

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 JANUARY 1973 Observer-K. Fujimori Suwa, Nagano  $\lambda 138^{\circ}7'20''$   
 $\phi +36^{\circ}2'12''$

Date	Time		N		S		Total		10g <sup>+</sup>	Facula		Cent.		Seems 5-1	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1	1 <sup>h</sup>	30 <sup>m</sup>	1	18	2	6	3	24	54	2	1	0	0	1	45
2			-	-	-	-	-	-	-	-	-	-	-		R
3	2:	34	3	43	2	5	5	48	98	2	1	3	7	2	55
4	3:	26	3	39	2	7	5	46	96	2	2	3	24	3	60
5	3:	14	2	50	3	4	5	54	104	1	2	3	18	1-2	72
6	3:	20	2	71	2	4	4	75	115	2	1	2	71	2	83
7			-	-	-	-	-	-	-	-	-	-	-		S-R
8			-	-	-	-	-	-	-	-	-	-	-		M
9	3:	18	3	35	2	4	5	39	89	2	2	1	23	2	70
10	3:	30	3	26	2	6	5	32	82	1	1	1	3	1	55
11	3:	16	3	25	2	6	5	31	81	1	3	1	4	2-3	52
12	3:	14	2	18	1	2	3	20	50	2	1	2	3	3	32
13	3:	13	1	7	2	3	3	10	40	2	1	2	3	3	35
14	3:	30	1	3	1	2	2	5	25	2	0	1	2	2-3	15
15			-	-	-	-	-	-	-	-	-	-	-		C-S
16	2:	22	1	8	1	2	2	10	30	2	1	0	0	5	11
17			-	-	-	-	-	-	-	-	-	-	-		C-S
18			-	-	-	-	-	-	-	-	-	-	-		R
19	3:	15	2	8	2	13	4	21	61	1	1	3	17	2-3	47
20	3:	16	1	9	2	13	3	22	52	1	2	2	20	2	60
21	2:	00	3	12	1	12	4	24	64	2	2	3	19	3	62
22			-	-	-	-	-	-	-	-	-	-	-		M
23	3:	18	3	16	2	13	5	29	79	1	3	2	10	2-3	60
24			-	-	-	-	-	-	-	-	-	-	-		C
25	3:	13	2	9	2	2	4	11	51	1	2	1	7	2	39
26	3:	20	1	13	1	1	2	14	34	1	0	2	14	3	27
27	3:	11	1	7	0	0	1	7	17	1	1	1	7	1-2	8
28	3:	14	1	2	0	0	1	2	12	1	1	0	0	1-2	14
29	3:	15	0	0	0	0	0	0	0	1	1	0	0	1	7
30	3:	14	2	5	0	0	2	5	25	1	1	1	3	2	16
31	3:	13	1	2	0	0	1	2	12	1	2	1	2	2	13
Sum			846		425		1271				607				938
Mean			36.8		18.5		55.3		55.3		26.4				

Days 23  $8^{\text{cm}}$  Refractor x67 projection  $15^{\text{cm}}$   
 7 8 9 10 11 12 ① 2 3 4 5 6 7  $K=0.738$   
 $18497 \div 249 = 74.3$   $N7517 = 30.2$   
 $S10980 = 44.1$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

