

MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1980 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g f		Cent.		Seeing 5 - 1	Rem	
		g	f	g	f	g	f	g	f			
1	4h48m	3	12	6	35	9	47	137	6	25	1 - 2	
2		-	-	-	-	-	-	-	-	-	-	C
3		-	-	-	-	-	-	-	-	-	-	M
4		-	-	-	-	-	-	-	-	-	-	C
5	3:34	8	51	6	45	14	96	236	8	62	2	
6	3:17	6	59	8	39	14	98	238	8	56	1 - 2	
7	4:16	7	66	9	41	16	107	267	7	45	2	
8	2:24	9	59	5	35	14	94	234	8	46	2 - 3	
9	0:53	10	78	8	43	18	121	301	8	91	4	
10	3:16	8	72	5	34	13	106	236	7	80	3	
11	2:44	10	70	4	32	14	102	242	4	38	1 - 2	
12	1:29	11	85	4	35	15	120	270	4	42	2	
13		-	-	-	-	-	-	-	-	-	-	S
14	5:10	8	49	7	40	15	89	239	6	28	2	
15		-	-	-	-	-	-	-	-	-	-	M
16		-	-	-	-	-	-	-	-	-	-	M
17		-	-	-	-	-	-	-	-	-	-	M
18	1:41	3	20	4	45	7	65	135	1	27	3	
19	0:52	3	31	5	38	8	69	149	3	28	3	
20	0:37	4	29	4	36	8	65	145	4	45	2 - 3	
21		-	-	-	-	-	-	-	-	-	-	S
22	3:47	4	31	6	39	10	70	170	5	51	2 - 3	
23	9:44	3	22	6	45	9	67	157	4	40	2	
24	1:15	4	26	6	42	10	68	168	5	47	3	
25	1:19	4	15	5	35	9	50	140	2	11	4	
26	1:11	5	17	5	29	10	46	146	2	5	3	
27	4:46	4	16	4	25	8	41	121	1	5	2	
28	1:21	7	26	6	31	13	57	187	2	9	3 - 4	
29		-	-	-	-	-	-	-	-	-	-	C
30		-	-	-	-	-	-	-	-	-	-	C
31	0:24	9	59	3	26	12	85	205	4	25	2	

Sum	2193	1930	4123	1796	3508
Mean	104.4	91.9	196.3	85.5	K=0.851

Days	21	75.2	66.2	1474
8cm Refractor X67 Projection 15cm				POLAR FACULA
				N
				S
				0.10
				0.05
				0.15

MONTHLY REPORT OF SUNSPOT OBSERVATION

FEBRUARY 1980 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f		Cent.		Seeing		Remarks	
		g	f	g	f	g	f	R	g	f	5		1
1		-	-	-	-	-	-	-	-	-	-	C	
2	1h23m	8	64	2	49	10	113	213	5	57	1	2	
3	0:18	9	60	4	58	13	118	248	9	91	2		neked eye=lb
4	0:25	10	47	3	58	13	105	235	8	85	2		neked eye=lc
5	3:07	7	34	3	65	10	99	199	4	69	2		neked eye=lc
6	2:22	7	38	5	79	12	117	237	5	70	1	2	neked eye=lc
7	1:54	10	56	5	77	15	133	283	4	73	2		neked eye=lc
8	4:14	7	36	4	69	11	105	215	4	18	1	2	
9	2:07	4	27	4	74	8	101	181	2	35	2		
10	2:02	6	31	3	45	9	76	166	4	37	3		
11	2:35	4	50	3	44	7	94	164	3	57	3		
12	2:57	4	43	4	31	8	74	154	2	26	2		
13	2:30	4	45	4	27	8	72	152	1	3	1	2	
14		-	-	-	-	-	-	-	-	-	-	-	M
15	1:10	3	57	7	34	10	91	191	3	39	3		neked eye=lc
16	3:34	3	48	5	34	8	82	162	6	51	2		neked eye=lc
17	3:41	3	46	5	33	8	79	159	5	60	2		neked eye=lc
18	5:04	3	43	4	31	7	74	144	4	56	2		
19		-	-	-	-	-	-	-	-	-	-	-	S
20	4:32	3	20	6	46	9	66	156	5	27	3		
21	5:38	2	23	5	26	7	49	119	3	15	2		
22	1:53	2	24	5	33	7	57	127	3	22	2		
23	1:21	1	28	4	22	5	50	100	2	33	3		
24	1:38	3	26	4	13	7	39	109	3	29	2		
25	3:56	4	30	6	18	10	48	148	4	32	2		
26		-	-	-	-	-	-	-	-	-	-	-	C
27	3:14	9	31	5	26	14	57	197	4	15	2		
28		-	-	-	-	-	-	-	-	-	-	-	M
29	0:48	8	28	9	46	17	74	244	7	42	4		

