

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1978 Observer - K.Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f		Facula		Cent.		Seeing 5 - 1	Remarks	
		g	f	g	f	g	f	W	W	g	f			
1	4h32m	2	36	2	29	4	65	105	5	0	2	43	1	84
2	3:50	3	35	2	28	5	63	113	4	3	2	20	1	88
3	3:14	5	45	3	29	8	74	154	4	2	2	28	1 - 2	102
4	3:00	6	55	2	25	8	80	160	7	3	2	25	2	102
5	3:39	6	43	2	15	8	58	138	2	1	2	10	1	73
6	1:44	5	29	3	26	8	55	135	2	5	3	24	3	69
7	2:38	1	5	2	19	3	24	54	1	4	0	0	2 - 3	42
8		-	-	-	-	-	-	-	-	-	-	-		
9		-	-	-	-	-	-	-	-	-	-	-		C
10	1:08	2	4	0	0	2	4	24	3	6	0	0	3	15
11	1:17	1	7	0	0	1	7	17	2	4	1	3	3	18
12	1:14	1	14	1	1	2	15	35	4	3	1	14	3	26
13	1:38	1	20	3	5	4	25	65	3	3	3	24	3	26
14	2:49	1	16	1	4	2	20	40	2	2	1	13	2	36
15	2:45	1	10	3	8	4	18	58	3	3	0	0	2	30
16	3:39	1	6	2	5	3	11	41	1	3	1	1	1 - 2	23
17	2:17	1	3	1	7	2	10	30	2	2	1	7	1 - 2	24
18		-	-	-	-	-	-	-	-	-	-	-		C
19	3:21	0	0	1	1	1	1	11	1	3	1	1	1	8
20	1:14	0	0	1	3	1	3	13	1	3	0	0	2	7
21	4:28	2	3	1	2	3	5	35	1	3	0	0	2	20
22	3:43	1	2	1	11	2	13	33	1	1	0	0	1	30
23	3:11	2	4	2	14	4	18	58	2	2	0	0	2	43
24		-	-	-	-	-	-	-	-	-	-	-		C
25	1:39	2	25	1	2	3	27	57	3	1	1	22	2	32
26		-	-	-	-	-	-	-	-	-	-	-		C
27	2:07	3	24	3	17	6	41	101	3	0	3	23	3	69
28		-	-	-	-	-	-	-	-	-	-	-		C
29	5:26	5	28	3	31	8	59	139	4	1	0	0	2	90
30		-	-	-	-	-	-	-	-	-	-	-		C
31	0:24	6	38	4	48	10	86	186	5	2	4	26	2 - 3	118
Sum		1032		770		1802			584			1.175		
Mean		43.0		32.1		75.1			24.3					