## FEBRUARY 1973

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

Date	Time		N		S		Total		Facula		Cent.		Seeing 5-1	Remarks	
	U.	T.	g	f	g	f	g	f	100+f	E	W	g			f
1	3 <sup>h</sup>	13 <sup>m</sup>	0	0	0	0	0	0	0	2	3	0	0	2	7
2	3=	12	1	1	2	3	3	4	34	2	2	0	0	2-3	17
3			-	-	-	-	-	-	-	-	-	-	-		M
4	2=	32	1	4	1	9	2	13	33	1	2	1	4	4-5	21
5			-	-	-	-	-	-	-	-	-	-	-		C
6			-	-	-	-	-	-	-	-	-	-	-		R
7	3=	16	3	7	1	6	4	13	53	1	1	1	6	3	34
8	3=	13	2	6	0	0	2	6	26	2	1	0	0	2-3	53
9	3=	14	4	19	1	1	5	20	70	1	1	1	4	2-3	60
10	3=	16	3	19	2	5	5	24	74	2	0	3	19	2	61
11			-	-	-	-	-	-	-	-	-	-	-		M
12	3=	16	3	15	3	9	6	24	84	1	1	4	16	3	80
13	3=	18	3	21	4	14	7	35	105	1	1	4	19	2-3	83
14			-	-	-	-	-	-	-	-	-	-	-		R
15	3=	16	3	14	3	20	6	34	94	0	1	2	13	2-3	74
16	3=	17	3	6	2	25	5	31	81	1	1	2	25	3	54
17	3=	42	2	3	2	16	4	19	59	1	1	3	18	3	36
18			-	-	-	-	-	-	-	-	-	-	-		C
19			-	-	-	-	-	-	-	-	-	-	-		R
20			-	-	-	-	-	-	-	-	-	-	-		R
21	3=	14	0	0	3	17	3	17	47	1	1	1	8	2-3	31
22			-	-	-	-	-	-	-	-	-	-	-		C
23	3=	11	1	3	3	5	4	8	48	1	1	0	0	3-4	33
24			-	-	-	-	-	-	-	-	-	-	-		C
25			-	-	-	-	-	-	-	-	-	-	-		M
26	3=	14	2	18	1	2	3	20	50	2	1	2	5	2	37
27	3=	13	2	30	0	0	2	30	50	2	1	2	15	2-3	肉眼黒点 = 136
28	3=	20	2	21	1	1	3	22	52	-	-	2	21	1-2	" = 136
Sum			537		423		960	960				453			753
Mean			31.6		24.9		56.5	56.5				26.6			

Days 17    8cm Refractor x57 Projection 15cm

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

$k=0.784$

$17508 \div 258 = 67.9$

$N 7147 = 27.7$

$S 10361 = 40.2$

MONTHLY REPORT OF SUNSPOT OBSERVATION

MARCH 1973 Observer-K. Fujimoto, Suwa, Nagano

$\lambda 138^{\circ} 7' 20''$   
 $\varphi +36^{\circ} 2' 12''$

Date	Time U. T.	N		S		Total		log+f	Facula		Cent.		Seeing 5-1	Remarks
		g	f	g	f	g	f		E	W	g	f		
1	3h 20 <sup>m</sup>	2	25	1	8	3	33	63.0	1	2	28	2	肉眼黒点=1	40
2	3=18	2	20	1	8	3	28	58.1	1	1	19	2	" = 1	38
3	3=34	1	15	1	2	2	17	37.2	2	1	15	3	" = 1	35
4	3=38	1	5	2	3	3	8	38.2	2	0	0	1-2		32
5	3=13	1	5	1	2	2	7	27.2	1	0	0	2		22
6	3=14	2	4	1	7	3	11	41.2	1	0	0	2		32
7		-	-	-	-	-	-	-	-	-	-	-		M
8	3=30	1	4	2	11	3	15	45-	-	1	5	2		50
9	3=16	2	5	3	23	5	28	78.2	0	3	13	2-3		53
10	3=20	2	9	3	39	5	48	98.1	0	3	19	2-3		67
11	3=30	1	13	3	39	4	52	92.1	0	3	30	2		69
12		-	-	-	-	-	-	-	-	-	-	-		C
13	3=20	1	20	3	51	4	71	111.2	2	2	46	2-3		79
14	3=18	1	7	3	55	4	62	102.1	1	2	52	2-3		78
15	3=17	2	11	4	51	6	62	122.1	2	4	51	2		73
16	3=16	2	8	4	51	6	59	119.0	2	4	25	4-5		64
17	3=12	0	0	2	31	2	31	51.0	1	0	0	2-3		52
18	3=10	1	2	2	26	3	28	58.1	2	0	0	3		44
19	3=14	1	8	2	16	3	24	54.1	1	0	0	3		34
20	3=15	1	16	1	2	2	18	38.2	2	0	0	2-3		23
21	5=44	1	22	0	0	1	22	32.1	2	1	22	3		20
22	3=14	2	19	0	0	2	19	39.1	1	1	17	3		30
23	3=11	2	20	0	0	2	20	40.1	0	1	16	2		37
24	2=42	2	20	0	0	2	20	40.1	0	0	0	2		29
25		-	-	-	-	-	-	-	-	-	-	-		M
26	3=15	2	18	0	0	2	18	38.2	1	1	9	2		23
27	3=13	2	13	1	4	3	17	47.1	1	1	11	3		32
28		-	-	-	-	-	-	-	-	-	-	-		C
29		-	-	-	-	-	-	-	-	-	-	-		R
30	3=16	2	13	1	39	3	52	82.1	1	1	11	2-3		50
31		-	-	-	-	-	-	-	-	-	-	-		R
Sum		672		848		1550				709				1106
Mean		26.9		35.1		62.0		62.0		28.4				