Sum 2175 2128 4303 2042 3787

Mean 90.6 88.7 179.3 85.1 K = 0.880

Days 24

8cm Refractor X57 Projection 15cm

¹²⁷¹
POLAR FACULA

N S

0.13 0.00

0.13

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1980 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	0h56m	5	17	8	42	13	59	189	6	39	2 - 3165	
3	2:03	4	16	9	40	13	56	186	7	40	2 - 151	
4		-	-	-	-	-	-	-	-	-		C
5	5:18	6	14	5	29	11	43	153	6	19	2 - 3130	
6	2:31	5	17	5	46	10	63	163	3	24	4 - 132	
7		-	-	-	-	-	-	-	-	-		C - R
8	3:21	5	12	5	25	10	37	137	2	20	2 - 3101	
9		-	-	-	-	-	-	-	-	-		R
10	2:30	1	2	5	17	6	19	79	1	5	2 - 69	
11	3:45	1	2	6	15	7	17	87	1	2	2 - 367	
12	1:43	1	2	5	18	6	20	80	2	6	2 - 70	
13	3:06	1	2	4	26	5	28	78	3	18	2 - 71	
14		-	-	-	-	-	-	-	-	-		R
15	2:59	2	5	5	15	7	20	90	4	14	4 - 52	
16	1:53	1	1	4	5	5	6	56	2	2	2 - 36	
17		-	-	-	-	-	-	-	-	-		M
18	1:27	1	1	5	15	6	16	76	3	7	2 - 363	
19	3:36	4	7	4	37	8	44	124	2	30	3 - 119	
20	2:25	3	9	5	43	8	52	132	2	32	3 - 108	
21	2:19	3	12	5	35	8	47	127	2	28	3 - 105	
22		-	-	-	-	-	-	-	-	-		S
23	3:15	5	25	7	36	12	61	181	5	13	3 - 149	
24	4:02	8	35	5	35	13	70	200	6	32	3 - 175	
25	3:44	10	40	5	27	15	67	217	6	31	2 - 3176	
26		-	-	-	-	-	-	-	-	-		M
27	2:39	7	49	5	22	12	71	191	5	20	2 - 3205	
28	0:20	9	58	8	34	17	92	262	7	39	2 - 221	
29	3:27	7	77	5	22	12	99	219	6	54	3 - 4191	
30	5:14	6	79	6	19	12	98	218	10	65	2 - 182	
31		-	-	-	-	-	-	-	-	-		M

Sum		1432	1813		3245	1450		2741
Mean		65.1	82.4		147.5	65.9		$k=0.245$
Days	22	469	593		106.2			
				POLAR FACULA				
				N	S			
8cm Refractor X67 Projection 15cm				0.14	0.00			
				0.14				

