 4	
Sum		1531		1497		3028			1115			
Mean		85.1		83.2		168.2			61.9			

Days 18

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 15)

<u>N</u>	<u>S</u>
1.27	0.00
1.27	

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1990 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	3h53m	4	27	7	49	11	76	186	4	19	4 - 5	
2	3:59	9	49	5	41	14	90	230	3	18	3	
3	4:08	7	46	4	31	11	77	187	3	12	3	
4	4:36	5	38	5	23	10	61	161	2	10	3	naked eye=1c
5	-1:01	4	32	4	23	8	55	135	4	33	3	naked eye=1c
6	2:55	4	28	5	23	9	51	141	6	34	2 - 3	naked eye=1c
7	3:55	4	29	4	26	8	55	135	5	37	3	naked eye=1c
8	4:08	6	35	4	27	10	62	162	4	27	3 - 4	naked eye=1c
9		-	-	-	-	-	-	-	-	-		M
10		-	-	-	-	-	-	-	-	-		R
11	4:20	6	45	8	23	14	68	208	2	8	2	
12	4:21	7	61	4	13	11	74	184	3	24	2	
13		-	-	-	-	-	-	-	-	-		M
14	6:06	9	75	7	39	16	114	274	9	92	3	
15	1:06	8	79	9	39	17	118	288	8	87	4	
16	7:11	8	77	6	38	14	115	255	8	76	3 - 4	naked eye=1c
17		-	-	-	-	-	-	-	-	-		C
18		-	-	-	-	-	-	-	-	-		M
19	6:21	9	102	8	73	17	175	345	5	53	2	naked eye=1c
20	4:12	9	84	10	129	19	213	403	6	90	4	naked eye=2c
21	3:47	7	45	11	134	18	179	359	4	57	3	naked wye=3c
22		-	-	-	-	-	-	-	-	-		M
23		-	-	-	-	-	-	-	-	-		C
24	1:54	6	31	9	188	15	219	369	8	103	3	naked eye=1a,1c
25	3:23	7	29	9	180	16	209	369	8	123	3	naked eye=1a,1c
26	2:13	7	35	7	121	14	156	296	5	66	3	naked eye=1b
27	2:01	6	48	6	106	12	154	274	4	33	4	naked eye=1c
28	1:22	5	36	7	84	12	120	240	4	49	4	naked eye=1b
29	2:52	3	57	8	57	11	114	224	2	55	3	naked eye=1b
30	3:54	4	63	9	54	13	117	247	4	61	3	naked eye=1b
31	0:00	4	53	7	30	11	83	193	3	47	2	naked eye=1c
Sum		2684		3181		5865			2354			
Mean		111.8		132.5		244.4			98.1			

Days 24

POLAR FACULAE(Days 23)

8cm Refractor X67 Projection 15cm

<u>N</u>	<u>S</u>
0.57	0.00
0.57	



MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1990 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f			Cent.		Seeing	Remarks
		U.	T.	g	f	g	f	R	g	f		
1	4h05m	3	41	6	24	9	65	155	5	31	3	naked eye=1C
2	3:53	4	38	6	28	10	66	166	5	28	3	
3		-	-	-	-	-	-	-	-	-		C
4	3:40	7	32	4	24	11	56	166	4	22	3	
5		-	-	-	-	-	-	-	-	-		M
6	2:41	6	19	4	19	10	38	138	4	18	2 - 3	
7		-	-	-	-	-	-	-	-	-		C
8	3:08	7	20	4	11	11	31	141	5	14	2 - 3	
9	2:47	7	30	4	12	11	42	152	3	18	2 - 3	
10	3:35	7	23	5	10	12	33	153	3	10	2 - 3	
11	3:43	7	21	6	16	13	37	167	3	11	3	
12	3:50	6	23	4	17	10	40	140	4	15	2	
13	3:30	9	25	5	20	14	45	185	5	14	2	
14		-	-	-	-	-	-	-	-	-		C
15		-	-	-	-	-	-	-	-	-		R
16		-	-	-	-	-	-	-	-	-		R
17		-	-	-	-	-	-	-	-	-		R
18	2:45	3	17	6	33	9	50	140	4	30		
19	1:20	4	18	8	58	12	76	196	7	47	3	naked eye=1c
20	7:54	7	22	6	49	13	71	201	4	26	3	naked eye=1c
21	2:42	6	23	8	52	14	75	215	5	34	2 - 3	naked eye=1c
22	1:35	6	37	6	40	12	77	197	2	23	2 - 3	
23	2:35	5	21	6	36	11	57	167	1	8	2 - 3	
24		-	-	-	-	-	-	-	-	-		M
25		-	-	-	-	-	-	-	-	-		R
26		-	-	-	-	-	-	-	-	-		R
27	4:09	1	23	6	39	7	62	132	2	51	3	naked eye=1c
28		-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-		C
30		-	-	-	-	-	-	-	-	-		R
Sum			1383		1428			2811		1060		
Mean			81.4		84.0			165.4		62.4		