$K = 0.652$

Days 24 8cm refractor X57 Projection 15cm

7 8 9 10 11 12 1A 2 3 4 5 6 7

$N18251 = 58.5$

$S 9043 = 29.0$

$27294 \div 312 = 87.5$

(1) MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1978 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	g	f			
1		-	-	-	-	-	-	-	-	-		
2	2h25m	5	51	5	51	10	102	202	7	86	2	C
3		-	-	-	-	-	-	-	-	-		M
4	0:54	7	82	4	53	11	135	245	2	27	3	
5	0:44	6	62	4	26	10	88	188	0	0	1	
6	5:43	4	56	5	21	9	77	167	2	10	1	
7	0:44	6	64	5	19	11	83	193	2	28	2	
8	4:56	4	67	3	4	7	71	141	3	32	2	
9	2:52	4	62	2	4	6	66	126	4	16	1 - 2	naked eye=1b
10		-	-	-	-	-	-	-	-	-		r
11	1:04	4	83	2	4	6	87	147	1	43	1 - 2	naked eye=2b
12		-	-	-	-	-	-	-	-	-		C
13	2:23	4	86	4	17	8	103	183	5	78	3	naked eye=2b
14	4:16	4	66	3	7	7	73	143	2	3	1 - 2	naked eye=1b
15	5:53	2	44	2	6	4	50	90	1	2	1	
16	2:08	3	47	2	4	5	51	101	1	3	2	
17	0:45	4	40	1	2	5	42	92	0	0	3	
18	1:05	5	36	0	0	5	36	86	0	0	2	
19	4:10	4	38	1	2	5	40	90	0	0	2	
20	1:27	4	41	0	0	4	41	81	0	0	2	
21	2:30	4	44	1	2	5	46	96	1	16	3	
22	0:45	5	48	1	3	6	51	111	2	18	2	
23	2:52	5	48	2	5	7	53	123	2	8	1 - 2	
24	1:44	5	50	3	8	8	58	138	1	27	2	
25	4:19	5	45	3	13	8	58	138	2	36	2	
26	1:07	6	44	4	16	10	60	160	1	10	2	
27	1:30	4	44	3	12	7	56	126	3	12	3	
28		-	-	-	-	-	-	-	-	-		S
Sum		2288		879		3167			875			
Mean		99.5		38.2		137.7			38.0			

k=0.625

Days 23 8cm Refractor X67 Projection 15cm

8 9 10 11 12 1 2 3 4 5 6 7 8

$28870 \div 308 = 92.1$ $118590 = 60.4$
 $89780 = 31.8$

(1) MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1978 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	g	f			
1	3h32m	4	31	6	24	10	55	155	7	27	2	93
2	1:27	6	31	5	14	11	45	155	4	12	2	83
3	5:23	5	34	3	5	8	39	119	2	4	1 - 2	95
4		-	-	-	-	-	-	-	-	-	R	
5	2:03	5	33	4	9	9	42	132	1	3	1 - 2	76
6	0:12	5	49	2	5	7	54	124	3	20	2	67
7	0:06	5	58	1	4	6	62	122	3	42	4	90
8	0:50	6	64	1	1	7	65	135	2	39	3	99
9	0:40	5	65	1	5	6	70	130	2	15	2	85
10		-	-	-	-	-	-	-	-	-	R	
11	2:46	6	40	2	23	8	63	143	2	8	2	neked eye=lc 85
12	5:47	4	25	2	31	6	56	116	3	24	1	neked eye=lc 78
13	0:07	6	33	3	43	9	76	166	3	36	4	neked eye=lb 65
14	0:23	4	26	2	29	6	55	115	3	27	3	neked eye=lc 72
15	5:22	4	22	2	23	6	45	105	3	25	1 - 2	neked eye=lc 72
16	0:12	4	25	3	28	7	53	123	2	23	3	70
17	0:08	4	22	3	28	7	50	120	1	22	3	66
18	0:31	4	15	3	26	7	41	111	1	20	2	72
19	3:55	4	25	2	12	6	37	97	1	11	2 - 3	64
20	0:03	4	28	1	13	5	41	91	1	21	3	57
21		-	-	-	-	-	-	-	-	-	C	
22		-	-	-	-	-	-	-	-	-	C	
23	0:20	6	18	4	19	10	37	137	2	6	2 - 3	85
24	0:18	6	21	4	16	10	37	137	2	5	3	82
25	0:38	5	30	5	17	10	47	147	3	7	2 - 3	70
26	0:11	4	15	3	16	7	31	101	4	18	2	53
27	0:03	3	12	2	13	5	25	75	4	23	1 - 2	50
28		-	-	-	-	-	-	-	-	-	R	
29	1:21	3	4	4	13	7	17	87	4	6	2	48
30	0:17	3	4	4	9	7	13	83	1	2	2	44
31	4:25	2	7	4	6	6	13	73	1	1	2	70
Sum		1907		1192		3099		1097				1875
Mean		73.3		45.8		119.2		42.2				K=0.605