Days 25 8<sup>cm</sup> Refractor x67 projection 15<sup>cm</sup>

9 10 11 12 1 2 (3) 4 5 6 7 8 9  $K=0.714$

$16824 \div 258 = 65.2$

$N 6955 = 27.0$   
 $S 9869 = 38.3$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1973 Observer-K. Fujimori Suwa, Nagano

$\lambda 138^{\circ} 7' 20''$   
 $\phi +36^{\circ} 2' 12''$

Date	Time		N		S		Total		log r	Facula		Cent.		Seeing	Remarks
	U.	T.	g	+	g	+	g	+		F	w	g	+		
1	3 <sup>h</sup>	58 <sup>m</sup>	3	30	1	50	4	80	120	2	1	1	50	4	65
2			-	-	-	-	-	-	-	-	-	-	-	-	C
3			-	-	-	-	-	-	-	-	-	-	-	-	M
4			-	-	-	-	-	-	-	-	-	-	-	-	R
5			-	-	-	-	-	-	-	-	-	-	-	-	C
6	3=	20	1	16	4	52	5	68	118	1	2	2	20	3	75
7	3=	20	1	13	5	38	6	51	111	1	1	3	28	4	76
8	3=	30	1	6	5	75	6	81	141	0	1	3	39	5	71
9	3=	00	1	3	5	78	6	81	141	0	1	5	78	2	肉眼黒点=168
10			-	-	-	-	-	-	-	-	-	-	-	-	R
11	3=	20	1	1	4	71	5	72	122	1	2	3	53	2	82
12			-	-	-	-	-	-	-	-	-	-	-	-	R
13	3=	16	0	0	2	42	2	42	62	2	2	1	35	2-3	41
14	3=	14	0	0	1	29	1	29	39	0	1	0	0	1-2	37
15			-	-	-	-	-	-	-	-	-	-	-	-	R
16			-	-	-	-	-	-	-	-	-	-	-	-	C
17			-	-	-	-	-	-	-	-	-	-	-	-	R
18	3=	10	1	2	1	1	2	3	23	1	0	0	0	2	15
19	3=	16	1	6	1	7	2	13	33	1	0	0	0	2-3	32
20	3=	17	1	15	1	17	2	32	52	1	0	1	17	2	42
21			-	-	-	-	-	-	-	-	-	-	-	-	C
22			-	-	-	-	-	-	-	-	-	-	-	-	M
23	3=	20	1	48	2	18	3	66	96	1	0	2	57	3	72
24			-	-	-	-	-	-	-	-	-	-	-	-	C
25	3=	20	1	35	3	30	4	65	105	2	1	1	35	3-4	67
26	5=	53	1	39	2	42	3	81	111	2	1	2	46	4-5	67
27	3=	20	1	33	2	38	3	71	101	1	1	2	38	1-2	67
28	3=	20	1	25	1	40	2	65	85	1	1	1	40	4-5	60
29			-	-	-	-	-	-	-	-	-	-	-	-	M
30	3=	18	1	8	3	20	4	28	68	1	1	3	20	3	42
Sum				450		1078		1528					856		959
Mean				26.5		63.4		89.9	89.9				50.4		

Days 17 8<sup>cm</sup> Refractor x57 Projection 15<sup>cm</sup> K=0.628  
 10 11 12 1 2 3 (4) 5 6 7 8 9 10  
 $15661 \div 255 = 61.4$   
 $N 6553 = 25.7$   
 $S 9108 = 35.7$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1973

