

# MONTHLY REPORT OF SUNSPOT OBSERVATION

JANUARY 1972 Observer: K. Fujimori Suwa, Nagano N 38° 20' 4"  
E 136° 21' 12"

Date	Time		N		S		Total		Facula		Cent.		Soiling	Remarks			
	U.	T.	g	f	g	f	g	f	10g+f	E	W	g			f	5-1	
1														C-R			
2	3 <sup>h</sup> 00 <sup>m</sup>		1	5	5	13	6	18	78	2	1	3	13	3	52		
3	4:02		1	5	5	15	6	20	80	5	1	3	10	4-5	55		
4	2:50		1	3	4	13	5	16	66	3	1	1	2	2	50		
5																	
6	3:12		3	16	3	6	6	22	82	2	3	1	1	2	R	57	
7	3:30		3	14	2	5	5	19	69	3	4	1	3	4-5	59		
8	3:13		2	9	3	11	5	20	70	3	4	1	5	4-5	50		
9	1:50		1	1	3	13	4	14	54	3	4	1	3	5	39		
10																	
11															C		
12	3:11		0	0	2	32	2	32	52	1	3	2	32	2	R	25	
13															C		
14	3:18		0	0	4	16	4	16	56	2	3	1	7	2		45	
15															S		
16	3:16		1	5	2	22	3	27	57	3	2	0	0	3		47	
17	0:40		1	7	3	38	4	45	85	3	2	2	3	3		50	
18	3:17		1	4	3	49	4	53	93	2	3	3	19	2		60	
19	3:15		1	3	1	55	2	58	78	1	2	2	58	2-3		61	
20																	
21	3:16		2	18	2	46	4	64	104	1	0	3	62	3-4		78	
22	3:18		2	15	3	42	5	57	107	1	2	2	34	1		89	
23																M	
24																C	
25																C	
26	3:20		3	6	4	46	7	52	122	3	1	3	27	3		92	
27	3:20		4	10	4	40	8	50	130	4	2	2	17	2-3		96	
28	3:21		3	9	6	38	9	47	137	2	2	3	21	3		108	
29	3:18		3	8	6	29	9	37	127	2	2	4	16	4		115	
30	3:50		2	5	5	24	7	29	99	2	3	3	22	4		70	
31																M	
Sum			493		1,253		1,746					765					1,298
Mean			24.7		62.7		87.3	87.3				38.3					k=0.743

Days 20 80<sup>mm</sup> Refractor x67 projection 15<sup>cm</sup>

7 8 9 10 11 12 ① 2 3 4 5 6 7

$26311 \div 251 = 104.8$   
 $N 10752 = 42.8$   
 $S 15559 = 62.0$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

## FEBRUARY 1972 Observer. K. Fujimori Suva, Nagano

N 138° 7' 20"  
E + 36° 2' 12"

Date	Time U. T.	N		S		Total		10g+f	Facula		Cent.		Seeing 5-1	Remarks
		g	f	g	f	g	f		E	W	g	f		
1		-	-	-	-	-	-	-	-	-	-	-	-	R
2	3 <sup>h</sup> 16 <sup>m</sup>	3	8	2	14	5	22	72	2	2	3	12	1~2	S2
3		-	-	-	-	-	-	-	-	-	-	-	-	C
4		-	-	-	-	-	-	-	-	-	-	-	-	S
5	3:20	2	20	2	7	4	27	67	1	4	1	9	3	49
6		-	-	-	-	-	-	-	-	-	-	-	-	S
7	3:12	1	2	3	18	4	20	60	1	2	2	10	3	49
8	3:11	1	2	5	21	6	23	83	3	3	3	7	5	59
9		-	-	-	-	-	-	-	-	-	-	-	-	C
10		-	-	-	-	-	-	-	-	-	-	-	-	S
11		-	-	-	-	-	-	-	-	-	-	-	-	C
12	3:24	2	13	2	26	4	39	79	4	2	1	16	4	62
13	1:30	2	21	3	30	5	51	101	7	2	2	21	2-3	73
14	3:21	2	11	5	26	7	37	107	3	1	4	18	3-4	89
15	3:23	2	7	6	69	8	76	156	3	2	4	46	4-5	108
16		-	-	-	-	-	-	-	-	-	-	-	-	C
17	3:25	4	25	7	82	11	107	217	2	1	5	51	3	137
18	3:22	5	47	5	84	10	131	231	1	3	5	58	3	146
19		-	-	-	-	-	-	-	-	-	-	-	-	C
20	2:46	5	75	6	64	11	139	249	2	3	4	58	2	肉眼黒点 = 1159
21	3:23	3	78	6	46	9	124	214	2	3	5	95	1~2	" = 1156
22	3:24	3	79	5	38	8	117	197	3	3	3	89	1	" = 1167
23		-	-	-	-	-	-	-	-	-	-	-	-	C
24	3:23	2	71	3	44	5	115	165	1	1	3	87	2	肉眼黒点 = 2120
25	3:20	3	50	2	37	5	87	137	1	2	3	32	2	" = 193
26		-	-	-	-	-	-	-	-	-	-	-	-	R
27		-	-	-	-	-	-	-	-	-	-	-	-	C
28		-	-	-	-	-	-	-	-	-	-	-	-	M
29	3:18	3	13	5	35	8	48	128	2	2	3	16	4	91
Sum		752		1311		2263					1135			1610
Mean		59.5		81.9		141.4		141.4			70.9			K=0.711