9 10 11 12 1 2 3A 4 5 6 7 8 9
 $30882 \div 306 = 100.9$ $N 19979 = 65.3$
 $S 10903 = 35.6$

Days 26 8cm Refractor X67 Projection 15cm

(1) MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1978 Observer -- K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f		Cent.		Seeing		Remarks
		g	f	g	f	g	f	g	f	5	1	
1	1h10m	2	8	3	10	5	18	68	0	0	2	
2		-	-	-	-	-	-	-	-	-	-	C
3	5:43	5	25	2	9	7	34	104	2	9	1	
4	0:04	6	28	3	7	9	35	125	2	5	4	
5	0:20	4	40	4	9	8	49	129	2	4	2 - 3	
6		-	-	-	-	-	-	-	-	-	-	R
7	0:18	6	50	3	18	9	68	158	2	34	2 - 3	
8	0:19	6	55	3	21	9	76	166	3	50	2	
9	0:22	8	55	5	26	13	81	211	6	22	3	
10	1:38	8	58	4	29	12	87	207	6	21	2	
11	1:32	6	49	5	38	11	87	197	6	27	2	
12		-	-	-	-	-	-	-	-	-	-	R
13		-	-	-	-	-	-	-	-	-	-	R
14	0:17	3	47	6	27	9	74	164	4	46	3	
15	1:26	4	50	4	15	8	65	145	4	59	4	
16	3:19	4	47	3	6	7	53	123	3	38	2	
17		-	-	-	-	-	-	-	-	-	-	M
18		-	-	-	-	-	-	-	-	-	-	C
19	0:02	6	38	5	22	11	60	170	0	0	3	
20	0:44	5	41	4	18	9	59	149	1	5	2	
21	4:04	5	49	4	19	9	68	158	3	26	1 - 2	
22	0:02	5	67	4	17	9	84	174	5	27	4	
23	3:40	5	64	5	15	10	79	179	7	54	1 - 2	
24		-	-	-	-	-	-	-	-	-	-	
25	1:57	6	73	5	23	11	96	206	3	22	1 - 2	
26	0:42	6	69	4	17	10	86	186	1	4	2	
27	2:14	6	68	2	6	8	74	154	1	2	2 - 3	
28	1:13	5	71	1	2	6	73	133	0	0	2	
29		-	-	-	-	-	-	-	-	-	-	R
30		-	-	-	-	-	-	-	-	-	-	C
Sum		2162		1144		3306		1065			2037	
Mean		103.0		54.5		157.4		38.0			k=0.616	

10 11 12 1 2 3 4A 5 6 7 8 9 10

Days 21 8cm Refractor X67 Projection 15cm

$33376 \div 308 = 108.4$ $N 20637 = 67.0$
 $S 12739 = 41.4$

(1) MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1978 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	g	f			
1	1h55m	3	93	2	12	5	105	155	1	69	2 - 3	neked eye=lb
2	0:26	2	91	3	16	5	107	157	2	83	2	neked eye=lc
3	1:05	3	89	2	17	5	106	156	2	33	3	neked eye=lc
4	0:09	4	66	1	15	5	81	131	1	7	2	
5	4:04	3	55	1	16	4	71	111	0	0	1 - 2	
6		-	-	-	-	-	-	-	-	-		C
7		-	-	-	-	-	-	-	-	-		C
8	5:07	4	33	1	12	5	45	95	2	18	2	
9	4:24	4	21	4	19	8	40	120	3	18	2	
10		-	-	-	-	-	-	-	-	-		C
11		-	-	-	-	-	-	-	-	-		C
12	0:02	4	22	3	16	7	38	108	2	18	3 - 4	
13	0:09	5	21	2	22	7	43	113	3	21	3	
14	0:11	4	26	3	30	7	56	126	2	25	2 - 3	
15	0:14	3	27	3	30	6	57	117	1	22	2 - 3	
16	0:24	4	30	3	24	7	54	124	2	26	2	
17		-	-	-	-	-	-	-	-	-		C
18		-	-	-	-	-	-	-	-	-		R
19		-	-	-	-	-	-	-	-	-		M
20	0:10	4	15	3	35	7	50	120	4	32	4	
21	0:04	4	8	5	31	9	39	129	3	12	3	
22	0:40	3	12	4	18	7	30	100	0	0	2	
23	3:25	3	31	3	13	6	44	104	1	3	2	
24	0:10	4	35	3	12	7	47	117	2	9	2 - 3	
25	0:29	4	45	3	12	7	57	127	2	6	3	
26	0:41	6	64	2	4	8	68	148	3	26	3	neked eye=lc
27	4:08	5	93	2	4	7	97	167	4	68	3	neked eye=lc
28	3:49	4	66	1	7	5	73	123	4	58	2	neked eye=lc
29		-	-	-	-	-	-	-	-	-		C
30		-	-	-	-	-	-	-	-	-		M
31	0:34	5	50	5	18	10	68	168	4	31	2	
Sum		1843		973		2816		1065				1736
Mean		83.8		44.2		128.0		48.4				K=0.616