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1980 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total log+f			Cent.		Seeing 5 - 1	Remarks
		g	f	g	f	g	f	R	g	f		
1		-	-	-	-	-	-	-	-	-	-	R
2	1h50m	7	57	4	12	11	69	179	4	19 ¹⁴⁵ / ₁₃₃	3 - 4	
3	- 22	8	46	3	12	11	58	168	3	13 ¹²³ / ₁₃₃	4	
4	1:16	5	42	3	10	8	52	132	3	4 ¹²³ / ₁₅₄	3	
5	3:44	4	59	2	11	6	70	130	2	7 ¹⁵⁴ / ₁₅₄	2	
6		-	-	-	-	-	-	-	-	-	-	R
7	5:19	5	96	5	18	10	144	214	4	55 ²⁰⁰ / ₁₉₉	2	neked eye=1c
8	1:59	4	107	5	28	9	135	225	4	90 ¹⁹⁹ / ₁₉₉	3	neked eye=2c
9		-	-	-	-	-	-	-	-	-	-	R
10	2:56	3	93	5	49	8	142	222	3	14 ²¹⁴ / ₂₁₄	2	neked eye=1c
11		-	-	-	-	-	-	-	-	-	-	M
12		-	-	-	-	-	-	-	-	-	-	C
13		-	-	-	-	-	-	-	-	-	-	R
14		-	-	-	-	-	-	-	-	-	-	R
15		-	-	-	-	-	-	-	-	-	-	C
16		-	-	-	-	-	-	-	-	-	-	M
17	3:41	2	27	7	52	9	79	169	4	43 ¹²⁶ / ₁₂₇	2 - 3	
18	2:55	2	15	6	46	8	61	141	2	31 ¹²⁷ / ₁₂₇	2	
19	3:25	3	18	7	61	10	79	179	0	0 ¹³⁴ / ₁₃₄	4	
20		-	-	-	-	-	-	-	-	-	-	C
21	4:02	4	20	5	62	9	82	172	1	22 ¹⁴³ / ₁₄₃	- 4	
22	3:43	4	16	3	47	7	63	133	3	31 ¹²² / ₁₂₂	2	neked eye=1b
23	5:09	3	8	4	44	7	52	122	6	47 ⁹⁵ / ₉₅	4	neked eye=1b
24	3:24	2	6	3	53	5	59	109	5	58 ¹¹² / ₁₁₂	2	neked eye=1c
25	3:12	1	5	4	49	5	54	104	3	51 ¹³⁹ / ₁₃₉	2	neked eye=1c
26	3:01	4	9	3	55	7	64	134	1	30 ¹⁷¹ / ₁₇₁	2	neked eye=1e
27	0:30	5	8	3	54	8	62	142	1	1 ¹⁵⁶ / ₁₅₆	2	
28	0:03	7	12	4	72	11	84	194	0	0 ¹⁴⁹ / ₁₄₉	3	
29	1:34	4	6	4	60	8	66	146	3	16 ¹⁴⁵ / ₁₄₅	2	
30		-	-	-	-	-	-	-	-	-	-	C - R

Sum		1420		1595		3015		1052		2787		
Mean		74.7		83.9		158.7		55.4		K=0.924		

Days	19	53.8	60.4									
Scm Refractor X67 Projection												

POLAR FACULA	
N	S
0.17	0.00
0.17	

MONTHLY REPORT OF SUNSPOT OBSERVATION

May 1980 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	0h10m	3	10	7	72	10	82	182	3	54 ¹²¹	3	
2	3:33	4	13	4	85	8	98	178	4	51 ¹⁴⁹	2 - 3	
3	1:30	3	17	4	100	7	117	187	4	58 ¹⁴⁰	3	
4	0:14	3	22	5	83	8	105	185	4	29 ¹⁶⁶	2	
5		-	-	-	-	-	-	-	-	-	-	C
6	4:03	5	25	7	69	12	94	214	5	50 ¹⁴⁵	3	
7	5:02	4	21	7	44	11	65	175	3	39 ¹⁴⁷	1 - 2	
8		-	-	-	-	-	-	-	-	-	-	M
9		-	-	-	-	-	-	-	-	-	-	R-C
10	- 57	3	14	5	38	8	52	132	2	10 ¹⁴⁴	1 - 2	
11	- 56	1	5	8	63	9	68	158	4	13 ¹⁴²	2 - 3	
12	4:02	1	2	9	78	10	80	180	3	52 ¹⁴³	3	
13	4:07	3	8	8	83	11	91	201	2	49 ¹⁵⁰	3	
14	4:29	4	7	6	71	10	78	178	5	50 ¹⁶⁶	3	
15		-	-	-	-	-	-	-	-	-	-	R
16		-	-	-	-	-	-	-	-	-	-	R-C
17	4:28	5	27	8	69	13	96	226	4	33 ¹⁷³	2 - 3	
18	5:04	4	24	7	63	11	87	197	3	37 ²¹⁵	1 - 2	
19	4:10	4	29	11	82	15	111	261	4	71 ²¹⁸	2 - 3	
20		-	-	-	-	-	-	-	-	-	-	C
21		-	-	-	-	-	-	-	-	-	-	C
22	2:09	5	35	13	98	18	133	313	5	63 ²⁴⁴	2 - 3	
23	2:52	4	54	10	121	14	175	315	8	77 ²⁴⁶	3	neked eye=lc
24	2:16	4	51	8	131	12	182	302	6	98 ²⁵⁶	3	neked eye=lb
25		-	-	-	-	-	-	-	-	-	-	C
26		-	-	-	-	-	-	-	-	-	-	R
27	4:05	5	48	9	97	14	145	285	6	104 ²²³	2	neked eye=lc
28	1:40	4	42	11	125	15	167	317	7	105 ¹⁹⁰	2 - 3	neked eye=lc
29	1:28	4	36	9	120	13	156	286	4	67 ¹⁷⁰	2 - 3	
30		-	-	-	-	-	-	-	-	-	-	C
31		-	-	-	-	-	-	-	-	-	-	C

