

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1982 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	2h19m	5	26	5	15	10	41	141	2	10	3	
2	1:55	5	31	4	8	9	39	129	3	13	3	
3	2:13	6	45	5	11	11	56	166	5	37	3	
4		-	-	-	-	-	-	-	-	-	-	C
5	4:21	5	28	5	14	10	42	142	6	28	1	
6	4:38	2	31	5	14	7	45	115	3	34	1 - 2	
7	2:08	1	32	5	15	6	47	107	3	13	1 - 2	
8	2:17	3	38	4	15	7	53	123	5	16	2	
9	5:05	3	29	5	21	8	50	130	5	18	2	
10	1:23	1	12	7	23	8	35	115	5	12	4	
11	2:35	0	0	4	20	4	20	60	2	3	1 - 2	
12		-	-	-	-	-	-	-	-	-	-	R
13	2:30	0	0	4	24	4	24	64	0	0	1	
14	1:52	1	2	3	25	4	27	67	1	2	2	
15	3:00	2	13	3	36	5	49	99	2	43	4	
16	4:54	2	16	3	23	5	39	89	4	37	2	
17	2:46	4	22	6	37	10	59	159	7	51	2	
18		-	-	-	-	-	-	-	-	-	-	S
19	4:33	5	17	5	51	10	68	168	5	35	2 - 3	
20	2:35	5	20	6	39	11	59	169	4	12	2	
21	4:13	6	16	6	36	12	52	172	5	20	1 - 2	
22	3:11	6	24	5	27	11	51	161	5	28	2 - 3	
23	3:42	4	20	4	19	8	39	119	5	19	2 - 3	
24		-	-	-	-	-	-	-	-	-	-	C
25	1:50	5	23	2	12	7	35	105	2	12	2	
26	2:17	6	43	2	9	8	52	132	2	11	2	
27	3:08	4	35	6	27	10	62	162	4	31	3	
28	3:36	6	33	4	42	10	75	175	3	32	2	
29	4:03	8	47	5	62	13	109	239	6	51	2	
30	2:49	8	69	6	86	14	155	295	8	79	4	naked eye=2c
31	1:34	9	86	7	103	16	189	349	9	138	3	naked eye=2c

Sum	1878	2074	3952	1895	c=4
Mean	69.6	76.8	146.4	70.2	

Days 27 ^{50.1} ^{55.3} ^{105.4}

POLAR FACULA	
N	S
0.08	0.46
0.54	

8cm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1982 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	3h27m	6	67	7	96	13	163	293	8	117	1 - 2	naked eye=lc
2	1:12	7	60	8	93	15	153	303	10	122	2	naked eye=lc
3		-	-	-	-	-	-	-	-	-		C
4		-	-	-	-	-	-	-	-	-		S
5	1:45	9	32	13	97	22	129	349	11	48	3 - 4	
6	1:54	7	30	14	116	21	146	356	10	41	2 - 3	
7	0:25	3	16	13	113	16	129	289	3	8	1 - 2	naked eye=lb
8	1:29	5	21	13	124	18	145	325	3	52	2	naked eye=la
9	3:26	5	19	11	103	16	122	282	4	85	3	naked eye=la
10	4:56	5	11	10	124	15	135	285	6	119	3 - 4	naked eye=la
11	4:01	2	6	7	108	9	114	204	8	110	2	naked eye=la
12	2:13	3	7	6	105	9	112	202	6	102	3	naked eye=lb
13	0:14	3	16	6	87	9	103	193	6	36	4	naked eye=lb
14	3:28	4	26	5	74	9	100	190	4	28	2	
15	2:27	4	26	4	49	8	75	155	2	17	2	naked eye=lc
16	3:32	4	30	5	30	9	60	150	2	15	2	naked eye=lc
17		-	-	-	-	-	-	-	-	-		S
18		-	-	-	-	-	-	-	-	-		M
19		-	-	-	-	-	-	-	-	-		R
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		M
22	2:50	4	42	3	7	7	49	119	2	20	2 - 3	
23	3:24	4	34	3	10	7	44	114	3	14	2 - 3	
24		-	-	-	-	-	-	-	-	-		C
25	2:48	6	36	5	11	11	47	157	4	18	2	
26	1:08	8	46	6	23	14	69	209	7	23	2 - 3	
27	2:08	5	33	8	50	13	83	213	7	37	2	
28	0:19	3	38	8	48	11	86	196	7	32	3	
Sum		1566		3018		4584			2174			a=4 b=3 c=4
Mean		78.3		150.9		229.2			108.7			T=11