Days 22 3cm Refractor X67 Projection 15cm

11 12 1 2 3 4 5A 6 7 8 9 10 11

~~33893~~

34593 ÷ 305 = 113.4

~~420435~~

514158 = 67.0

514158 = 46.4

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1978 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	g	f			
1	0h24m	5	45	6	28	11	73	183	4	28	3	
2	1:13	4	49	4	21	8	70	150	2	21	2	
3	3:28	5	32	5	23	10	55	155	3	14	2	
4		-	-	-	-	-	-	-	-	-	-	R
5	0:37	2	10	2	20	4	30	70	1	3	2	
6	1:51	2	8	3	15	5	23	73	0	0	2	
7	3:34	1	2	3	6	4	8	48	1	2	3	
8	2:26	2	2	3	8	5	10	60	2	2	2	
9	0:02	2	4	2	3	4	7	47	1	2	3	
10	4:03	2	8	1	1	3	9	39	0	0	3	
11		-	-	-	-	-	-	-	-	-	-	C - R
12	4:34	5	27	1	5	6	32	92	4	24	3	
13	4:28	5	29	2	5	7	34	104	3	24	3	
14	0:08	5	36	1	3	6	39	99	2	17	3 - 4	
15	0:04	7	38	0	0	7	38	108	4	7	5	
16		-	-	-	-	-	-	-	-	-	-	R
17	1:25	6	33	1	9	7	42	112	4	19	2	
18	3:28	8	54	1	14	9	68	158	4	25	2	
19		-	-	-	-	-	-	-	-	-	-	C
20	0:00	10	40	2	16	12	56	176	4	21	2 - 3	
21	3:54	8	61	4	23	12	84	204	4	21	1	
22		-	-	-	-	-	-	-	-	-	-	R
23		-	-	-	-	-	-	-	-	-	-	R
24		-	-	-	-	-	-	-	-	-	-	C
25		-	-	-	-	-	-	-	-	-	-	R
26		-	-	-	-	-	-	-	-	-	-	M
27		-	-	-	-	-	-	-	-	-	-	R
28	0:44	6	83	2	49	8	132	212	5	77	2	
29	1:49	7	49	2	37	9	86	176	3	23	2	
30	0:02	9	51	3	28	12	79	199	2	10	2	
Sum		1671		794		2465			870			
Mean		83.6		39.7		123.3			43.5			1609

