

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1987 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	2:11m	1	10	0	0	1	10	20	1	10	2	
2		-	-	-	-	-	-	-	-	-	-	C
3	3:00	1	4	0	0	1	4	14	1	4	3	
4	0:01	1	7	0	0	1	7	17	1	7	4	
5		-	-	-	-	-	-	-	-	-	-	C
6	1:00	1	2	0	0	1	2	12	0	0	4	
7	1:27	1	2	0	0	1	2	12	0	0	3	
8	1:17	0	0	0	0	0	0	0	0	0	3	
9	3:25	0	0	0	0	0	0	0	0	0	3	
10	2:39	0	0	0	0	0	0	0	0	0	3	
11	0:06	0	0	0	0	0	0	0	0	0	4	
12		-	-	-	-	-	-	-	-	-	-	C
13	1:34	0	0	0	0	0	0	0	0	0	4	
14	2:26	0	0	0	0	0	0	0	0	0	5	
15	1:08	0	0	1	1	1	1	11	0	0	4	
16	1:19	0	0	0	0	0	0	0	0	0	2	
17	0:10	0	0	0	0	0	0	0	0	0	2	
18	2:39	0	0	1	2	1	2	12	0	0	4	
19	4:31	0	0	1	1	1	1	11	0	0	2	
20	1:35	0	0	0	0	0	0	0	0	0	3	
21	1:36	0	0	1	6	1	6	16	1	6	4	
22	2:29	0	0	1	14	1	14	24	1	14	3	
23		-	-	-	-	-	-	-	-	-	-	R
24	3:29	0	0	1	10	1	10	20	0	0	2 - 3	
25	2:00	0	0	1	1	1	1	11	0	0	2 - 3	
26	2:12	1	2	1	1	2	3	23	0	0	3	
27	1:26	1	6	0	0	1	6	16	0	0	3 - 4	
28	2:03	1	4	1	2	2	6	26	0	0	3 - 4	
29	2:16	1	1	1	3	2	4	24	0	0	2 - 3	
30	5:30	0	0	0	0	0	0	0	0	0	2 - 3	
31	3:14	0	0	1	1	1	1	11	0	0	3 - 4	
Sum			128		152			280		91		
Mean			4.7		5.6			10.4		3.4		

Days 27

8cm Refractor X67 Projection 15cm

POLAR FACULAE	
N	S
0.15	0.93
1.07	

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1987 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	2h17m	0	0	0	0	0	0	0	0	0	2 - 3	
2		-	-	-	-	-	-	-	-	-		C
3	5:16	0	0	0	0	0	0	0	0	0	3	
4	2:35	0	0	0	0	0	0	0	0	0	3 - 4	
5	1:20	0	0	0	0	0	0	0	0	0	4 - 5	
6	5:13	0	0	0	0	0	0	0	0	0	2	
7	2:07	0	0	0	0	0	0	0	0	0	3	
8	1:26	0	0	0	0	0	0	0	0	0	3	
9	1:57	0	0	0	0	0	0	0	0	0	2 - 3	
10		-	-	-	-	-	-	-	-	-		M
11	0:47	0	0	0	0	0	0	0	0	0	2 - 3	
12		-	-	-	-	-	-	-	-	-		R
13	6:30	0	0	0	0	0	0	0	0	0	1 - 2	
14	2:19	0	0	0	0	0	0	0	0	0	2	
15	5:52	1	3	0	0	1	3	13	1	3	2	
16	3:30	0	0	0	0	0	0	0	0	0	2	
17		-	-	-	-	-	-	-	-	-		C-S
18		-	-	-	-	-	-	-	-	-		C
19	4:30	0	0	0	0	0	0	0	0	0	1 - 2	
20	2:09	1	1	0	0	1	1	11	0	0	3	
21	2:00	0	0	0	0	0	0	0	0	0	2	
22		-	-	-	-	-	-	-	-	-		M
23	2:48	0	0	0	0	0	0	0	0	0	2 - 3	
24	2:14	0	0	0	0	0	0	0	0	0	2 - 3	
25	2:21	1	2	0	0	1	2	12	0	0	3	
26	4:20	1	2	0	0	1	2	12	0	0	1 - 2	
27	1:40	1	2	1	1	2	3	23	1	1	2	
28	4:22	1	2	1	1	2	3	23	1	1	2 - 3	
Sum		72		22		94			35			
Mean		3.3		1.0		4.3			1.6			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE	
N	S
0.00	1.11
1.11	



MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1987 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	2h02m	1	2	1	3	2	5	25	1	1	2 - 3	
3	0:53	1	3	1	4	2	7	27	0	0	3	
4	1:30	1	3	0	0	1	3	13	0	0	2	
5	1:59	1	3	1	1	2	4	24	0	0	2 - 3	
6	4:07	1	14	0	0	1	14	24	1	14	2	
7		-	-	-	-	-	-	-	-	-		S
8	0:00	1	19	0	0	1	19	29	0	0	4 - 5	
9	3:00	1	8	0	0	1	8	18	0	0	1 - 2	
10	4:00	1	2	0	0	1	2	12	0	0	2	
11		-	-	-	-	-	-	-	-	-		C-S
12	2:40	0	0	0	0	0	0	0	0	0	2	
13		-	-	-	-	-	-	-	-	-		R
14		-	-	-	-	-	-	-	-	-		C
15	0:29	0	0	1	2	1	2	12	0	0	2	
16	0:00	0	0	1	2	1	2	12	0	0	2 - 3	
17	- 40	0	0	1	2	1	2	12	0	0	1	
18	2:11	0	0	2	8	2	8	28	1	6	3	
19	- 07	0	0	1	5	1	5	15	0	0	2	
20	1:52	0	0	0	0	0	0	0	0	0	2	
21	1:42	1	7	0	0	1	7	17	1	7	3	
22	0:08	1	11	0	0	1	11	21	0	0	3	
23		-	-	-	-	-	-	-	-	-		R
24		-	-	-	-	-	-	-	-	-		R
25	2:39	1	4	0	0	1	4	14	0	0	1	
26	2:56	1	2	0	0	1	2	12	0	0	2	
27	3:02	1	3	0	0	1	3	13	0	0	3	
28	2:20	1	2	0	0	1	2	12	0	0	1	
29		-	-	-	-	-	-	-	-	-		C
30	1:23	1	6	0	0	1	6	16	1	6	3 - 4	
31	2:54	1	7	0	0	1	7	17	1	7	3	
Sum			256		117			373		101		
Mean			11.1		5.1			16.2		4.4		

Days 23

8cm Refractor X67 Projection 15cm

POLAR FACULAE

<u>N</u>	<u>S</u>
0.00	0.56

0.56

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1987 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	4h23m	2	7	0	0	2	7	27	2	7	2	
2		-	-	-	-	-	-	-	-	-	-	R
3		-	-	-	-	-	-	-	-	-	-	M
4	1:24	1	2	0	0	1	2	12	0	0	4	
5	2:09	1	2	1	7	2	9	29	0	0	3	
6	2:40	1	2	1	15	2	17	37	0	0	2	
7		-	-	-	-	-	-	-	-	-	-	R
8	2:50	0	0	4	32	4	32	72	2	21	2 - 3	
9	0:05	0	0	4	45	4	45	85	1	21	3 - 4	
10		-	-	-	-	-	-	-	-	-	-	M
11	4:42	0	0	3	45	3	45	75	3	18	2	
12	1:20	1	2	3	34	4	36	76	2	26	2	
13	2:31	1	2	4	41	5	43	93	3	38	2	
14	3:32	1	2	4	38	5	40	90	3	30	2 - 3	
15	2:32	1	4	4	29	5	33	83	2	6	2	
16	1:46	1	4	4	29	5	33	83	2	8	4	
17	2:27	0	0	3	22	3	22	52	0	0	2 - 3	
18	2:42	0	0	2	16	2	16	36	0	0	3	
19	5:00	0	0	2	10	2	10	30	0	0	3	
20	0:14	0	0	1	2	1	2	12	0	0	3	
21	0:13	0	0	1	3	1	3	13	1	1	3	
22	3:50	1	2	0	0	1	2	12	0	0	2	
23	0:00	2	4	1	1	3	5	35	1	1	4	
24	1:51	2	10	1	1	3	11	41	1	1	3	
25	5:00	2	6	0	0	2	6	26	0	0	2	
26		-	-	-	-	-	-	-	-	-	-	C-R
27	2:00	1	2	0	0	1	2	12	1	2	2	
28	2:50	1	3	0	0	1	3	13	1	3	2	
29	3:13	1	2	1	4	2	6	26	2	6	3 - 4	
30	2:46	1	3	1	6	2	9	29	1	6	3	
Sum			269		830			1099		475		
Mean			10.8		33.2			44.0		19.0		