Days 20 ^{56.4} ^{108.6} ^{165.0} POLAR FACULA
 8 cm Refractor X67 Projection 15cm

N	S
0.05	1.15
1.20	

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1982 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		-	-	-	-	-	-	-	-	-		M
3	0h55m	4	47	8	93	12	140	260	8	113	4 - 5	naked eye=lc
4	3:52	3	30	8	89	11	119	229	7	100	2	naked eye=lc
5		-	-	-	-	-	-	-	-	-		R
6		-	-	-	-	-	-	-	-	-		M
7	0:59	4	21	7	80	11	101	211	3	54	2	naked eye=lc
8	3:45	5	32	7	71	12	103	223	2	14	3	
9	1:56	3	26	6	48	9	74	164	5	14	4	
10	0:18	4	23	9	38	13	61	191	8	33	4	
11	0:51	5	29	7	23	12	52	172	6	36	4	
12		-	-	-	-	-	-	-	-	-		C
13	0:09	6	60	7	29	13	89	219	5	45	4	
14	3:23	6	55	6	37	12	92	212	4	32	2 - 3	
15		-	-	-	-	-	-	-	-	-		R
16	2:12	6	61	4	51	10	112	212	5	81	3	
17	1:23	9	58	4	55	13	113	243	9	94	2	
18	2:22	8	54	3	69	11	123	233	9	117	2	naked eye=lc
19	1:07	8	49	3	76	11	125	235	6	102	3	naked eye=lc
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		R
22		-	-	-	-	-	-	-	-	-		M
23	1:47	9	46	7	42	16	88	248	5	19	4	
24	1:16	7	36	4	13	11	49	159	3	14	1 - 2	
25	- 08	7	52	6	22	13	74	204	5	18	2	
26	3:57	5	40	6	33	11	73	183	4	15	1 - 2	naked eye=lc
27	2:52	7	36	7	52	14	88	228	7	48	2	naked eye=lb
28	0:13	6	45	7	54	13	99	229	6	72	3	naked eye=lc
29	0:08	7	49	6	58	13	107	237	6	80	4	naked eye=lc
30	0:45	5	52	8	50	13	102	232	8	81	3	naked eye=lc
31	4:41	3	48	8	30	11	78	188	5	37	3	naked eye=lc

Sum 2219 2493 4712 2479 b=1 c=10 T=11

Mean 100.9 113.3 214.2 112.7

Days	22	72.6	81.6	154.2	POLAR FACULA
					N S
					0.00 0.95
					0.95

8cm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1982 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	0h56	4	40	7	26	11	66	176	5	17	2 - 3	
2	3:04	4	41	4	17	8	58	138	2	11	3	
3		-	-	-	-	-	-	-	-	-		R
4	3:43	7	24	5	35	12	59	179	4	28	2	
5	0:22	5	19	5	28	10	47	147	5	30	3	
6	0:21	5	24	4	26	9	50	140	5	32	4 - 5	
7		-	-	-	-	-	-	-	-	-		C
8		-	-	-	-	-	-	-	-	-		C
9		-	-	-	-	-	-	-	-	-		C
10	5:30	6	31	6	37	12	68	188	4	15	2 - 3	
11	4:16	6	33	6	45	12	78	198	7	47	3 - 4	
12	3:32	5	48	6	49	11	97	207	6	65	4	
13	3:50	6	39	4	31	10	70	170	7	60	2	
14		-	-	-	-	-	-	-	-	-		R
15		-	-	-	-	-	-	-	-	-		R
16	1:55	6	28	5	33	11	61	171	4	23	4	
17	2:41	6	15	5	23	11	38	148	3	17	2	
18	3:49	5	7	4	24	9	31	121	3	19	2	
19	4:00	3	6	6	27	9	33	123	3	20	3	
20	3:22	5	13	4	23	9	36	126	1	2	5	
21		-	-	-	-	-	-	-	-	-		C
22	3:37	6	45	2	4	8	49	129	2	5	4	
23	3:03	8	89	1	6	9	94	184	6	51	4	
24	4:48	8	98	1	3	9	101	191	7	83	4	
25	-1:13	9	96	2	9	10	105	205	7	80	5	
26	4:02	8	86	2	12	10	98	198	7	84	4	
27	3:53	7	64	3	11	10	75	175	4	34	4 - 5	
28	3:44	5	57	2	10	7	67	137	1	6	4 - 5	
29	1:26	5	33	2	16	7	49	119	0	0	3	
30		-	-	-	-	-	-	-	-	-		C