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULA

N	S
0.24	0.59
0.82	

$K=0.653$

12 1 2 3 4 5 6A 7 8 9 10 11 12

$38319 \div 307 = 124.8$ $N 21594 = 70.3$
 $S 16725 = 54.5$

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1978 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total		10g+f		Cent.		Seeing	Remarks
		g	f	g	f	g	f	g	f	g	f		
1		-	-	-	-	-	-	-	-	-	-		C
2	0h18m	3	17	2	8	5	25	75	1	1	3	61	
3	2:49	3	17	2	5	5	22	72	2	10	4	47	
4	2:49	2	19	2	6	4	25	65	4	22	4 - 5	34	
5	1:47	3	21	1	14	4	35	75	1	4	2	54	
6	2:01	2	11	1	17	3	28	58	1	4	3	57	
7	0:11	4	16	4	26	8	42	122	3	9	4	84	
8	1:58	4	13	4	38	8	51	131	2	14	5	105	
9	3:56	3	19	5	32	8	51	131	1	13	3	108	
10	2:38	5	27	5	30	10	57	157	1	18	3	115	
11	2:53	5	53	3	33	8	86	166	2	12	2	127	neked eye=1b
12		-	-	-	-	-	-	-	-	-			R
13	2:58	6	68	2	17	8	85	165	3	52	3	114	neked eye=1b
14	2:05	6	95	2	10	8	105	185	2	73	3	109	neked eye=1a
15	0:34	4	69	3	11	7	80	150	2	65	2	102	neked eye=1a
16	3:13	6	67	2	8	8	75	155	4	63	3	110	neked eye=1b
17	2:56	7	73	1	5	8	78	158	6	51	2 - 3	98	neked eye=1c
18	3:04	7	52	1	5	8	57	137	7	32	3	78	
19		-	-	-	-	-	-	-	-	-			C
20	2:59	4	18	2	6	6	24	84	2	5	2	76	
21	2:27	4	18	4	9	8	27	107	5	11	5	77	
22	3:15	3	9	3	8	6	17	77	1	1	2 - 3	48	
23	3:23	3	13	1	1	4	14	54	1	1	2	33	
24	0:56	4	11	0	0	4	11	51	1	1	3	38	
25	2:31	1	6	2	2	3	8	38	1	6	2	30	
26	0:39	1	1	0	0	1	1	11	1	1	3	13	
27	2:35	0	0	0	0	0	0	0	0	0	3	21	
28	0:27	4	12	0	0	4	12	52	1	6	3	31	
29	1:13	4	10	1	1	5	11	61	0	0	3	48	
30	1:36	3	9	1	4	4	13	53	0	0	3	35	
31	3:47	3	10	1	6	4	16	56	0	0	2 - 3	36	
Sum		1794		852		2646		1025				1889	
Mean		64.1		30.4		94.5		36.6					K=0.714

Days 28

8cm Refractor X67 Projection 15cm

POLAR FACULA

N S

0.86 0.11

0.96

1 2 3 4 5 6 7 8 9 10 11 12 1

$43162 \div 308 = 140.1$ ~~$N 20867$~~ $N 23864 = 77.5$

$S 19298 = 62.7$

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1978 Observer - K. Fujimori Suwa City, Nagano