Days 25

8cm Refractor X67 Projection 15cm

POLAR FACULAE	
N	S
0.12	0.36
0.48	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1987 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		-	-	-	-	-	-	-	-	-		
2	2h18m	1	5	2	8	3	13	43	0	0	4 - 5	C
3	5:10	0	0	2	4	2	4	24	0	0	3	
4	3:13	0	0	1	2	1	2	12	0	0	2	
5	3:32	0	0	2	7	2	7	27	1	2	2	
6	2:17	0	0	2	11	2	11	31	1	2	2	
7	3:20	0	0	2	17	2	17	37	1	4	3	
8	3:42	0	0	2	11	2	11	31	1	1	3	
9	3:04	0	0	1	13	1	13	23	0	0	4	
10	4:15	0	0	1	12	1	12	22	1	7	3	
11		-	-	-	-	-	-	-	-	-		C
12		-	-	-	-	-	-	-	-	-		C
13		-	-	-	-	-	-	-	-	-		C-R
14		-	-	-	-	-	-	-	-	-		R
15		-	-	-	-	-	-	-	-	-		C
16	2:26	1	16	2	8	3	24	54	0	0	2	
17		-	-	-	-	-	-	-	-	-		C-R
18		-	-	-	-	-	-	-	-	-		M
19	2:52	1	38	2	13	3	51	81	0	0	3 - 4	
20	3:49	1	27	1	4	2	31	51	1	4	3	
21	1:39	1	28	1	2	2	30	50	2	9	3	
22	2:19	1	31	0	0	1	31	41	1	13	2	
23		-	-	-	-	-	-	-	-	-		R
24	2:05	1	43	0	0	1	43	53	0	0	3 - 4	
25	6:00	1	32	0	0	1	32	42	0	0	2	
26	0:18	2	27	0	0	2	27	47	0	0	2 - 3	
27	3:30	2	10	0	0	2	10	30	1	6	1	
28	3:29	2	15	0	0	2	15	35	1	14	3	
29	3:10	1	7	0	0	1	7	17	1	7	1	
30	- 14	1	6	0	0	1	6	16	1	4	2	
31	2:14	1	3	0	0	1	3	13	0	0	2 - 3	
Sum		458		322		780			203			
Mean		20.8		14.6		35.5			9.2			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE	
N	S
0.20	0.60
0.80	



MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1987 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	2h21m	1	8	0	0	1	8	18	0	0	3	
2	0:52	2	4	0	0	2	4	24	1	1	3	
3		-	-	-	-	-	-	-	-	-		C
4	0:16	0	0	0	0	0	0	0	0	0	2	
5	2:35	0	0	0	0	0	0	0	0	0	2	
6	2:59	0	0	0	0	0	0	0	0	0	3	
7	2:55	0	0	0	0	0	0	0	0	0	3	
8	2:56	0	0	0	0	0	0	0	0	0	3	
9		-	-	-	-	-	-	-	-	-		C-R
10		-	-	-	-	-	-	-	-	-		C
11	2:42	0	0	0	0	0	0	0	0	0	2	
12	5:43	0	0	2	6	2	6	26	1	2	2	
13		-	-	-	-	-	-	-	-	-		C
14	3:17	1	1	0	0	1	1	11	0	0	2 - 3	
15		-	-	-	-	-	-	-	-	-		R
16	0:11	0	0	0	0	0	0	0	0	0	3	
17	0:17	1	1	0	0	1	1	11	0	0	4 - 5	
18	0:20	1	1	1	3	2	4	24	2	4	2 - 3	
19	0:50	1	5	1	3	2	8	28	1	5	3	
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		C-R
22	0:05	1	14	1	6	2	20	40	1	6	3	
23	0:18	1	24	1	4	2	28	48	1	24	3	
24	0:16	1	22	1	2	2	24	44	1	22	2 - 3	
25	0:16	1	21	1	2	2	23	43	1	21	3	
26	0:14	3	12	1	3	4	15	55	1	3	4	
27	1:52	3	9	1	2	4	11	51	0	0	2 - 3	
28	-1:30	3	8	2	4	5	12	62	0	0	3	
29		-	-	-	-	-	-	-	-	-		C
30	3:17	3	4	0	0	3	4	34	0	0	4 - 5	
Sum		364		155		519			188			
Mean		16.5		7.0		23.6			8.5			