Sum 2215 1355 3570 1659

Mean 100.7 61.6 162.3 75.4

Days 22 72.5 44.3 116.8 POLAR FACULA

N	S
0.00	0.38
0.38	

Scm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1982 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		-	-	-	-	-	-	-	-	-		C
3		-	-	-	-	-	-	-	-	-		M
4	3h05m	1	2	3	35	4	37	77	1	20	5	
5	4:04	1	2	3	32	4	34	74	0	0	1 - 2	
6		-	-	-	-	-	-	-	-	-		C
7	3:56	1	4	3	44	4	48	88	1	36	3	
8	3:42	1	2	5	50	6	52	112	3	39	4 - 5	
9	4:02	1	2	5	47	6	49	109	5	47	4 - 5	
10		-	-	-	-	-	-	-	-	-		M
11	3:47	2	4	5	39	7	43	113	5	9	3 - 4	
12	4:07	2	4	6	28	8	32	112	3	4	4	
13	4:07	3	5	7	24	10	29	129	1	2	5	
14		-	-	-	-	-	-	-	-	-		R
15		-	-	-	-	-	-	-	-	-		M
16	2:20	2	8	3	18	5	26	76	3	22	2	
17	2:57	3	15	3	25	6	40	100	3	31	3	
18	3:43	4	22	4	25	8	47	127	4	26	3	
19	0:14	5	30	5	19	10	49	149	4	15	3 - 4	
20	3:11	6	57	4	13	10	70	170	1	4	2 - 3	
21	3:50	6	47	2	6	8	53	133	3	27	2	
22	2:53	7	54	4	14	11	68	178	6	56	3	
23	0:07	3	50	5	20	8	70	150	4	50	2 - 3	
24	4:09	3	55	6	18	9	73	163	5	55	3	
25	0:33	3	56	2	5	5	61	111	4	11	2 - 3	
26	0:05	3	48	4	22	7	70	140	3	21	3 - 4	
27	1:51	2	36	5	53	7	89	159	1	10	4	
28	1:54	4	19	5	66	9	85	175	4	15	3 - 4	
29	0:01	2	7	6	64	8	71	151	6	36	3	
30	-2:42	1	2	6	47	7	49	119	5	38	3	
31	0:51	0	0	8	43	8	43	123	4	34	4	