Days 16 80<sup>mm</sup> Refractor x67 projection 15<sup>cm</sup>

8 9 10 11 12 / ② 3 4 5 6 7 8

$$25714 \div 245 = 105.0$$

$$N 10424 = 42.5$$

$$S 15290 = 62.4$$

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 MARCH 1972 Observer. K. Fujimori Suwa, Nagano

λ 138° 3' 20"  
 φ +36° 2' 12"

Date	Time		N		S		Total		10g+1	Facula		Cent.		Remarks	
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1	3 <sup>h</sup>	14 <sup>m</sup>	1	17	5	28	6	45	105	3	2	3	28	2	74
2	3:	20	2	19	5	39	7	58	128	3	2	2	14	2	89
3	3:	18	2	13	3	44	5	57	107	2	4	2	14	3	96
4	3:	20	3	12	4	37	7	49	119	2	1	3	14	2	肉眼黒点 = 1 84
5	3:	13	2	8	5	55	7	63	133	1	2	4	21	2-3	" = 1 72
6	3:	13	1	3	3	49	4	52	92	2	1	3	45	2	" = 1 84
7	3:	20	2	5	3	76	5	81	131	2	2	3	77	3	" = 1 74
8			-	-	-	-	-	-	-	-	-	-	-	-	M
9	3:	18	2	18	4	58	6	76	136	3	2	2	52	2	肉眼黒点 = 1 81
10	3:	22	2	24	4	34	6	58	118	-	-	2	16	1-2	81
11	3:	20	2	26	3	35	5	61	111	3	3	1	5	2	88
12	3:	54	3	42	3	28	6	70	130	3	2	3	20	3	80
13			-	-	-	-	-	-	-	-	-	-	-	-	M
14	3:	16	4	51	4	14	8	65	145	2	3	4	49	2	104
15	3:	20	6	63	4	12	10	75	175	2	1	4	60	2	114
16	3:	18	4	54	3	8	7	62	132	1	2	4	36	2	104
17			-	-	-	-	-	-	-	-	-	-	-	-	M
18	3:	20	5	39	4	27	9	66	156	2	2	4	21	3	110
19	3:	53	5	30	5	35	10	65	165	2	3	5	46	3	112
20			-	-	-	-	-	-	-	-	-	-	-	-	R
21			-	-	-	-	-	-	-	-	-	-	-	-	M
22	3:	20	2	42	3	28	5	70	120	1	1	3	42	2-3	113
23			-	-	-	-	-	-	-	-	-	-	-	-	R
24			-	-	-	-	-	-	-	-	-	-	-	-	R-c
25	3:	14	4	51	4	18	8	69	149	2	2	3	40	3	112
26			-	-	-	-	-	-	-	-	-	-	-	-	R
27	3:	20	2	13	1	4	3	17	47	3	3	0	0	3-4	84
28	3:	10	1	7	2	3	3	10	40	2	3	0	0	4-5	25
29			-	-	-	-	-	-	-	-	-	-	-	-	c
30			-	-	-	-	-	-	-	-	-	-	-	-	R
31	3:	14	0	0	4	19	4	19	59	1	2	1	2	3	37
Sun				1087		1411		2498					1162		
Mean				51.8		67.2		119.0	119.0				55.3		

Days 21 80<sup>mm</sup> Refractor x67 projection 15<sup>cm</sup> 1728.