Date	Time	N		S		Total 10g+f			Cent.		Seeing		Remarks	
		U. T.	g	f	g	f	g	f	R	g	f	5		1
1	0h14m		2	8	1	7	3	15	45	1	2		3	
2	4:24		4	10	2	13	6	23	83	4	10		2	
3	4:14		2	8	1	7	3	15	45	3	12		2	
4	0:50		3	8	1	11	4	19	59	3	15		3	
5	3:41		3	5	4	19	7	24	94	1	2		3	
6	3:53		3	6	2	18	5	24	74	0	0		3	
7	1:43		2	3	2	32	4	35	75	0	0		2	
8			-	-	-	-	-	-	-	-	-		-	
9	0:50		1	1	2	44	3	45	75	0	0		2	C
10	3:59		3	11	2	41	5	52	102	4	14		3	
11			-	-	-	-	-	-	-	-	-		-	M
12	0:08		5	13	1	25	4	38	78	3	13		4	
13	0:27		5	15	3	24	8	39	119	3	6		4 - 5	
14	0:38		5	16	3	27	8	43	123	2	7		2	
15	0:55		3	17	3	20	6	37	97	1	3		2 - 3	
16	2:27		3	8	2	8	5	16	66	1	1		2	
17			-	-	-	-	-	-	-	-	-		-	C
18	0:00		2	17	1	4	3	21	51	0	0		3	
19	2:19		2	9	1	7	3	16	46	0	0		3 - 4	
20			-	-	-	-	-	-	-	-	-		-	M
21			-	-	-	-	-	-	-	-	-		-	M
22	0:01		0	0	3	11	3	11	41	1	9		3	
23	0:04		1	5	2	10	3	15	45	1	5		3	
24	0:58		2	5	2	13	4	18	58	1	4		3	
25	0:14		3	6	3	17	6	23	83	1	4		2	
26	0:06		1	1	3	12	4	13	53	1	3		2 - 3	
27	3:44		2	12	3	11	5	23	73	2	10		2 - 3	
28	0:55		3	17	2	7	5	24	74	2	6		2	
29	0:06		3	23	2	5	5	28	78	0	0		3	
30	0:34		5	31	3	7	8	36	118	2	10		2 - 3	
31	0:06		7	35	2	14	9	49	139	3	9		4	

Sum 1020 974 1994 545 1536

Mean 39.2 37.5 76.7 21.0 $k=0.770$

Days 26

8cm Refractor X67 Projection 15cm

POLAR FACULA	
N	S
1.65	0.04

2 3 4 5 6 7 8 9 10 11 12 1 2

1.69

$46099 \div 307 = 150.2$ $N25272 = 82.3$
 $S20827 = 67.8$

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1976 Observer - K. Fujimori Sana 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	4h07m	3	48	2	22	5	70	120	2	24	2 - 2	
2	1:37	5	60	4	44	9	104	194	3	46	2	
3		-	-	-	-	-	-	-	-	-		M
4		-	-	-	-	-	-	-	-	-		R
5		-	-	-	-	-	-	-	-	-		R
6	2:14	4	39	6	73	10	112	212	3	37	2	
7	0:58	4	40	4	92	8	132	212	1	2	3	
8	0:32	4	38	4	79	8	117	197	0	0	3	
9	0:41	5	32	2	50	7	82	152	1	2	2	
10	5:22	4	21	2	29	6	50	110	2	5	1	
11		-	-	-	-	-	-	-	-	-		C
12		-	-	-	-	-	-	-	-	-		C - R
13	4:00	7	44	0	0	7	44	114	3	25	2	
14		-	-	-	-	-	-	-	-	-		R - C
15	2:54	7	52	2	14	9	66	156	2	7	2	
16	5:19	8	61	4	20	12	81	201	4	8	1 - 2	
17	0:17	7	74	3	21	10	95	195	5	26	3	naked eye=lc
18	0:06	9	59	3	25	12	84	204	5	24	3 - 4	naked eye=lc
19	0:05	7	62	4	21	11	83	193	4	47	2	naked eye=lb
20	0:07	7	80	4	28	11	108	218	3	60	4	naked eye=lc
21		-	-	-	-	-	-	-	-	-		C
22	1:03	8	88	2	32	10	120	220	5	41	2	
23		-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-		M
25	0:12	8	47	7	44	15	91	241	5	33	3	
26	5:27	6	24	7	34	13	58	188	3	12	2	
27	5:30	5	20	6	14	11	34	144	4	16	1	
28		-	-	-	-	-	-	-	-	-		R
29	3:21	5	24	4	11	9	35	125	3	8	1	
30	3:46	4	24	4	21	8	45	125	3	15	3	
Sum		2107		1414				3521		1048		