Days 22

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
0.55	0.14
0.68	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1987 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	0h15m	0	0	0	0	0	0	0	0	0	2	
3		-	-	-	-	-	-	-	-	-		R
4	0:12	0	0	0	0	0	0	0	0	0	4	
5		-	-	-	-	-	-	-	-	-		M
6	- 54	0	0	0	0	0	0	0	0	0	3	
7	0:01	0	0	0	0	0	0	0	0	0	2	
8	0:07	0	0	1	3	1	3	13	0	0	4	
9	3:19	0	0	1	5	1	5	15	0	0	3	
10	2:55	0	0	1	3	1	3	13	0	0	3	
11	-2:30	0	0	0	0	0	0	0	0	0	1 - 2	
12		-	-	-	-	-	-	-	-	-		M
13	1:40	0	0	0	0	0	0	0	0	0	2	
14	3:11	0	0	0	0	0	0	0	0	0	2	
15		-	-	-	-	-	-	-	-	-		C
16	1:56	1	3	0	0	1	3	13	0	0	3	
17	1:51	0	0	1	8	1	8	18	0	0	3	
18		-	-	-	-	-	-	-	-	-		M
19		-	-	-	-	-	-	-	-	-		R
20	4:30	0	0	2	11	2	11	31	0	0	1	
21	0:52	1	4	5	18	4	22	62	1	4	2 - 3	
22		-	-	-	-	-	-	-	-	-		M
23	0:09	2	5	5	51	7	56	126	2	11	2	
24	3:13	1	6	4	54	5	60	110	1	9	3 - 4	
25	0:29	1	10	4	55	5	65	115	1	9	4	
26		-	-	-	-	-	-	-	-	-		M
27		-	-	-	-	-	-	-	-	-		M
28	0:54	1	17	4	18	5	35	85	3	17	3	
29	1:02	1	19	2	9	3	28	58	1	19	3	
30		-	-	-	-	-	-	-	-	-		M
31	1:00	2	15	2	9	4	24	64	2	15	2	
Sum		179		544		723			194			
Mean		9.0		27.2		36.2			9.7			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
0.44	0.17
0.61	

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1987 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	2h38m	3	24	1	7	4	31	71	2	19	3	
3	2:39	3	14	1	5	4	19	59	2	10	3	
4	3:50	1	8	1	9	2	17	37	0	0	2	
5		-	-	-	-	-	-	-	-	-		C-R
6	4:10	1	2	1	5	2	7	27	1	3	1	
7	4:05	0	0	1	35	1	35	45	1	22	3	
8	3:10	0	0	1	28	1	28	38	0	0	1	
9	1:42	0	0	1	23	1	23	33	0	0	2	
10		-	-	-	-	-	-	-	-	-		M
11	0:02	2	4	2	23	4	27	67	0	0	3	
12	3:04	1	3	3	19	4	22	62	1	3	3	
13	2:26	0	0	3	26	3	26	56	0	0	3	
14	1:28	0	0	3	33	3	33	63	0	0	3	
15	2:02	0	0	3	32	3	32	62	0	0	2 - 3	
16	1:46	0	0	3	31	3	31	61	1	1	3	
17	0:50	0	0	3	30	3	30	60	0	0	3	
18		-	-	-	-	-	-	-	-	-		M
19	3:40	0	0	3	23	3	23	53	1	14	1	
20	2:04	0	0	4	29	4	29	69	1	3	3 - 4	
21	3:04	0	0	3	34	3	34	64	0	0	3	
22	5:25	1	3	2	18	3	21	51	0	0	2	
23		-	-	-	-	-	-	-	-	-		R-C
24		-	-	-	-	-	-	-	-	-		C
25		-	-	-	-	-	-	-	-	-		C
26	3:14	2	22	0	0	2	22	42	1	8	3	
27	0:29	2	18	0	0	2	18	38	1	7	3	
28		-	-	-	-	-	-	-	-	-		C
29	1:11	1	1	2	5	3	6	36	2	3	4 - 5	
30	0:04	0	0	1	2	1	2	12	0	0	3	
31	1:00	0	0	1	2	1	2	12	0	0	1	
Sum		269		849		1118			233			
Mean		11.7		36.9		48.6			10.1			