Sum 1220 3252 4472 1965 ³⁵⁴⁸

Mean 61.0 162.6 223.6 98.3 $K=0.773$

Days 20 ^{43.9 117.1 161.0}

POLAR FACULA

N S

8cm Refractor X67 Projection 15cm 0.20 0.00
0.20

MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1980 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	1h52m	3	13	6	73	9	86	176	3	56	152	2	
2	- 26	3	8	4	71	7	79	149	4	42	124	3	
3	3:44	4	6	6	65	10	71	171	6	19	128	4	- 5
4	2:35	4	9	6	64	10	73	173	7	29	141	3	
5	0:13	6	22	5	57	11	79	189	4	21	150	3	- 4
6	0:08	5	24	7	53	12	77	197	4	17	131	3	
7		-	-	-	-	-	-	-	-	-	-	-	
8		-	-	-	-	-	-	-	-	-	-	-	C
9		-	-	-	-	-	-	-	-	-	-	-	R
10		-	-	-	-	-	-	-	-	-	-	-	R
11	3:24	7	39	7	53	14	92	232	8	43	172	2	
12	4:31	7	64	4	54	11	118	228	2	15	166	3	- 4
13	3:42	7	54	5	37	12	91	211	5	45	161	2	
14	5:20	7	51	4	32	11	83	193	5	33	136	2	- 3
15		-	-	-	-	-	-	-	-	-	-	-	
16	3:52	5	46	4	17	9	63	153	3	49	134	3	- 4
17		-	-	-	-	-	-	-	-	-	-	-	
18	3:24	4	39	7	31	11	70	180	2	18	146	2	- 3
19	0:17	4	44	6	48	10	92	192	3	28	166	3	
20		-	-	-	-	-	-	-	-	-	-	-	
21		-	-	-	-	-	-	-	-	-	-	-	
22		-	-	-	-	-	-	-	-	-	-	-	C
23	2:11	5	24	11	103	16	127	287	10	64	190	3	
24	0:24	5	28	9	130	14	158	298	6	60	193	3	
25	1:33	5	20	9	96	14	116	256	5	42	179	3	neked eye=lc
26		-	-	-	-	-	-	-	-	-	-	-	C
27	3:47	3	12	8	46	11	58	168	3	20	105	1	- 2
28	0:14	5	30	10	51	15	81	231	6	29	108	3	neked eye=lc
29		-	-	-	-	-	-	-	-	-	-	-	
30	2:04	3	16	3	26	6	42	102	3	25	97	3	R