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

k=0.692

$25854 \div 244 = 106.0$

N 10497 = 43.0  
 S 15357 = 62.9

# MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1972 Observer: K. Fujimori Suwa, Nagano

λ 138° 20"  
φ +36° 2' 12"

Date	Time		N		S		Total		Facula		Cent.		Grouping	Remarks	
	U	T	g	f	g	f	g	f	E	W	g	f			
1	3 <sup>h</sup> 13 <sup>m</sup>		0	0	3	17	3	17	47	1	2	2	7	2	40
2	3: 20		1	6	4	20	5	26	76	1	1	4	21	2-3	46
3	3: 20		1	6	3	10	4	16	56	2	1	4	16	1-2	43
4	0: 00		1	7	3	12	4	19	59	3	1	3	18	3	38
5	3: 12		1	5	3	16	4	21	61	3	2	3	19	4-5	32
6			-	-	-	-	-	-	-	-	-	-	-	-	c
7			-	-	-	-	-	-	-	-	-	-	-	-	c
8			-	-	-	-	-	-	-	-	-	-	-	-	c
9			-	-	-	-	-	-	-	-	-	-	-	-	s
10	3: 20		1	2	5	63	6	65	125	2	1	4	47	2	88
11			-	-	-	-	-	-	-	-	-	-	-	-	M
12			-	-	-	-	-	-	-	-	-	-	-	-	c
13	3: 40		2	5	4	71	6	76	136	3	4	4	73	2	78
14	3: 50		2	5	3	42	5	47	97	3	2	2	39	3	65
15			-	-	-	-	-	-	-	-	-	-	-	-	c
16	3: 24		1	2	6	40	7	42	112	3	4	3	20	3-4	60
17	3: 14		1	2	4	37	5	39	89	1	2	2	12	2	55
18	2: 30		1	3	5	45	6	48	108	1	2	3	12	4	59
19	3: 00		2	4	3	38	5	42	92	1	1	3	22	2	62
20			-	-	-	-	-	-	-	-	-	-	-	-	c
21	3: 21		3	10	5	52	8	62	142	3	3	3	52	2	85
22	3: 18		3	14	5	41	8	55	135	2	3	4	38	3	85
23			-	-	-	-	-	-	-	-	-	-	-	-	c
24	3: 16		2	11	5	37	7	48	118	3	4	4	32	2-3	82
25	3: 17		4	24	5	32	9	56	146	1	3	4	27	4-5	88
26			-	-	-	-	-	-	-	-	-	-	-	-	c
27	3: 20		4	24	2	6	6	30	90	1	2	3	13	1-2	62
28	3: 14		3	26	2	4	5	30	80	0	2	2	5	2	66
29	3: 11		3	17	1	1	4	18	58	1	2	1	4	3	38
30	3: 10		2	3	0	0	2	3	23	1	2	1	1	2	22
Sum				556		1294		1850					1068		1194
Moan				27.8		64.7		92.5	92.5				53.4		k=0.645

Days 20 80<sup>mm</sup> Refractor x67 projection 15cm

10 11 12 1 2 3 ⊕ 5 6 7 8 9 10

$$27158 \div 252 = 107.8$$

$$N 10.567 = 41.9$$

$$S 16.591 = 65.8$$

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 MAY 1972 Observer. K. Fujimori Suwa, Nagano  $\lambda 138^{\circ} 7' 20''$   
 $\mu + 36^{\circ} 12''$