Sum	1191	1847	3038	1398
Mean	49.6	77.0	126.6	58.3

Days 24 35.7 55.4 91.1

8cm Refractor X67 Projection 15cm	POLAR FACULA	
	N	S
	0.54	0.42
	0.96	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1982 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		-	-	-	-	-	-	-	-	-		R
3		-	-	-	-	-	-	-	-	-		R
4	2h42m	4	22	3	44	7	66	136	3	10	3	
5	3:13	3	26	3	58	6	84	144	3	25	1 - 2	naked eye=lc
6	2:51	3	18	3	56	6	74	134	5	29	3	naked eye=lb
7	3:42	4	12	3	49	7	61	131	5	58	1	naked eye=lb
8	3:37	5	16	4	73	9	89	179	5	69	3	naked eye=lb
9	2:41	6	11	4	76	10	87	187	1	58	3	naked eye=lb
10	3:43	5	10	5	83	10	93	193	1	58	2 - 3	naked eye=lb
11	3:38	4	21	4	77	8	98	178	3	28	2	naked eye=lc
12	3:29	6	38	4	64	10	102	202	4	25	3	
13		-	-	-	-	-	-	-	-	-		C
14		-	-	-	-	-	-	-	-	-		R
15	2:40	4	70	4	25	8	95	175	4	24	2 - 3	naked eye=lb
16	3:34	4	80	5	22	9	102	192	6	40	2	naked eye=lc
17	2:53	5	72	4	18	9	90	180	3	66	2	naked eye=lc
18	4:47	5	99	3	14	8	113	193	2	71	2 - 3	naked eye=lc
19	4:16	4	126	3	9	7	135	205	3	100	5	naked eye=lc
20	1:37	5	140	1	3	6	143	203	4	133	4	naked eye=lb
21	3:09	5	120	1	6	6	126	186	4	74	2 - 3	naked eye=lb,lc
22	0:17	5	131	3	13	8	144	224	5	99	3	naked eye=lc
23		-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-		C
25	3:36	3	59	3	11	6	70	130	1	11	3	
26		-	-	-	-	-	-	-	-	-		C
27	4:12	2	10	2	9	4	19	59	1	6	2	
28	3:58	2	4	1	9	3	13	43	1	9	2 - 3	
29	2:57	1	2	2	14	3	16	46	2	14	2 - 3	
30	2:52	1	2	3	10	4	12	52	2	8	2	

Sum 1949 1423 3372 1695 a=4 b=8 c=4 T=16

Mean 88.6 64.7 153.3 77.0

Days 22 ~~63.8~~ 46.6 110.4 POLAR FACULA

	N	S
Secm Refractor X67 Projection 15cm	0.32	0.09
	0.41	

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1962 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	3h49m	2	6	3	8	5	14	64	1	1	2	
2	0:05	2	6	2	4	4	10	50	2	6	2 - 3	
3	1:40	1	1	1	2	2	3	23	0	0	2	
4	1:42	1	1	2	5	3	6	36	1	4	3	
5	0:25	1	1	2	15	3	16	46	1	12	3	
6	3:45	0	0	2	14	2	14	34	1	6	5	
7		-	-	-	-	-	-	-	-	-	-	R
8	1:38	1	9	1	8	2	17	37	0	0	2	
9	3:50	2	27	2	6	4	33	73	1	5	1 - 2	
10	2:26	2	54	5	18	7	72	142	1	4	3	
11	0:11	3	63	5	34	8	97	177	3	16	2 - 3	
12	1:50	3	89	5	28	8	117	197	2	6	1 - 2	naked eye=lb
13		-	-	-	-	-	-	-	-	-	-	C
14		-	-	-	-	-	-	-	-	-	-	C
15	2:20	6	162	5	52	11	214	324	3	135	2 - 3	naked eye=lb
16		-	-	-	-	-	-	-	-	-	-	C - R
17		-	-	-	-	-	-	-	-	-	-	C
18		-	-	-	-	-	-	-	-	-	-	M
19		-	-	-	-	-	-	-	-	-	-	R
20		-	-	-	-	-	-	-	-	-	-	C
21	3:47	8	75	5	19	13	94	224	4	12	5	
22	1:53	6	27	4	10	10	37	137	1	2	3	
23	2:43	4	12	3	5	7	17	87	1	3	4	
24		-	-	-	-	-	-	-	-	-	-	C - R
25		-	-	-	-	-	-	-	-	-	-	C - R
26		-	-	-	-	-	-	-	-	-	-	R
27	4:18	1	2	1	2	2	4	24	1	2	3	
28		-	-	-	-	-	-	-	-	-	-	C - R
29	0:00	1	9	0	0	1	9	19	1	9	2	
30	4:59	2	7	1	8	3	15	45	1	4	3	
31	2:15	2	12	2	23	4	35	75	2	9	5	
Sum		1043		771		1814			506			b=2 T=2
Mean		54.9		40.6		95.5			26.6			