Days 17

8cm Refractor X67 Projection 15cm

POLAR FACULAE(Days 16)

<u>N</u>	<u>S</u>
0.44	0.00
<u>0.44</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1990 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	7h01m	5	10	5	68	10	78	178	4	38	2	naked eye=1c
2	4:11	3	9	3	63	6	72	132	1	36	2 - 3	
3	0:10	5	18	5	63	10	81	181	4	51	1 - 2	
4		-	-	-	-	-	-	-	-	-		C
5		-	-	-	-	-	-	-	-	-		C
6		-	-	-	-	-	-	-	-	-		R
7		-	-	-	-	-	-	-	-	-		R
8		-	-	-	-	-	-	-	-	-		R
9		-	-	-	-	-	-	-	-	-		M
10	1:03	5	38	7	53	12	91	211	4	26	2 - 3	naked eye=1c
11	0:13	7	48	9	65	16	113	273	9	48	2 - 3	
12		-	-	-	-	-	-	-	-	-		C
13		-	-	-	-	-	-	-	-	-		R
14		-	-	-	-	-	-	-	-	-		M
15		-	-	-	-	-	-	-	-	-		C
16	2:50	4	76	10	72	14	148	288	7	74	2 - 3	naked eye=1c
17		-	-	-	-	-	-	-	-	-		M
18	3:59	6	48	7	72	13	120	250	5	54	3	naked eye=1c
19	4:20	6	40	5	51	11	91	201	1	41	1 - 2	
20	2:00	8	41	6	47	14	88	228	1	34	3	
21	4:19	8	44	4	25	12	69	189	4	23	3 - 4	
22	2:58	7	52	6	21	13	73	203	6	35	2	
23	2:40	6	44	5	10	11	54	164	5	34	2	
24	4:01	7	51	7	35	14	86	226	5	47	3	
25		-	-	-	-	-	-	-	-	-		C
26		-	-	-	-	-	-	-	-	-		M
27		-	-	-	-	-	-	-	-	-		M
28	4:06	6	26	4	38	10	64	164	1	25	3	
29	5:50	4	14	3	33	7	47	117	1	21	1 - 2	
30		-	-	-	-	-	-	-	-	-		R
31	4:58	1	8	4	35	5	43	93	1	8	2	
Sum			1447		1651			3098		1185		
Mean			90.4		103.2			193.6		94.1		

Days 16

POLAR FACULAE(Days 13)