Mean 105.4 70.7 176.1 52.4

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULA

2746

N	S
2.00	0.00
2.00	

K=0.780

3 4 5 6 7 8 9A 10 11 12 1 2 3

$47529 \div 399 = 119.12$
 $N 25234 = 81.7$
 $S 22295 = 72.2$

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1978 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	2h03m	4	15	4	25	8	40	120	3	14	2	
2	2:24	4	18	3	18	7	36	106	1	5	2	
3	2:33	3	7	6	28	9	35	125	3	9	2	
4	0:19	4	9	5	31	9	40	130	4	25	3	
5		-	-	-	-	-	-	-	-	-	-	R
6	5:03	4	9	1	13	5	22	72	2	16	1	
7	3:21	3	8	2	17	5	25	75	2	18	1 - 2	
8	0:18	3	9	5	29	8	38	118	3	10	2 - 3	
9	0:27	4	15	6	48	10	63	163	2	12	2 - 3	
10	4:54	4	21	7	46	11	67	177	2	14	2	
11	4:28	5	23	8	58	13	81	211	3	13	2	
12	2:09	5	20	9	64	14	84	224	4	7	2	
13		-	-	-	-	-	-	-	-	-	-	M
14	0:13	7	42	7	77	14	119	259	5	73	2 - 3	
15		-	-	-	-	-	-	-	-	-	-	C
16	1:11	7	47	7	70	14	117	257	6	47	3	
17	1:22	6	36	6	45	12	82	202	5	33	2 - 3	
18	2:23	8	45	5	39	13	84	214	4	16	4	
19	3:11	7	56	5	37	12	93	213	3	18	2	
20	4:10	7	51	5	42	12	93	213	4	22	2 - 3	
21	2:08	7	40	4	41	11	81	191	5	19	2	
22	1:28	7	41	4	25	11	66	176	4	16	2	
23	4:25	9	45	4	14	13	59	189	4	32	4	
24		-	-	-	-	-	-	-	-	-	-	C
25	3:34	5	22	4	9	9	31	121	3	14	1	
26	3:33	5	23	4	11	9	34	124	3	12	2	
27		-	-	-	-	-	-	-	-	-	-	C - R
28		-	-	-	-	-	-	-	-	-	-	R
29		-	-	-	-	-	-	-	-	-	-	R
30	2:37	4	25	9	26	13	51	181	5	30	2 - 3	
31	1:49	5	19	6	24	11	43	153	2	7	3 - 4	

Sum 1916 2098 4014 1302 2959

Mean 79.8 87.4 167.3 54.3

Days 24 POLAR FACULA $k=0.737$

8cm Refractor X67 Projection 15cm N S

0.76 0.00

0.76

4 5 6 7 8 9 10 11 12 1 2 3 4

$47130 \div 304 = 155.0$ $N24987 = 82.2$

$S22143 = 72.8$

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1978 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	4h04m	6	12	6	40	12	52	172	4	32	3 - 4	
2	3:14	3	11	6	43	9	54	144	3	22	3 - 4	
3	2:34	5	13	7	68	12	81	201	6	43	3	
4	3:39	3	14	7	67	10	81	181	3	34	2 - 3	
5	2:14	3	8	5	62	8	70	150	2	33	2	
6	3:45	1	6	6	78	7	84	154	3	31	2	
7		-	-	-	-	-	-	-	-	-		M
8	3:57	2	16	5	60	7	76	146	2	53	2	neked eye=2c
9	3:22	2	25	5	56	7	81	151	3	75	2	neked eye=1c
10	4:43	4	35	4	53	8	88	168	4	44	2	neked eye=1c
11		-	-	-	-	-	-	-	-	-		C
12		-	-	-	-	-	-	-	-	-		C
13		-	-	-	-	-	-	-	-	-		R
14	3:14	5	36	2	4	7	40	110	4	14	2	
15	1:39	3	25	1	4	4	29	69	1	9	1 - 2	
16	2:29	4	22	4	9	8	31	111	3	13	2 - 3	
17	4:59	3	14	6	18	9	32	122	2	6	1 - 2	
18	4:21	2	10	7	22	9	32	122	1	1	2 - 3	
19	3:14	3	14	6	17	9	31	121	0	0	2	
20	2:49	3	14	4	12	7	26	96	1	3	2	
21	3:43	1	5	3	10	4	15	55	1	7	2	
22	1:58	3	11	6	22	9	33	123	4	20	3	
23	2:48	3	4	3	14	6	18	78	3	13	2	
24	3:00	1	3	3	16	4	19	59	2	8	2	
25	3:01	3	8	3	9	6	17	77	1	1	2	
26		-	-	-	-	-	-	-	-	-		M
27		-	-	-	-	-	-	-	-	-		R
28	1:59	7	50	5	16	12	66	186	4	23	2	
29	2:07	7	42	3	13	10	55	155	4	17	1 - 2	
30	2:34	6	28	4	19	10	47	147	5	20	2	