Days 19 39.5 29.2 68.7

POLAR FACULA	
N	S
0.33	0.00
0.33	

8cm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1982 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	1h10m	2	5	4	36	6	41	101	4	23	3	
3		-	-	-	-	-	-	-	-	-		R
4	4:05	2	14	2	37	4	51	91	2	37	2	
5	3:34	3	41	2	27	5	68	118	3	37	2 - 3	
6	2:40	3	59	3	26	6	85	145	4	26	3	
7	0:33	2	73	5	31	7	104	174	4	36	3	
8	4:17	3	92	7	42	10	134	234	6	76	3	
9	3:16	3	94	6	35	9	129	219	6	94	3	
10	3:42	5	100	5	20	10	120	220	4	86	3	
11	3:21	4	91	8	34	12	125	245	3	91	3	
12		-	-	-	-	-	-	-	-	-		C
13	4:03	2	73	4	26	6	99	159	4	58	2 - 3	
14	4:21	3	32	4	31	7	63	133	3	33	2	
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		R
17		-	-	-	-	-	-	-	-	-		C
18	4:09	4	25	4	45	8	70	150	2	2	2	
19		-	-	-	-	-	-	-	-	-		M
20	2:56	3	18	2	36	5	54	104	1	13	2 - 3	
21	2:49	2	15	3	31	5	46	96	2	11	2	
22	5:24	2	20	3	32	5	52	102	4	27	2	
23	3:14	3	34	2	26	5	60	110	4	30	4	
24	-1:59	3	37	2	25	5	62	112	4	53	4	naked eye=lc
25	3:50	5	62	2	23	7	85	155	3	73	2 - 3	naked eye=lc
26	0:52	5	60	2	15	7	75	145	4	52	4 - 5	naked eye=lc
27	2:40	5	74	1	16	6	90	150	3	66	2	naked eye=lc
28	1:20	7	80	2	20	9	100	190	3	43	3 - 4	
29		-	-	-	-	-	-	-	-	-		C
30		-	-	-	-	-	-	-	-	-		C
31	2:14	7	47	4	26	11	73	183	4	13	3	
Sum		1926		1410		3336			1750			c = 4 T = 4

Mean 87.5 64.1 151.6 79.5

Days 22 63.0 46.1 109.2

POLAR FACULA	
N	S
1.45	0.00
1.45	

8cm Refractor X67 Projection 15cm

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1962 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	3h17m	6	23	3	23	9	46	136	2	12	3	
2		-	-	-	-	-	-	-	-	-	-	M
3		-	-	-	-	-	-	-	-	-	-	M
4	3:51	9	71	5	34	14	105	245	8	51	2 - 3	
5	2:39	11	65	5	32	16	97	257	8	61	2 - 3	
6		-	-	-	-	-	-	-	-	-	-	R
7		-	-	-	-	-	-	-	-	-	-	G
8		-	-	-	-	-	-	-	-	-	-	C
9	1:54	6	30	5	28	11	58	168	4	24	2	
10		-	-	-	-	-	-	-	-	-	-	R
11		-	-	-	-	-	-	-	-	-	-	R
12		-	-	-	-	-	-	-	-	-	-	R
13	0:34	1	3	7	44	8	47	127	3	13	3	
14	3:24	3	8	6	35	9	43	133	2	4	1 - 2	
15	3:29	5	20	6	39	11	59	169	3	19	3	
16		-	-	-	-	-	-	-	-	-	-	C
17	1:51	4	42	5	30	9	72	162	4	43	3	
18	2:22	4	38	2	31	6	69	129	4	35	3	
19		-	-	-	-	-	-	-	-	-	-	R
20		-	-	-	-	-	-	-	-	-	-	R
21	1:10	4	42	3	39	7	81	151	5	75	3	
22	3:10	4	42	3	28	7	70	140	4	52	3	
23		-	-	-	-	-	-	-	-	-	-	R
24		-	-	-	-	-	-	-	-	-	-	C
25		-	-	-	-	-	-	-	-	-	-	C
26	2:57	6	26	9	41	15	67	217	2	4	3	
27	0:01	4	40	6	32	10	72	172	3	25	3	
28		-	-	-	-	-	-	-	-	-	-	C
29	4:44	4	58	6	69	10	127	227	8	95	3	naked eye = /c
30		-	-	-	-	-	-	-	-	-	-	C