Date	Time		N		S		Total		Facula		Cent.		Sunspot 5-1	Remarks	
	U.	T.	2	1	1	1	2	3	10%	W	2	3			
1	2 <sup>h</sup>	47 <sup>m</sup>	1	2	1	2	2	4	24	2	3	0	0	3	17
2	3:	50	1	2	2	5	3	7	37	5	3	0	0	1-2	39
3	3:	30	1	1	2	8	3	9	39	4	3	0	0	3	32
4			-	-	-	-	-	-	-	-	-	-	-		C
5	3:	30	1	1	1	21	2	22	42	3	1	0	0	2-3	49
6	3:	12	1	3	2	47	3	50	80	3	1	1	9	3	68
7	3:	18	3	16	3	42	6	58	118	3	1	6	53	3-4 肉眼黒点 = 1	79
8			-	-	-	-	-	-	-	-	-	-	-		C
9			-	-	-	-	-	-	-	-	-	-	-		R
10	3:	23	3	44	2	42	5	86	136	4	1	3	76	4	91
11	3:	50	4	57	2	33	6	90	150	4	2	3	21	4-5	79
12	4:	13	3	34	3	46	6	80	140	4	5	1	1	3	92
13			-	-	-	-	-	-	-	-	-	-	-		C
14			-	-	-	-	-	-	-	-	-	-	-		C
15			-	-	-	-	-	-	-	-	-	-	-		C
16	4:	10	4	8	4	120	8	128	208	2	2	3	94	2	125
17	3:	50	4	18	4	102	8	120	200	2	1	5	80	3	140
18	3:	20	3	21	5	93	8	114	194	1	1	6	56	2 肉眼黒点 = 1	133
19			-	-	-	-	-	-	-	-	-	-	-		C
20			-	-	-	-	-	-	-	-	-	-	-		M
21	2:	50	1	22	2	54	3	56	106	0	3	2	61	1-2 肉眼黒点 = 1	89
22	3:	20	1	21	3	47	4	68	108	1	3	3	63	3 " = 1	77
23	2:	46	1	14	4	32	5	46	96	1	2	2	5	2 " = 1	59
24	2:	50	2	9	2	19	4	28	68	1	3	0	0	2	58
25	6:	50	2	20	2	16	4	36	76	1	2	0	0	5	56
26	3:	20	2	21	2	20	4	41	81	-	-	0	0	2	55
27			-	-	-	-	-	-	-	-	-	-	-		C
28	4:	06	2	48	1	1	3	49	79	2	1	1	3	4	44
29	3:	18	2	59	1	6	3	65	95	3	1	2	62	4	58
30			-	-	-	-	-	-	-	-	-	-	-		C
31	3:	20	3	41	3	9	6	50	110	3	2	3	40	2	85
Sun:			912		1275		2187				1034				1525
Mean			43.4		60.7		104.1		104.1		48.2				

Days 21 80<sup>mm</sup> Refractor x67 projection 15<sup>cm</sup>  $K=0.697$

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

$27418 \div 257 = 106.7$

$N 9944 = 38.7$   
 $S 17474 = 68.0$



# MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1972 Observer. K. Fujimori Suwa, Nagano

N. 138° 7' 25"  
E. +35° 2' 12"

Date	Time	N		S		Total		10g+	Faculae		Group		Remarks	
		g	+	g	+	g	+		g	+	g	+		
1	3:13 <sup>m</sup>	5	57	1	2	6	59	119	1	1	3	48	3	
2	3:06	4	63	2	6	6	69	129	3	1	4	55	4	
3	3:20	5	49	2	12	7	61	131	2	1	4	42	4-5	
4		—	—	—	—	—	—	—	—	—	—	—	—	C
5		—	—	—	—	—	—	—	—	—	—	—	—	C
6		—	—	—	—	—	—	—	—	—	—	—	—	C
7		—	—	—	—	—	—	—	—	—	—	—	—	M
8	3:40	3	35	4	34	7	69	139	2	1	3	58	2	
9		—	—	—	—	—	—	—	—	—	—	—	—	R
10		—	—	—	—	—	—	—	—	—	—	—	—	R
11		—	—	—	—	—	—	—	—	—	—	—	—	R
12		—	—	—	—	—	—	—	—	—	—	—	—	R
13		—	—	—	—	—	—	—	—	—	—	—	—	R
14	3:20	3	15	6	27	9	42	132	3	2	2	8	3	
15		—	—	—	—	—	—	—	—	—	—	—	—	R
16		—	—	—	—	—	—	—	—	—	—	—	—	M
17		—	—	—	—	—	—	—	—	—	—	—	—	C
18	8:00	1	4	3	33	4	37	77	3	2	3	35	3	
19	3:13	3	12	4	34	7	46	116	3	2	5	43	3	
20	3:14	2	14	2	22	4	36	76	2	2	4	36	3	
21	3:30	4	19	3	24	7	43	113	1	1	3	24	4	
22	8:00	3	15	4	27	7	42	112	1	3	1	2	3	
23	3:30	2	11	4	11	6	22	82	2	2	0	0	3	
24		—	—	—	—	—	—	—	—	—	—	—	—	C
25	3:10	3	9	3	20	6	29	89	3	2	3	12	5	
26	7:50	3	25	5	22	8	47	127	2	1	4	27	2-3	
27		—	—	—	—	—	—	—	—	—	—	—	—	M
28	3:18	3	48	4	34	7	82	152	3	2	5	64	3	
29	3:20	2	27	4	29	6	56	116	3	2	3	18	2	
30		—	—	—	—	—	—	—	—	—	—	—	—	M
31	3:50	4	28	5	54	9	82	172	2	1	5	47	2	
Sum		931		951		1882				1029				
Mean		58.2		59.4		117.6		117.6		64.5				