Observer-K. Fujimori

Suwa, Nagano

$\lambda$  138°20"  
 $\phi$  +36°2'12"

Date	Time		N		S		Total		log r <sub>f</sub>	Facula		Cent.		Occina <sub>5-1</sub>	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1	3 <sup>h</sup>	40 <sup>m</sup>	1	2	2	11	3	13	43	1	0	1	2	4	24
2			-	-	-	-	-	-	-	-	-	-	-	-	R
3	3	20	0	0	2	23	2	23	43	1	1	0	0	1	64
4			-	-	-	-	-	-	-	-	-	-	-	-	C
5	3	46	0	0	4	65	4	65	105	2	1	2	37	2	92
6	3	32	0	0	3	71	3	71	101	1	1	2	67	2-3	68
7	3	16	1	4	3	87	4	91	131	0	1	3	88	3	82
8			-	-	-	-	-	-	-	-	-	-	-	-	R
9	3	44	0	0	1	31	1	31	41	1	2	1	21	2	30
10	3	38	0	0	1	18	1	18	28	0	2	0	0	3	25
11	3	44	1	1	2	13	3	14	44	0	1	1	2	3	26
12	3	20	1	2	1	6	2	8	28	0	2	1	2	4	18
13	0	00	1	1	1	2	2	3	23	1	1	0	0	2-3	7
14	3	10	0	0	0	0	0	0	0	1	1	0	0	2-3	7
15	3	13	1	3	1	4	2	7	27	1	1	0	0	2-3	25
16			-	-	-	-	-	-	-	-	-	-	-	-	C
17	3	11	1	20	1	10	2	30	50	1	0	1	10	3	34
18			-	-	-	-	-	-	-	-	-	-	-	-	C
19	3	16	3	33	1	3	4	36	76	1	0	4	12	2	42
20	6	40	2	44	1	2	3	46	76	1	0	2	44	4-5	132
21			-	-	-	-	-	-	-	-	-	-	-	-	M
22	3	20	2	34	2	2	4	36	76	1	1	1	31	2	53
23	3	20	2	32	2	2	4	34	74	1	1	2	28	3	47
24	3	24	2	14	3	14	5	28	78	1	0	4	16	2	57
25	3	12	2	9	3	32	5	41	91	2	1	4	34	4	64
26			-	-	-	-	-	-	-	-	-	-	-	-	M
27	3	52	2	7	3	22	5	29	79	1	1	3	23	4	51
28			-	-	-	-	-	-	-	-	-	-	-	-	C-R
29			-	-	-	-	-	-	-	-	-	-	-	-	R-C
30	3	12	1	10	1	3	2	13	33	1	1	0	0	4-5	21
31	3	16	1	4	1	2	2	6	21	1	1	0	0	2	17
Sum			460		813		1273					748			886
Mean			20.9		37.0		57.9	57.9				34.0			k=0.696

Days 22    8<sup>cm</sup> Refractor x67    Projection 15<sup>cm</sup>

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

$$14260 \div 252 = 56.6$$

$$N 6379 = 25.3$$

$$S 7881 = 31.3$$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

JUNE 1973 Observer - K. Fujimori Suwa, Nagano,  $\lambda 138^{\circ} 7' 20''$   
 $\phi +35^{\circ} 2' 12''$