Sum 1218 1215 2433 1113 C=1 T=1

Mean 87.0 86.8 173.8 79.5

Days 14 ^{62.6} ^{62.5} ^{125.1} POLAR FACULA
 8cm Refractor X67 Projection 15cm
 N 2.42 S 0.00
 2.42

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1982 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	2h20m	3	50	6	61	9	111	201	8	95	4	naked eye=lc
2		-	-	-	-	-	-	-	-	-		R
3	2:41	5	59	7	50	12	109	229	7	33	3	naked eye=lc
4	0:01	4	44	5	35	9	79	169	1	4	3	
5	4:30	6	41	4	20	10	61	161	1	4	2	
6		-	-	-	-	-	-	-	-	-		C
7	2:27	4	12	1	7	5	19	69	1	7	1 - 2	
8		-	-	-	-	-	-	-	-	-		C
9		-	-	-	-	-	-	-	-	-		C
10	3:28	5	44	2	4	7	48	118	6	45	2 - 3	
11		-	-	-	-	-	-	-	-	-		C
12	3:49	4	33	4	8	8	41	121	3	31	5	
13	3:44	4	42	3	10	7	52	122	5	31	4 - 5	
14	3:59	4	39	2	4	6	43	103	3	22	3	
15	3:33	4	31	3	8	7	39	109	4	19	2 - 3	
16		-	-	-	-	-	-	-	-	-		C
17	3:49	3	4	3	13	6	17	77	3	12	3	
18	3:32	2	3	1	12	3	15	45	1	12	3	
19		-	-	-	-	-	-	-	-	-		R
20	2:21	3	7	4	27	7	34	104	3	15	3	
21	3:45	4	12	4	39	8	51	131	2	12	3	
22	2:06	4	20	4	48	8	68	148	3	20	2 - 3	
23	0:07	6	30	5	47	11	77	187	4	32	3	
24		-	-	-	-	-	-	-	-	-		M
25	2:36	5	45	3	55	8	100	180	3	65	2	
26	1:29	5	37	2	73	7	110	180	6	88	2	
27	0:00	6	31	3	78	9	109	199	8	98	4	
28	0:27	4	22	4	54	8	76	156	5	41	2 - 3	naked eye=lc
29	1:06	5	28	2	38	7	66	136	5	38	3	
30	3:42	4	29	4	33	8	62	142	4	39	4 - 5	
31	3:19	3	24	3	15	6	39	99	2	19	2 - 3	
Sum		1657		1529		3186			1662			C=3 T=3
Mean		72.0		66.5		138.5			72.3			