Sum 1469 2317 3786 1545 2939

Mean 77.3 121.9 199.3 81.3 k=0.776

Days 19 55.7 87.8 143.5

8cm Refractor X57 Projection 15cm
 POLAR FACULA
 N 0.44 S 0.06
 0.50

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1980 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	3	9	7	32	10	41	141	4	25	101	2	
2		-	-	-	-	-	-	-	-	-	-	-	R
3	1:19	3	21	5	37	8	58	138	2	19	97	3	
4	1:08	2	26	6	28	8	54	134	2	27	85	3	
5	1:56	3	23	4	22	7	45	115	3	32	96	3	
6	- 58	5	32	4	15	9	47	137	2	6	98	2	
7		-	-	-	-	-	-	-	-	-	-	-	R
8	4:33	3	48	2	5	5	53	103	0	0	82	- 3	
9		-	-	-	-	-	-	-	-	-	-	-	R
10	3:03	3	21	4	14	7	35	105	2	12	86	2	
11		-	-	-	-	-	-	-	-	-	-	-	R
12	1:28	2	26	3	18	5	44	94	3	19	98	1 - 2	
13		-	-	-	-	-	-	-	-	-	-	-	M
14		-	-	-	-	-	-	-	-	-	-	-	M
15		-	-	-	-	-	-	-	-	-	-	-	M
16	2:03	5	36	5	74	10	110	210	2	62	198	2	
17	3:24	7	43	7	93	14	136	276	5	83	211	3	
18		-	-	-	-	-	-	-	-	-	-	-	C
19		-	-	-	-	-	-	-	-	-	-	-	M
20		-	-	-	-	-	-	-	-	-	-	-	M
21	4:43	8	54	9	77	17	131	301	9	73	217	2	
22	0:56	5	35	11	73	16	108	268	8	54	202	- 3	
23		-	-	-	-	-	-	-	-	-	-	-	M
24		-	-	-	-	-	-	-	-	-	-	-	R
25	0:06	7	22	7	40	14	62	202	4	31	151	3	
26	1:50	6	18	6	24	12	42	162	2	14	138	- 3	
27	0:23	5	23	4	30	9	53	143	2	10	117	3	
28	0:24	5	23	5	24	10	47	147	2	7	127	3	
29	4:44	5	18	5	16	10	34	134	4	17	118	2	
30		-	-	-	-	-	-	-	-	-	-	-	R
31	0:37	5	16	6	9	11	25	135	7	16	81	5	

Sum 1314 1631 2945 1137 2307

Mean 73.0 90.6 163.6 63.2

Days 18 52.6 65.2 117.8
 POLAR FACULA
 N S
 3cm Refractor X67 Projection 15cm 0.57 0.00
 0.57

K=0.783

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1980 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g-f			Cent.		Seeing		Remarks
		g	f	g	f	g	f	R	g	f	5	1	
1	3h10m	5	9	4	5	9	14	104	3	7	2	3	
2	2:09	3	6	4	7	7	13	83	1	2	4		
3		-	-	-	-	-	-	-	-	-	-	-	R
4		-	-	-	-	-	-	-	-	-	-	-	C
5	0:28	2	5	3	8	5	13	63	2	3	3		
6	3:15	3	9	4	13	7	22	92	2	9	2	3	
7		-	-	-	-	-	-	-	-	-	-	-	M
8		-	-	-	-	-	-	-	-	-	-	-	M
9	2:39	5	23	4	27	9	50	140	5	39	2	3	
10		-	-	-	-	-	-	-	-	-	-	-	M
11	2:35	5	37	7	40	12	77	197	3	20	2	3	
12	2:52	7	43	7	31	14	74	214	3	4	2	3	
13	3:17	8	54	6	23	14	77	217	6	32	3		
14		-	-	-	-	-	-	-	-	-	-	-	M
15	0:03	8	49	8	30	16	79	239	4	46	2		
16		-	-	-	-	-	-	-	-	-	-	-	R
17		-	-	-	-	-	-	-	-	-	-	-	M
18	4:02	8	82	5	21	13	103	233	7	58	2		
19		-	-	-	-	-	-	-	-	-	-	-	M
20		-	-	-	-	-	-	-	-	-	-	-	R
21		-	-	-	-	-	-	-	-	-	-	-	C
22		-	-	-	-	-	-	-	-	-	-	-	R
23		-	-	-	-	-	-	-	-	-	-	-	R
24		-	-	-	-	-	-	-	-	-	-	-	M
25	1:13	7	60	3	9	10	69	169	6	21	3		
26		-	-	-	-	-	-	-	-	-	-	-	R
27	3:55	5	29	5	26	10	55	155	4	25	3		
28	0:07	4	29	3	24	7	53	123	2	22	4		
29		-	-	-	-	-	-	-	-	-	-	-	C
30		-	-	-	-	-	-	-	-	-	-	-	C
31		-	-	-	-	-	-	-	-	-	-	-	R