Days 16 - 8<sup>cm</sup> Refractor x67 Projection 15<sup>cm</sup>

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

$$24817 \div 254 = 97.7$$

$$N9639 = 37.9$$

$$S15178 = 59.8$$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1972 Observer - K. Fujimori Suwa, Nagano  $\lambda 1387.20''$   
 $\mu + 352.12''$

Date	Time		N		S		Total		Facula		Cent.		Seeing	Remarks		
	U.	T.	g	f	g	f	g	f	E	W	g	f				5-1
1	2 <sup>h</sup>	10 <sup>m</sup>	3	21	4	55	7	76	146	2	1	3	29	2-3	肉眼黒点=1	93
2			-	-	-	-	-	-	-	-	-	-	-		M	
3	3	16	1	35	3	36	4	71	111	2	3	2	49	3-4	肉眼黒点=1	85
4			-	-	-	-	-	-	-	-	-	-	-		M	
5	3	20	1	63	5	35	6	98	158	2	1	4	92	4	"=1	93
6	3	21	1	60	4	22	5	82	132	1	1	3	65	2-3	"=1	85
7			-	-	-	-	-	-	-	-	-	-	-		M	
8	3	13	2	30	2	11	4	41	81	4	2	1	1	2-3	"=1	56
9	3	16	2	29	1	18	3	47	77	5	2	0	0	4	"=1	59
10			-	-	-	-	-	-	-	-	-	-	-		C	
11			-	-	-	-	-	-	-	-	-	-	-		C	
12			-	-	-	-	-	-	-	-	-	-	-		M	
13	2	04	3	16	2	8	5	24	74	1	3	2	6	2		55
14	3	33	2	8	3	9	5	17	67	2	2	2	9	4-5		37
15	0	30	3	7	3	9	6	16	76	3	2	4	12	2-3		39
16	1	38	3	15	2	10	5	25	75	2	1	3	14	3		57
17	3	11	2	22	2	15	4	37	77	2	1	1	7	3		62
18	3	16	3	21	2	16	5	37	87	1	2	1	10	3-4		52
19	5	50	2	15	2	16	4	31	71	2	2	2	12	3		54
20			-	-	-	-	-	-	-	-	-	-	-		C	
21			-	-	-	-	-	-	-	-	-	-	-		C	
22			-	-	-	-	-	-	-	-	-	-	-		R	
23	3	16	1	21	5	42	6	63	123	1	2	2	34	3		71
24	3	30	1	14	7	37	8	51	131	2	2	3	30	2-3		82
25			-	-	-	-	-	-	-	-	-	-	-		C	
26			-	-	-	-	-	-	-	-	-	-	-		C	
27			-	-	-	-	-	-	-	-	-	-	-		M	
28			-	-	-	-	-	-	-	-	-	-	-		M	
29	3	30	5	54	7	46	12	100	220	1	3	4	29	2		147
30	3	24	7	85	7	47	14	132	272	3	4	6	51	3		141
31	3	24	6	77	6	28	12	105	235	3	4	6	38	3		137
Sun			1073		1130		2203					978				
Mean			59.6		62.8		122.4	122.4				543				