Days 23

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
0.95	0.00

0.95



MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1987 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	1h50m	0	0	4	10	4	10	50	1	2	4	
2	3:10	0	0	2	10	2	10	30	0	0	2	
3		-	-	-	-	-	-	-	-	-	-	C
4		-	-	-	-	-	-	-	-	-	-	C
5		-	-	-	-	-	-	-	-	-	-	M
6	2:01	0	0	2	36	2	36	56	1	8	4	
7	4:40	0	0	3	41	3	41	71	1	29	2	
8	2:53	1	1	3	50	4	51	91	1	41	3 - 4	
9	5:03	1	5	3	41	4	46	86	0	0	2 - 3	
10	3:28	1	3	3	36	4	39	79	0	0	4	
11		-	-	-	-	-	-	-	-	-	-	R-C
12		-	-	-	-	-	-	-	-	-	-	C
13		-	-	-	-	-	-	-	-	-	-	C
14	1:29	0	0	2	12	2	12	32	0	0	2 - 3	
15	0:10	1	1	1	7	2	8	28	1	1	3 - 4	
16		-	-	-	-	-	-	-	-	-	-	C
17		-	-	-	-	-	-	-	-	-	-	C
18	0:28	1	2	1	8	2	10	30	0	0	3	
19	1:47	1	2	2	13	3	15	45	0	0	3	
20	1:06	1	2	2	10	3	12	42	0	0	2 - 3	
21	2:48	1	2	2	10	3	12	42	1	2	2 - 3	
22	3:50	1	2	1	4	2	6	26	1	2	2	
23		-	-	-	-	-	-	-	-	-	-	M
24	2:30	1	2	1	2	2	4	24	1	2	1 - 2	
25		-	-	-	-	-	-	-	-	-	-	C
26	- 17	1	3	0	0	1	3	13	0	0	2	
27	0:16	1	2	0	0	1	2	12	0	0	2	
28		-	-	-	-	-	-	-	-	-	-	C
29	4:00	2	4	1	2	3	6	36	0	0	4 - 5	
30		-	-	-	-	-	-	-	-	-	-	C
Sum		171		622		793			167			
Mean		9.5		34.6		44.1			9.3			

Days 18

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
<u>1.71</u>	<u>0.06</u>

1.77

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1987 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	0h56m	1	16	2	3	3	19	49	0	0	3 - 4	
3	0:58	1	14	0	0	1	14	24	0	0	2	
4	4:17	2	29	0	0	2	29	49	1	19	2 - 3	
5	3:12	3	32	1	1	4	33	73	1	26	4	
6		-	-	-	-	-	-	-	-	-		C
7	3:09	2	19	0	0	2	19	39	2	12	3	
8	2:27	3	17	1	3	4	20	60	2	7	2 - 3	
9	3:52	3	8	1	2	4	10	50	1	2	2	
10	3:50	2	10	1	4	3	14	44	1	1	2	
11		-	-	-	-	-	-	-	-	-		C
12	4:02	1	15	2	7	3	22	52	0	0	2 - 3	
13	2:31	1	21	3	13	4	34	74	0	0	3	
14	2:15	1	23	3	23	4	46	86	2	22	3	naked eye=lc
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		C
17	3:05	1	22	3	19	4	41	81	1	22	1	
18	3:29	1	20	3	21	4	41	81	1	9	2	
19		-	-	-	-	-	-	-	-	-		C
20		-	-	-	-	-	-	-	-	-		C
21	0:00	2	5	4	18	6	23	83	1	1	2 - 3	
22	3:48	0	0	3	19	3	19	49	0	0	2	
23	2:57	0	0	2	14	2	14	34	0	0	2	
24		-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-		M
26		-	-	-	-	-	-	-	-	-		C
27	3:09	2	20	1	2	3	22	52	1	5	2	
28	4:01	1	37	2	16	3	53	83	1	9	2 - 3	
29	3:37	1	32	2	25	3	57	87	1	17	2 - 3	
30	2:10	1	30	2	18	3	48	78	2	25	2	
31		-	-	-	-	-	-	-	-	-		C
Sum		660		568		1228			357			
Mean		33.0		28.4		61.4			17.9			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
1.00	0.06