Sum 1135 894 2029 768 1636

Mean 87.3 68.8 156.1 59.1 $k=0.806$

Days 13 62.9 49.5 112.4
POLAR FACULA
N S

Scm Refractor X67 Projection 15cm 0.58 0.00
0.58

MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1930 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	4h09m	8	46	6	73	14	119	259	4	80	3	neked eye=1c
2	1:47	9	63	5	62	14	125	265	4	76	3	neked eye=1c
3	1:27	9	76	5	60	14	136	276	5	97	4	neked eye=2c
4	2:36	8	87	4	58	12	145	265	5	102	3 - 4	neked eye=2c
5	1:50	7	87	4	45	11	132	242	6	64	2 - 3	
6		-	-	-	-	-	-	-	-	-		R
7		-	-	-	-	-	-	-	-	-		C
8		-	-	-	-	-	-	-	-	-		R
9		-	-	-	-	-	-	-	-	-		C
10		-	-	-	-	-	-	-	-	-		R
11	3:09	7	50	4	12	11	62	172	1	12	3	
12	3:41	5	39	5	17	10	56	156	4	33	3	
13	3:57	5	43	6	19	11	62	172	5	47	4	
14	2:00	5	33	3	20	8	53	133	4	39	4	
15	2:24	4	17	4	16	8	33	113	6	26	3	
16	4:37	6	19	4	16	10	35	135	5	27	3	
17	4:12	3	11	5	32	8	43	123	3	28	2 - 3	
18	3:20	4	11	5	32	9	43	133	5	33	2	
19	4:50	5	19	6	44	11	63	173	2	11	4	
20		-	-	-	-	-	-	-	-	-		R
21		-	-	-	-	-	-	-	-	-		M
22	4:50	4	41	7	46	11	87	197	3	38	3	
23	4:03	5	60	4	32	9	92	182	4	58	2	
24		-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-		C
26		-	-	-	-	-	-	-	-	-		C
27		-	-	-	-	-	-	-	-	-		R
28	3:52	6	38	6	33	12	71	191	2	5	2 - 3	
29		-	-	-	-	-	-	-	-	-		M
30	4:02	8	44	4	17	12	61	181	4	24	2	
Sum			1864		1504			3368		1520		
Mean			103.6		83.6			187.1		84.4		

Days 18

8cm Refractor X67 Projection 15cm

POLAR FACULA

N S

0.22 0.06

0.28

MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1980 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	1h15m	7	45	4	13	11	53	168	6	26	2	
2	3:27	7	44	2	8	9	52	142	5	33	2	
3	3:42	7	39	3	10	10	49	149	4	32	2 - 3	
4	0:26	8	34	4	13	12	47	167	6	29	4 - 5	
5												
6												M
7												R
8	0:01	5	42	6	30	11	72	182	2	4	4	
9	5:22	3	44	8	51	11	95	205	4	32	2	
10												C
11												C
12												C
13												R
14												R
15	3:58	6	54	8	94	14	148	288	5	84	3	
16												C
17	3:01	5	21	7	50	12	71	191	3	16	2 - 3	
18												M
19												R
20												R
21												R - C
22	3:01	4	30	6	61	10	91	191	5	53	3	neked eye=lb
23	3:24	3	27	5	65	8	92	172	5	61	2 - 3	neked eye=lb
24												C
25												R - C
26	2:10	3	10	5	51	8	61	141	3	12	2	
27	4:39	3	17	4	45	7	62	132	1	6	2	
28	3:59	7	46	4	32	11	73	188	4	29	2	
29	4:35	9	46	4	23	13	69	199	8	45	1 - 2	
30	1:27	11	69	4	31	15	100	250	10	82	3 - 4	
31	3:42	11	77	2	34	13	111	241	6	66	1 - 2	