Days 18 8<sup>cm</sup> Refractor x67 projection 15<sup>cm</sup>  $\lambda 405$

2 3 4 5 6 7 (8) 9 10 11 12 1 2  $K=0.638$

$24031 \div 251 = 95.7$   $N9683 = 38.6$   
 $514348 = 57.2$



# MONTHLY REPORT OF SUNSPOT OBSERVATION

## SEPTEMBER 1972

Observer - K. Fujimori Suwa, Nagano  $\lambda 138^{\circ} 7' 20''$   
 $\phi 36^{\circ} 2' 12''$

Date	Time		N		S		Total		Magnetic		Cent.		Remarks		
	U.	T.	+	-	+	-	+	-	E	W	+	-			
1	3 <sup>h</sup>	30 <sup>m</sup>	4	61	7	23	11	84	194	-	-	4	54	2	121
2	3:	20	5	49	5	30	10	79	179	2	2	8	54	2	91
3	4:	10	4	39	5	32	9	71	161	0	1	4	50	2-3	69
4	3:	20	4	25	4	21	8	46	126	2	2	4	33	5	77
5	3:	14	3	13	4	26	7	39	109	2	2	4	18	4-5	78
6	3:	10	3	15	5	19	8	34	114	2	2	4	22	4	73
7	3:	13	4	16	4	18	8	34	114	2	3	3	5	5	65
8	3:	12	4	21	2	16	6	37	97	1	3	2	10	2-3	65
9			-	-	-	-	-	-	-	-	-	-	-		R
10			-	-	-	-	-	-	-	-	-	-	-		R-C
11	3:	11	2	11	3	10	5	21	71	1	3	2	11	2	43
12	3:	30	1	5	2	11	3	16	46	2	1	1	5	1-2	33
13	3:	14	1	2	2	17	3	19	49	3	1	1	14	2	31
14			-	-	-	-	-	-	-	-	-	-	-		R
15			-	-	-	-	-	-	-	-	-	-	-		R
16			-	-	-	-	-	-	-	-	-	-	-		R
17	3:	00	2	6	3	13	5	19	69	1	1	3	13	4	44
18	3:	10	1	5	3	8	4	13	53	2	1	2	8	3	35
19			-	-	-	-	-	-	-	-	-	-	-		M
20	3:	13	1	6	4	13	5	19	69	3	1	1	5	2-3	44
21	4:	15	1	4	4	23	5	27	77	3	4	1	6	3	60
22	2:	33	2	6	4	35	6	41	101	2	2	2	5	4-5	69
23	3:	00	1	10	3	65	4	75	115	2	3	1	2	4-5	59
24			-	-	-	-	-	-	-	-	-	-	-		C
25			-	-	-	-	-	-	-	-	-	-	-		C
26	3:	18	2	12	3	63	5	75	125	2	2	2	54	2	78
27			-	-	-	-	-	-	-	-	-	-	-		M
28			-	-	-	-	-	-	-	-	-	-	-		M
29			-	-	-	-	-	-	-	-	-	-	-		C
30	3:	14	2	12	3	28	5	40	90	2	2	1	16	2	75
Sum				788		1171		1959				885			1210
Mean				41.5		61.6		103.1	103.1			46.6			