Date	Time	M				Total			Facula		Cont.		Group	Remarks
		W	E	S	T	S	F	10g+	E	W	S	F		
1	8:12	1	2	0	0	1	2	12	0	2	0	0	2	8
2	3:11	1	2	0	0	1	2	12	0	1	0	0	2	8
3	5:52	0	0	1	3	1	3	13	1	1	1	3	2-3	16
4	3:12	0	0	1	3	1	3	13	1	1	0	0	4	14
5		-	-	-	-	-	-	-	-	-	-	-	-	C
6		-	-	-	-	-	-	-	-	-	-	-	-	C
7		-	-	-	-	-	-	-	-	-	-	-	-	C
8	8:12	3	10	1	3	4	13	53	2	1	2	2	2	34
9	0:40	1	12	1	3	2	15	35	2	1	0	0	4	28
10	3:27	3	14	1	3	4	17	57	2	1	1	3	4	35
11	8:12	4	25	3	6	7	31	101	1	0	3	17	4-5	60
12	3:20	4	42	1	3	5	45	95	2	0	3	20	4	58
13		-	-	-	-	-	-	-	-	-	-	-	-	C
14	3:20	3	35	1	2	4	37	77	2	1	2	7	3	51
15		-	-	-	-	-	-	-	-	-	-	-	-	C
16	3:20	2	24	2	4	4	28	68	2	1	2	25	4-5	41
17		-	-	-	-	-	-	-	-	-	-	-	-	R
18		-	-	-	-	-	-	-	-	-	-	-	-	R
19		-	-	-	-	-	-	-	-	-	-	-	-	R
20		-	-	-	-	-	-	-	-	-	-	-	-	C
21	3:00	2	12	3	4	5	55	105	3	2	0	0	2-3	75
22	7:50	2	6	3	5	5	60	110	1	1	1	36	3-4	61
23	3:00	0	0	3	5	3	59	89	1	1	2	53	3-4	48
24		-	-	-	-	-	-	-	-	-	-	-	-	M
25		-	-	-	-	-	-	-	-	-	-	-	-	M
26		-	-	-	-	-	-	-	-	-	-	-	-	M
27		-	-	-	-	-	-	-	-	-	-	-	-	M
28		-	-	-	-	-	-	-	-	-	-	-	-	M
29		-	-	-	-	-	-	-	-	-	-	-	-	M
30		-	-	-	-	-	-	-	-	-	-	-	-	M
Sum			444		296		840					336		537
Mean			31.7		28.3		60.0	60.0				24.0		

Days 14      8cm Refractor x67 projection 15cm

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

$$13,642 \div 256 = 53.3$$

$$N 6490 = 25.4$$

$$S 9152 = 27.9$$

$$k = 0.639$$

# MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1973 Observer - K. Fujimori Suwa, Nagano

λ 138° 7' 20"  
φ +36° 2' 12"

Date	Time		N		S		Total		10 <sup>6</sup> gf	Facula		Cent.		S. cm <sup>2</sup> S-I	Remarks
	U	T	g	f	g	f	g	f		E	W	g	f		
1			-	-	-	-	-	-	-	-	-	-	-		M
2			-	-	-	-	-	-	-	-	-	-	-		M
3			-	-	-	-	-	-	-	-	-	-	-		M
4			-	-	-	-	-	-	-	-	-	-	-		M
5			-	-	-	-	-	-	-	-	-	-	-		M
6			-	-	-	-	-	-	-	-	-	-	-		M
7			-	-	-	-	-	-	-	-	-	-	-		M
8			-	-	-	-	-	-	-	-	-	-	-		M
9			-	-	-	-	-	-	-	-	-	-	-		M
10	2h 20 <sup>m</sup>		2	29	0	0	2	29	49	2	2	0	0	4	30
11	3:20		2	19	0	0	2	19	39	1	3	0	0	3	23
12	7:10		1	2	1	1	2	3	23	1	2	1	1	4	14
13	3:13		1	2	0	0	1	2	12	2	1	1	2	2	15
14	3:11		0	0	1	3	1	3	13	1	1	0	0	2	9
15	5:50		0	0	1	6	1	6	16	1	1	0	0	3-4	16
16	3:12		0	0	2	4	2	4	24	3	1	1	1	3	9
17	3:14		0	0	3	8	3	8	38	4	1	1	4	3	22
18	3:12		2	6	2	14	4	20	60	1	1	1	10	4-5	36
19	3:11		2	9	2	4	4	13	53	1	2	1	3	5	23
20	2:13		1	1	0	0	1	1	11	0	2	1	1	3	8
21			-	-	-	-	-	-	-	-	-	-	-		M
22	3:11		0	0	1	1	1	1	11	0	1	0	0	3	14
23			-	-	-	-	-	-	-	-	-	-	-		M
24			-	-	-	-	-	-	-	-	-	-	-		M
25	3:12		1	2	1	2	2	4	24	1	1	1	2	3	14
26	3:13		0	0	1	2	1	2	12	1	2	0	0	3	8
27	3:14		0	0	1	4	1	4	14	2	1	0	0	3	9
28	3:15		1	9	0	0	1	9	19	2	1	0	0	3	10
29			0	0	1	9	-	-	-	-	-	-	-		R
30			-	-	-	-	-	-	-	-	-	-	-		C
31			-	-	-	-	-	-	-	-	-	-	-		C
Sum			190	209	228	209	418					104		260	
Mean			11.9	13.1	14.3	13.1	26.1	26.1				6.5			