Sum 1635 1371 3006 1380

Mean 102.2 85.7 187.9 86.3

Days 16 73.6 61.7 135.3

8cm Refractor X67 Projection 15cm	POLAR FACULA	
	N	S
	0.63	0.00
	0.63	

MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1980 Observer - K. Fujimori Sawa 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	14:19m	12	84	2	22	14	106	246	6	47	4	
2		-	-	-	-	-	-	-	-	-	-	M
3	2:48	9	97	4	19	13	116	246	6	53	2	neked eye=1c
4		-	-	-	-	-	-	-	-	-	-	M
5	3:31	8	121	4	22	12	143	263	6	129	3	neked eye=1b
6	4:23	5	91	3	45	8	137	217	5	93	2 - 3	neked eye=1b
7		-	-	-	-	-	-	-	-	-	-	C
8	3:01	5	64	3	84	8	148	228	4	89	2	neked eye=1c
9	0:50	4	47	3	92	7	139	209	4	35	1 - 2	neked eye=2c
10	3:53	4	31	5	84	9	115	205	4	71	2	neked eye=1b
11	1:10	4	21	3	99	7	120	190	2	69	3	neked eye=1b
12	4:25	2	18	3	95	5	113	163	1	77	3	neked eye=1a
13	4:53	2	7	2	70	4	77	117	1	61	3 - 4	neked eye=1b
14	1:35	3	16	3	70	6	86	146	2	17	2	neked eye=1b
15	1:30	3	20	2	58	5	78	128	2	11	3	neked eye=1c
16		-	-	-	-	-	-	-	-	-	-	M
17		-	-	-	-	-	-	-	-	-	-	C
18	1:55	6	63	3	13	9	76	166	5	40	4	
19	3:59	5	65	3	8	8	73	153	4	31	2 - 3	
20	1:25	5	71	3	6	8	77	157	6	42	3	
21		-	-	-	-	-	-	-	-	-	-	
22		-	-	-	-	-	-	-	-	-	-	C - R
23	2:40	5	53	3	9	8	62	142	4	42	2 - 3	C
24	3:45	5	46	4	12	9	58	148	3	31	4	
25		-	-	-	-	-	-	-	-	-	-	C
26	3:52	7	42	4	16	11	58	168	2	9	3 - 4	
27	0:44	10	38	6	28	16	66	226	6	19	4	
28		-	-	-	-	-	-	-	-	-	-	C
29	3:46	8	59	3	24	11	83	193	4	47	3 - 4	
30		-	-	-	-	-	-	-	-	-	-	C
Sum		2174		1537			3711		1782			
Mean		108.7		76.9			185.6		89.1			

Days 20

8cm Refractor X67 Projection 15cm

POLAR FACULA

N	S
0.60	0.10
0.70	

78.3 55.3 133.6

MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1980 Observer - K. Fujimori Suwa City, Nagano

Date	Time U. T.	N		S		Total 10g+f			Cent.		Sesing		Remarks
		g	f	g	f	g	f	R	g	f	5	1	
1	5h14m	8	-	2	-	10	-	-	5	-	-	-	M
2	4:44	10	45	5	38	15	83	233	8	59	3	-	
3	1:50	8	32	8	57	16	89	249	10	67	3	-	
4	4:13	6	22	5	49	11	71	181	5	56	2	-	
5	3:23	5	20	4	40	9	60	150	4	31	2	-	
6	2:17	3	13	4	39	7	52	122	3	13	3	-	
7	4:17	2	6	4	33	6	39	99	3	6	2	3	
8	3:09	3	6	7	25	10	31	131	4	7	3	-	
9	2:01	3	7	8	32	11	39	149	6	20	3	-	
10	2:32	5	22	7	29	12	51	171	6	24	4	-	
11	4:38	5	35	6	38	11	73	183	7	63	3	-	
12		-	-	-	-	-	-	-	-	-	-	-	R
13		-	-	-	-	-	-	-	-	-	-	-	C
14		-	-	-	-	-	-	-	-	-	-	-	C
15	5:02	5	90	7	24	12	114	234	4	13	1	-	nekcd eye=10
16	4:51	5	83	6	24	11	107	217	6	50	1	-	nekcd eye=10
17	2:53	7	100	4	24	11	124	234	6	91	2	-	nekcd eye=10
18	3:13	7	99	5	33	12	132	252	6	91	2	-	nekcd eye=10
19	4:42	7	63	3	24	10	87	187	5	58	1	-	
20		-	-	-	-	-	-	-	-	-	-	-	C
21		-	-	-	-	-	-	-	-	-	-	-	M
22	4:03	8	56	5	33	13	89	219	6	53	2	-	
23		-	-	-	-	-	-	-	-	-	-	-	C
24		-	-	-	-	-	-	-	-	-	-	-	S
25	1:45	9	53	8	51	17	104	274	6	44	4	-	
26	2:21	7	40	7	54	14	94	234	5	16	2	-	
27		-	-	-	-	-	-	-	-	-	-	-	C
28		-	-	-	-	-	-	-	-	-	-	-	C
29	2:21	9	53	6	80	15	133	283	8	103	2	-	
30	4:59	8	51	6	70	14	121	261	10	112	2	-	
31	1:13	10	51	6	60	16	111	271	9	80	3	4	

Sum 2267 2067 4334 2327

Mean 108.0 98.4 206.4 110.8

Days 21 77.7 70.9 148.6

3cm Refractor X67 Projection 15cm

POLAR FACULA	
N	S
0.32	0.00
0.32	