1.06

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1987 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	5h09m	1	19	2	7	3	26	56	2	12	2	
2		-	-	-	-	-	-	-	-	-		R-C
3		-	-	-	-	-	-	-	-	-		R
4		-	-	-	-	-	-	-	-	-		R
5		-	-	-	-	-	-	-	-	-		M
6	2:58	2	3	2	8	4	11	51	0	0	3	
7	1:01	2	6	1	5	3	11	41	2	7	2 - 3	
8	2:58	1	2	3	14	4	16	56	3	13	4	
9	4:12	2	6	2	8	4	14	54	3	12	3	
10	3:13	2	3	1	2	3	5	35	1	1	2 - 3	
11	3:50	2	5	1	3	3	8	38	0	0	4 - 5	
12		-	-	-	-	-	-	-	-	-		C
13		-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-		C
15	2:54	0	0	1	19	1	19	29	0	0	2 - 3	
16	1:17	0	0	1	18	1	18	28	0	0	3	naked eye=lc
17	1:11	0	0	2	26	2	26	46	1	17	3	naked eye=lb
18	2:02	0	0	4	31	4	31	71	3	28	3	naked eye=lc
19	1:45	0	0	3	34	3	34	64	1	19	2 - 3	naked eye=lc
20	2:31	0	0	2	34	2	34	54	0	0	2 - 3	
21	2:32	0	0	2	45	2	45	65	1	20	2	
22	1:48	0	0	3	53	3	53	83	1	36	2	
23	2:42	1	1	4	53	5	54	104	1	36	2	
24	1:47	0	0	4	41	4	41	81	1	21	2	
25	2:58	0	0	3	30	3	30	60	0	0	2	
26	2:00	0	0	3	21	3	21	51	1	2	2	
27	3:45	0	0	2	14	2	14	34	1	5	1 - 2	
28		-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-		C
30	2:12	0	0	0	0	0	0	0	0	0	2	

Sum                    175            926                    1101            449

Mean                    8.3            44.1                    52.4            21.4

Days 21

8cm Refractor X67 Projection 15cm

POLAR FACULAE

<u>N</u>	<u>S</u>
<u>0.30</u>	<u>0.10</u>
<u>0.40</u>	



MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1987 Observer - H. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f				Cent.		Seeing	Remarks
		g	f	g	f	g	f	R	g	f	5		
1	2h27m	0	0	1	7	1	7	17	1	7	3		
2	2:08	0	0	1	5	1	5	15	0	0	2		
3	2:50	0	0	1	3	1	3	13	0	0	3		
4		-	-	-	-	-	-	-	-	-			
5		-	-	-	-	-	-	-	-	-		M	
6		-	-	-	-	-	-	-	-	-		M	
7	2:47	1	2	1	12	2	14	34	2	14	3	S	
8	1:30	1	3	1	15	2	18	38	1	8	2		
9		-	-	-	-	-	-	-	-	-		C-R	
10		-	-	-	-	-	-	-	-	-		C	
11		-	-	-	-	-	-	-	-	-		C	
12	4:19	0	0	1	2	1	2	12	0	0	2		
13		-	-	-	-	-	-	-	-	-		S	
14	1:55	0	0	2	4	2	4	24	0	0	4 - 5		
15	2:43	0	0	3	11	3	11	41	1	3	2		
16	4:05	0	0	2	25	2	25	45	1	9	2		
17	3:03	0	0	3	11	3	11	41	1	4	1 - 2		
18	0:48	1	2	2	8	3	10	40	0	0	3		
19	1:29	1	3	3	7	4	10	50	0	0	3		
20	1:09	1	1	2	6	3	7	37	0	0	3		
21	2:24	0	0	1	2	1	2	12	0	0	1		
22	2:24	0	0	1	2	1	2	12	0	0	2		
23	0:30	0	0	2	4	2	4	24	0	0	2 - 3		
24	3:09	0	0	1	2	1	2	12	0	0	2		
25	2:15	0	0	3	6	3	6	36	1	2	2		
26	1:51	1	4	2	14	3	18	48	1	4	3		
27	0:08	0	0	1	16	1	16	26	0	0	2		
28	2:10	0	0	1	27	1	27	37	0	0	2		
29	1:09	0	0	1	23	1	23	33	0	0	4		
30	3:52	0	0	2	17	2	17	37	0	0	1		
31	2:46	0	0	2	18	2	18	38	1	3	2		
Sum			75		647			722		154			
Mean			3.1		27.0			30.1		6.4			

Days 24

8cm Refractor X67 Projection 15cm

POLAR FACULAE

N	S
0.30	0.26

0.57