Days 19    8<sup>cm</sup> Refractor x67. Projection 15<sup>cm</sup>    K=0.618

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

$$23318 \div 260 = 89.7$$

N 9403 = 36.2  
 S 13915 = 53.5

# MONTHLY REPORT OF SUNSPOT OBSERVATION

OCTOBER 1972 Observer - K. Fujimori Suwa, Nagano 2138°7'20" N +138°2'12" E

Date	Time U. T.	N		S		Total		Facula		Cont.		Series 5-1	Remarks
		E	W	E	W	E	W	E	W	E	W		
1	5 <sup>h</sup> 43 <sup>m</sup>	3	16	3	22	6	38	98	2	2	28	3	70
2	3 = 18	3	16	3	14	6	30	90	3	2	21	2	65
3	4 = 36	3	27	4	19	7	46	116	3	1	9	2-3	73
4		-	-	-	-	-	-	-	-	-	-	-	C
5	3 = 40	4	9	3	13	7	22	92	2	2	14	4	67
6		-	-	-	-	-	-	-	-	-	-	-	C
7	3 = 20	2	4	4	11	6	15	75	1	2	12	2	54
8		-	-	-	-	-	-	-	-	-	-	-	M
9	2 = 52	1	3	2	3	3	6	36	1	2	2	2-3	30
10	3 = 08	2	3	1	9	3	12	42	2	2	0	3-4	24
11		-	-	-	-	-	-	-	-	-	-	-	R
12	3 = 10	1	1	1	6	2	7	27	2	4	0	3	16
13	3 = 11	0	0	1	1	1	1	11	1	2	0	2	14
14	2 = 20	0	0	0	0	0	0	0	2	2	0	2-3	8
15		-	-	-	-	-	-	-	-	-	-	-	M
16	3 = 15	2	6	2	4	4	10	50	4	2	0	3	34
17		-	-	-	-	-	-	-	-	-	-	-	C
18		-	-	-	-	-	-	-	-	-	-	-	C
19		-	-	-	-	-	-	-	-	-	-	-	C
20	3 = 30	0	0	3	37	3	37	67	3	1	15	2	内眼黒点 = 45
21	3 = 20	0	0	4	44	4	44	84	3	2	31	2-3	" = 1 53
22		-	-	-	-	-	-	-	-	-	-	-	R
23	3 = 20	0	0	7	50	7	50	120	3	5	42	2-3	内眼黒点 = 66
24	3 = 20	0	0	7	67	7	67	137	1	3	18	2-3	" = 1 81
25	3 = 24	0	0	7	84	7	84	154	2	3	19	3	91
26	2 = 20	0	0	6	90	6	90	150	2	2	18	4	内眼黒点 = 95
27	3 = 13	0	0	5	92	5	92	142	3	2	10	2	" = 1 103
28	3 = 30	2	5	6	105	8	110	190	2	2	5	92	2-3 " = 1 84
29	1 = 46	1	5	3	113	4	118	158	2	2	3	116	2 " = 1 65
30	1 = 30	1	2	4	114	5	116	166	1	2	2	105	2-3 " = 1 90
31	3 = 20	2	9	4	86	6	95	155	1	2	3	86	1 " = 1 84
Sum			376		1784		2160				1108		1312
Mean			17.1		81.1		98.2	98.2			50.4		

Days 22      8<sup>cm</sup> Refractor x67 Projection 15<sup>cm</sup>      k=0.607  
 4 5 6 7 8 9 **10** 11 12 1 2 3 4

$$22348 \div 256 = 87.3$$

$$18766 = 34.2$$

$$513582 = 53.1$$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

NOVEMBER 1972 Observer - K. Fujimori Suwa, Nagano λ 138° 20" φ +35° 2' 12"

Date	Time		N		S		Total		Facula			Cont.		Special	Remarks
	U.	T.	g	f	g	f	g	f	10pts	E	W	g	f		
1	1 <sup>h</sup>	21 <sup>m</sup>	1	2	4	77	5	79	129	2	2	4	23	2-3	肉眼観察 = 1 70
2	1=	13	1	9	3	53	4	62	102	1	2	3	13	4	肉眼観察 = 1 67
3			-	-	-	-	-	-	-	-	-	-	-		R
4			-	-	-	-	-	-	-	-	-	-	-		M
5	3=	11	0	0	3	7	3	7	37	1	2	1	5	3	19
6			-	-	-	-	-	-	-	-	-	-	-		R
7	1=	40	0	0	1	2	1	2	12	0	1	0	0	1-2	8
8	3=	12	0	0	0	0	0	0	0	0	2	0	0	1	7
9			-	-	-	-	-	-	-	-	-	-	-		M
10			-	-	-	-	-	-	-	-	-	-	-		R
11	3=	12	1	11	1	2	2	13	33	2	1	0	0	2	30
12	4=	23	1	11	2	4	3	15	45	1	2	0	0	2	26
13	1=	44	1	6	2	6	3	12	42	2	1	0	0	3	25
14	1=	24	0	0	2	6	2	6	26	1	1	0	0	1-2	27
15			-	-	-	-	-	-	-	-	-	-	-		R
16	3=	24	0	0	2	13	2	13	33	3	0	2	5	3	25
17	2=	50	1	4	2	11	3	15	45	4	2	3	15	3	32
18	3=	00	1	1	3	14	4	15	55	2	2	3	13	3-4	21
19	3=	30	0	0	3	14	3	14	44	2	1	2	9	2	36
20	3=	48	0	0	5	33	5	33	83	1	1	3	19	2	54
21	3=	58	0	0	6	37	6	37	97	2	1	3	13	1-2	58
22	3=	50	0	0	6	38	6	38	98	2	2	2	23	2-3	62
23			-	-	-	-	-	-	-	-	-	-	-		M
24	3=	20	0	0	8	49	8	49	129	1	2	3	31	1-2	65
25			-	-	-	-	-	-	-	-	-	-	-		M
26	3=	00	0	0	5	29	5	29	79	1	1	3	12	2	52
27			-	-	-	-	-	-	-	-	-	-	-		C-R
28	3=	10	1	1	5	16	6	17	77	2	1	3	10	1	58
29	3=	07	0	0	4	19	4	19	59	1	2	3	17	2	40
30			-	-	-	-	-	-	-	-	-	-	-		M
Sum				125		1100		1225					588		782
Mean				6.3		55.0		61.3	61.3				29.4		