	<u>N</u>	<u>S</u>
8cm Refractor X67 Projection 15cm	0.46	0.00
	<u>0.46</u>	

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1990 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	4h51m	2	7	4	42	6	49	109	2	13	3	naked eye=1c
2	4:25	2	8	4	41	6	49	109	2	32	3 - 4	naked eye=1c
3	4:20	2	7	5	46	7	53	123	3	28	1 - 2	naked eye=1c
4	-	-	-	-	-	-	-	-	-	-	-	R
5	5:20	4	20	7	74	11	94	204	6	77	4	naked eye=1c
6	0:04	5	31	10	66	15	97	247	7	48	2	
7	3:59	5	63	9	71	14	134	274	5	43	3 - 4	
8	4:07	5	75	7	52	12	127	247	3	38	2	naked eye=1c
9	-	-	-	-	-	-	-	-	-	-	-	C
10	5:00	5	48	6	33	11	81	191	5	41	1	naked eye=1c
11	- 32	6	39	4	25	10	64	164	5	34	1 - 2	naked eye=1c
12	1:17	5	33	6	36	11	69	179	7	38	2	naked eye=1c
13	-	-	-	-	-	-	-	-	-	-	-	M
14	1:33	4	60	5	34	9	94	184	4	24	3 - 4	
15	2:45	4	66	3	25	7	91	161	2	16	3	
16	4:11	4	58	2	25	6	83	143	1	1	2	naked eye=1b,1c
17	4:10	4	80	3	20	7	100	170	2	7	2 - 3	naked eye=2b
18	2:42	1	95	3	9	4	104	144	1	46	2	naked eye=2b
19	-	-	-	-	-	-	-	-	-	-	-	C-R
20	-	-	-	-	-	-	-	-	-	-	-	R
21	2:06	3	100	2	20	5	120	170	3	101	2	naked eye=2b
22	3:34	3	79	4	18	7	97	167	3	53	2	naked eye=1b,1c
23	-	-	-	-	-	-	-	-	-	-	-	C
24	3:41	1	54	5	41	6	95	155	3	35	3	
25	5:00	1	35	5	36	6	71	131	2	23	2	
26	-	-	-	-	-	-	-	-	-	-	-	C-R
27	1:51	3	12	6	50	9	62	152	3	35	2	
28	-	-	-	-	-	-	-	-	-	-	-	R
29	-	-	-	-	-	-	-	-	-	-	-	R
30	-	-	-	-	-	-	-	-	-	-	-	R
Sum		1660		1764				3424		1423		
Mean		83.0		88.2				171.2		71.2		

Days 20

POLAR FACULAE (Days 17)

8cm Refractor X67 Projection 15cm

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

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1990 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	- 46	4	16	8	24	12	40	160	5	17	1 - 2	
2	- 23	7	33	8	17	15	50	200	7	25	1	
3	2h12m	7	52	10	30	17	82	252	5	22	2	
4	4:04	7	57	11	37	18	94	274	6	18	2 - 3	
5	2:16	8	64	9	43	17	107	277	7	23	3 - 4	
6	3:44	7	77	7	35	14	112	252	8	64	2 - 3	
7	3:28	6	82	7	44	13	126	256	6	90	2 - 3	
8	4:43	7	86	6	67	13	153	283	8	105	3	
9		-	-	-	-	-	-	-	-	-		C
10	0:34	10	96	8	56	18	152	332	8	54	2	
11		-	-	-	-	-	-	-	-	-		M
12	1:45	9	87	4	13	13	100	230	0	0	2	
13	2:14	9	83	3	8	12	91	211	3	26	3	naked eye=1c
14	1:32	6	75	1	2	7	77	147	1	24	1 - 2	naked eye=1c
15	2:30	6	97	0	0	6	97	157	3	39	2	naked eye=2c
16		-	-	-	-	-	-	-	-	-		M
17	6:00	4	92	1	17	5	109	159	5	109	1 - 2	naked eye=2c
18	1:23	4	110	1	15	5	125	175	5	114	2 - 3	naked eye=3c
19	2:07	6	115	1	16	7	131	201	4	72	3	naked eye=2c
20	1:31	4	96	2	12	6	108	168	3	37	3	naked eye=1c
21	5:05	5	83	2	8	7	91	161	1	5	2	
22	1:52	4	58	2	23	6	81	141	0	0	1 - 2	
23		-	-	-	-	-	-	-	-	-		M
24	0:12	2	26	4	51	6	77	137	1	10	2	
25	2:16	2	12	6	66	8	78	158	5	38	2	
26		-	-	-	-	-	-	-	-	-		C
27		-	-	-	-	-	-	-	-	-		S
28		-	-	-	-	-	-	-	-	-		M
29	4:41	3	4	7	79	10	83	183	7	56	4	
30	4:35	2	4	8	76	10	80	180	4	11	2 - 3	
31	1:28	1	5	12	59	13	64	194	6	19	2	
Sum		2810		2078		4888			2058			
Mean		117.1		86.6		203.7			85.8			

Days 24

POLAR FACULAE(Days 21)

N S  
0.05 0.05

8cm Refractor X67 Projection 15cm

0.10