Days: 16      8<sup>cm</sup> Refractor no. 7      projection 15<sup>cm</sup>

1 2 3 4 5 6 (7) 8 9 10 11 12 1      k = 0.622

N 6218 = ~~27~~ 23.4

13.519 ÷ 266 = 50.8      S 7301 = 27.4

# MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1973 Observer - K. Fujimori Suwa, Nagano

λ 138° 7' 20"  
φ +36° 2' 12"

Date	Time U T	N		S		Total		10 <sup>+</sup> f	Facula		Cent.		Seq. No. 5-1	Remarks
		g	f	g	f	g	f		E	W	g	f		
1		-	-	-	-	-	-	-	-	-	-	-		C
2		-	-	-	-	-	-	-	-	-	-	-		C
3	2 <sup>h</sup> 16 <sup>m</sup>	0	0	2	8	2	8	28	1	0	0	0	2	21
4	3=08	1	4	2	8	3	12	42	1	1	1	4	3-4	28
5	3=02	1	13	2	5	3	18	48	1	1	1	13	2-3	34
6	3=06	1	22	1	3	2	25	45	2	2	2	25	3-4	40
7	3=12	1	35	2	4	3	39	69	1	1	2	38	3	42
8	3=14	1	25	2	8	3	33	63	0	1	2	21	3	40
9	3=11	2	11	2	8	4	19	59	1	1	2	8	2	38
10	3=10	1	8	2	6	3	14	44	0	1	1	4	2-3	27
11	3=11	1	3	2	3	3	6	36	0	2	1	2	3	23
12	3=10	0	0	0	0	0	0	0	0	2	0	0	2-3	0
13	3=10	0	0	0	0	0	0	0	1	1	0	0	3	0
14	3=08	0	0	0	0	0	0	0	2	0	0	0	2-3	0
15	3=40	0	0	0	0	0	0	0	0	3	0	0	2	0
16	2=10	0	0	0	0	0	0	0	0	1	0	0	1-2	0
17	3=10	0	0	0	0	0	0	0	1	0	0	0	1-2	0
18	3=12	1	1	0	0	1	1	11	1	0	0	0	2	7
19	3=13	1	1	0	0	1	1	11	1	1	0	0	3	7
20	3=13	1	1	0	0	1	1	11	0	0	0	0	2	7
21	3=12	1	4	1	1	2	5	25	0	0	2	2	2	15
22	3=18	1	6	0	0	1	6	16	2	1	1	6	3	10
23		-	-	-	-	-	-	-	-	-	-	-		C
24		-	-	-	-	-	-	-	-	-	-	-		R
25		-	-	-	-	-	-	-	-	-	-	-		R
26		-	-	-	-	-	-	-	-	-	-	-		M
27	3=10	3	15	0	0	3	15	45	2	1	1	8	2-3	37
28	3=13	4	20	0	0	4	20	60	1	1	2	17	2-3	47
29	3=20	3	27	1	9	4	36	76	1	1	3	27	3-4	56
30	3=17	2	17	2	18	4	35	75	1	0	3	21	1-2	64
31	3=20	6	28	2	21	8	49	129	2	1	6	27	3	82
Sum			561		332		893					523		625
Mean			22.4		13.3		35.7	35.7				20.9		