Days 20      8<sup>cm</sup> Refractor x67      Projection 15<sup>cm</sup>      k=0.638

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

$21771 \div 258 = 84.4$        $N 8670 = 33.6$

$513101 = 50.8$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

DECEMBER 1972 Observer-K. Fujimori Suwa, Nagano λ 138° 7' 20"  
φ +35° 2' 12"

Date	Time		N		S		Total		log f	Facula		Cent.		Seeing 5-1	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1			-	-	-	-	-	-	-	-	-	-	-		S
2	3	11 <sup>m</sup>	0	0	3	9	3	9	39	0	2	1	2	1	23
3	3	41	0	0	3	15	3	15	45	0	2	1	6	2	20
4	3	10	0	0	3	11	3	11	41	2	1	1	7	4	20
5	3	09	0	0	2	5	2	5	25	1	1	1	4	2-3	18
6	3	12	1	3	1	5	2	8	28	1	3	0	0	2-3	18
7	3	16	1	11	1	2	2	13	33	2	2	0	0	1-2	24
8	3	10	1	22	1	1	2	23	43	2	3	0	0	2	33
9	3	16	1	37	0	0	1	37	47	1	2	0	0	4	42
10	5	46	1	42	2	6	3	48	78	1	0	2	4	3	5-1
11			-	-	-	-	-	-	-	-	-	-	-		M
12			-	-	-	-	-	-	-	-	-	-	-		R
13	3	18	2	38	2	23	4	61	101	1	0	3	43	1	63
14			-	-	-	-	-	-	-	-	-	-	-		M
15	3	18	2	13	3	39	5	52	102	0	1	3	37	1-2	64
16	3	18	2	12	5	33	7	45	115	2	2	4	34	2	66
17	3	52	2	5	3	26	5	31	81	2	2	2	19	1-2	76
18			-	-	-	-	-	-	-	-	-	-	-		C
19			-	-	-	-	-	-	-	-	-	-	-		C
20	3	14	2	19	2	7	4	26	66	2	3	2	22	1-2	54
21	3	16	3	32	1	2	4	34	74	3	1	1	13	1-2	70
22	3	18	3	42	1	2	4	44	84	2	0	3	41	1	5-7
23			-	-	-	-	-	-	-	-	-	-	-		C
24			-	-	-	-	-	-	-	-	-	-	-		S
25			-	-	-	-	-	-	-	-	-	-	-		C
26	3	30	3	36	1	1	4	37	77	1	2	1	8	4	32
27	3	09	2	20	1	4	3	24	54	1	3	0	0	5	31
28			-	-	-	-	-	-	-	-	-	-	-		C
29			-	-	-	-	-	-	-	-	-	-	-		R
30	3	31	1	2	1	12	2	14	34	2	2	0	0	3	29
31	3	30	1	11	3	10	4	21	61	2	2	0	0	1-2	37
Sum			625		603		1228					529			828
Mean			31.3		30.2		61.4	61.4				26.5			K=0.674

Days 20 8<sup>cm</sup> Refractor x67 Projection 15<sup>cm</sup>

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

$20424 \div 251 = 81.4$

$N 8202 = 32.7$   
 $S 12222 = 48.7$