Days 23

51.9 47.9 99.7
 Sun Refractor X67 Projection 15cm

POLAR FACULA	
N	S
1.41	0.00
1.41	

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1982 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		-	-	-	-	-	-	-	-	-		R
2	3h47m	6	34	2	9	8	43	123	0	0	2	
3	3:22	5	26	1	2	6	28	88	0	0	3	
4	3:19	5	21	3	13	8	34	114	2	11	2 - 3	
5		-	-	-	-	-	-	-	-	-		C
6	0:48	6	18	1	7	7	25	95	2	6	3	
7		-	-	-	-	-	-	-	-	-		R
8	3:07	4	21	4	10	8	31	111	6	27	2	
9		-	-	-	-	-	-	-	-	-		C
10		-	-	-	-	-	-	-	-	-		R
11	4:49	4	14	3	31	7	45	115	2	10	1 - 2	
12	1:54	2	5	3	44	5	49	99	2	5	2 - 3	
13	2:41	1	3	6	73	7	76	146	5	32	2 - 3	naked eye=lc
14	1:20	1	3	7	80	8	83	163	4	74	3	naked eye=lb
15		-	-	-	-	-	-	-	-	-		C
16		-	-	-	-	-	-	-	-	-		C
17		-	-	-	-	-	-	-	-	-		R - C
18	3:28	1	2	7	75	8	77	157	1	17	2	
19		-	-	-	-	-	-	-	-	-		C
20	3:28	1	6	6	80	7	86	156	2	61	2	naked eye=lb
21	2:09	2	11	6	86	8	97	177	4	85	2	naked eye=la
22		-	-	-	-	-	-	-	-	-		M
23	4:00	3	14	3	47	6	61	121	2	5	1	naked eye=lb
24	3:45	3	16	2	38	5	54	104	2	6	1	
25	3:21	2	10	3	33	5	43	93	3	7	2	
26	2:26	2	10	4	24	6	34	94	3	21	2	
27	3:32	1	3	3	23	4	26	66	1	10	2	
28	0:50	2	4	6	34	8	38	118	2	10	3	
29	3:25	1	2	4	43	5	45	95	1	6	1 - 2	
30		-	-	-	-	-	-	-	-	-		M
Sum		743		1492		2235			831			c=1 b=3 a=1
Mean		39.1		78.5		117.6			43.7			T=5
Days	19	28.2		56.5		84.7						

Days 19

8cm Refractor X67 Projection 15cm

POLAR FACULA

N	S
1.47	0.06
1.53	

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1982 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	2h24m	3	7	4	52	7	59	129	4	52	2 - 3	naked eye=lc
2	2:45	4	14	4	45	8	59	139	5	48	2 - 3	naked eye=lc
3	3:25	4	40	3	44	7	84	154	4	52	3	naked eye=lc
4	1:50	4	57	3	32	7	89	159	3	44	3	naked eye=lc
5	1:51	4	56	3	32	7	88	158	5	46	1 - 2	
6	3:18	4	57	7	39	11	96	206	5	52	3	naked eye=lc
7	3:21	3	50	9	47	12	97	217	3	41	3	naked eye=lc
8	3:54	4	68	7	50	11	118	228	3	51	3	naked eye=lc
9		-	-	-	-	-	-	-	-	-		C
10	3:46	3	80	7	52	10	132	232	4	19	2 - 3	naked eye=lc
11		-	-	-	-	-	-	-	-	-		R
12	2:16	3	64	9	77	12	141	261	6	85	2 - 3	naked eye=lb,lc
13	4:01	2	43	9	88	11	131	241	7	103	3	naked eye=lb,lc
14	3:32	1	33	8	87	9	120	210	6	91	3	naked eye=lc
15	2:55	1	32	9	72	10	104	204	6	78	2 - 3	
16	4:16	2	12	6	77	10	89	189	5	56	1 - 2	
17		-	-	-	-	-	-	-	-	-		S-R
18	1:40	2	9	5	52	7	61	131	3	38	2 - 3	
19	3:55	2	8	5	30	7	38	108	2	12	2 - 3	
20	1:38	1	4	4	20	5	24	74	1	2	3	
21	3:13	2	7	5	19	7	26	96	2	6	2	
22		-	-	-	-	-	-	-	-	-		C
23		-	-	-	-	-	-	-	-	-		C
24	1:32	2	8	6	34	8	42	122	4	20	1	
25	4:04	2	23	6	58	8	81	161	3	23	2 - 3	
26		-	-	-	-	-	-	-	-	-		C
27		-	-	-	-	-	-	-	-	-		M
28	3:43	3	14	6	65	9	79	169	4	59	2 - 3	
29	1:58	3	9	5	52	8	61	141	4	49	3	
30		-	-	-	-	-	-	-	-	-		C
31	2:12	1	4	4	42	5	46	96	2	18	3	
Sum		1299		2526		3825			1955		b=2 c=11 T=13	
Mean		56.5		109.8		166.3			95.0			

Days 23 40.7 79.1 119.7

8cm Refractor X67 Projection 15cm

POLAR FACULA	
N	S
0.73	0.05
0.77	