Sum 1256 1842 3098 1182 2258

Mean 52.3 76.8 129.1 49.3 k=0.729

Days 24 POLAR FACULA

8cm Refractor X67 Projection 15cm N S
0.38 0.04

5 6 7 8 9 10 11 12 1 2 3 4 5

48010 ÷ 308 = 155.9
~~11504~~
 N 25392 = 82.4
 S 22618 = 73.4

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1978 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	2h08m	7	23	3	36	10	59	159	4	11	4	110
2		-	-	-	-	-	-	-	-	-		R
3	3:00	5	14	5	47	10	61	161	6	39	1	2 117
4	1:18	5	13	4	69	9	82	172	5	51	1	2 108
5	0:43	5	11	6	91	11	102	212	3	51	3	4 104
6	0:10	6	10	6	79	12	89	209	6	37	4	122
7	4:35	7	11	7	73	14	84	224	7	25	3	132
8	2:38	5	25	7	98	12	123	243	4	41	4	142
9	2:33	4	28	8	77	12	105	225	3	32	2	3 152
10	0:00	3	37	6	61	9	98	188	2	24	1	138
11		-	-	-	-	-	-	-	-	-		
12	1:06	3	65	7	128	10	193	293	4	139	2	3 158 C
13	1:41	4	57	7	100	11	157	267	5	125	4	5 165 " =lc, 1b
14	3:24	2	56	8	99	10	155	255	7	101	4	150 " =1b
15	3:58	2	29	7	63	9	92	182	5	37	2	140 " =1b
16	3:44	3	27	6	69	9	96	186	2	9	2	138 " =lc
17	3:52	5	40	6	60	11	100	210	3	26	2	3 139
18	1:55	5	45	4	39	9	84	174	3	36	2	120
19		-	-	-	-	-	-	-	-	-		
20	0:58	6	31	3	12	9	43	133	4	14	2	70 C
21	2:10	4	26	2	11	6	37	97	2	13	3	4 58
22	2:34	5	23	3	8	8	31	111	2	9	3	4 50 " =lc
23		-	-	-	-	-	-	-	-	-		
24	1:47	7	19	4	7	11	26	136	3	13	4	5 S
25	2:26	4	30	3	12	7	42	112	3	21	3	79
26	2:04	4	29	3	30	7	59	129	3	24	3	93
27	2:53	4	28	5	24	9	52	142	3	24	1	2 110
28		-	-	-	-	-	-	-	-	-		
29		-	-	-	-	-	-	-	-	-		R
30	1:02	3	36	9	90	12	126	246	5	76	3	4 140 M
31	0:58	4	38	8	118	12	156	276	5	81	3	167
Sum		1871		2871		4742		2049		3008		
Mean		74.8		114.8		189.7		82.0		k=0.634		

Days 25

8cm Refractor X67 Projection 15cm

POLAR FACULA

N	S
0.72	0.41
1.16	

6 7 8 9 10 11 (12) 1 2 3 4 5 6

48814 ÷ 305 = 160.0 N 25792 = 84.6
S 23022 = 75.5