Days 25 8<sup>cm</sup> Refractor k<sub>1</sub> - Projection 15<sup>cm</sup>

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

12843 ÷ 261 = 49.2

k = 0.700  
N 5543 = 21.2  
57300 = 28.0



# MONTHLY REPORT OF SUNSPOT OBSERVATION

SEPTEMBER 1973 Observer - K. Fujimori Suwa, Nagano

Date	Time		N		S		Total		10g+f	Facula		Cent.		Seeing 5-1	Remarks
	U	T	g	f	g	f	g	f		E	W	g	f		
1	3 <sup>h</sup>	16 <sup>m</sup>	6	21	2	38	8	59	139	2	0	5	21	4-5	87
2	3	30	5	23	4	53	9	76	166	2	1	4	13	2	129
3			-	-	-	-	-	-	-	-	-	-	-		C
4	3	22	4	42	5	63	9	105	195	1	3	3	63	2	肉眼黒点=3 127
5			-	-	-	-	-	-	-	-	-	-	-		R
6			-	-	-	-	-	-	-	-	-	-	-		R
7			-	-	-	-	-	-	-	-	-	-	-		C
8	3	20	2	10	3	53	5	63	113	0	2	2	41	2	72
9	2	40	2	9	4	58	6	67	127	0	2	1	49	5	75
10			-	-	-	-	-	-	-	-	-	-	-		C
11	3	16	1	2	2	34	3	36	66	0	3	0	0	3	42
12	3	14	1	2	2	10	3	12	42	0	3	0	0	2-3	27
13			-	-	-	-	-	-	-	-	-	-	-		R
14	3	14	0	0	0	0	0	0	0	2	1	0	0	2	0
15	3	20	1	2	0	0	1	2	12	2	0	0	0	2	8
16	3	20	2	5	0	0	2	5	25	2	0	1	2	3	33
17	3	10	1	6	1	1	2	7	27	2	0	1	1	2	20
18			-	-	-	-	-	-	-	-	-	-	-		C-R
19	3	26	1	3	0	0	1	3	13	2	1	1	3	4	8
20			-	-	-	-	-	-	-	-	-	-	-		R
21			-	-	-	-	-	-	-	-	-	-	-		R
22			-	-	-	-	-	-	-	-	-	-	-		C
23	3	52	5	34	0	0	5	34	84	2	0	2	3	2-3	58
24	3	13	5	33	0	0	5	33	83	-	-	3	13	1	63
25	3	20	6	36	0	0	6	36	96	1	2	4	33	1-2	82
26			-	-	-	-	-	-	-	-	-	-	-		C
27	3	20	5	30	2	7	7	37	107	4	1	2	24	1-2	83
28	3	20	4	30	2	14	6	44	104	2	0	2	25	2	80
29	3	10	6	23	2	17	8	40	120	2	1	2	7	5	75
30			-	-	-	-	-	-	-	-	-	-	-		R
Sum			881		638		1519				628				1071
Mean			48.9		35.4		84.4		84.4		34.9				

Days 18    8<sup>cm</sup> Refractor x67    projection 15<sup>cm</sup>    k=0.705

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

12416 ÷ 262 = 47.4    N 5280 = 20.2

57136 = 27.2

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 OCTOBER 1973 Observer-K. Fujimori Suwa, Nagano ( $\lambda 138^{\circ} 7' 20''$   
 $\phi +36^{\circ} 2' 12''$ )

Date	Time		N		S		Total		Facula			Cent.		Seeing 5-1	Remarks
	U	T	g	f	g	f	g	f	10g+f	E	W	g	f		
1	3 <sup>h</sup>	16 <sup>m</sup>	4	21	2	28	6	49	109	1	2	4	19	3	65
2	3	18	4	13	2	23	6	36	96	1	2	4	27	2	66
3			-	-	-	-	-	-	-	-	-	-	-		C
4			-	-	-	-	-	-	-	-	-	-	-		C
5			-	-	-	-	-	-	-	-	-	-	-		C
6	3	26	2	4	3	5	5	9	59	0	2	1	1	3	38
7			-	-	-	-	-	-	-	-	-	-	-		R
8			-	-	-	-	-	-	-	-	-	-	-		C
9	3	10	1	2	2	6	3	8	38	1	2	1	3	4	23
10	3	12	0	0	1	1	1	1	11	0	1	0	0	2	8
11	3	32	0	0	0	0	0	0	0	0	1	0	0	2	0
12			-	-	-	-	-	-	-	-	-	-	-		C
13			-	-	-	-	-	-	-	-	-	-	-		R
14			-	-	-	-	-	-	-	-	-	-	-		C
15	3	10	1	2	0	0	1	2	12	0	0	0	0	1-2	16
16	3	13	1	1	1	7	2	8	28	2	1	0	0	2	18
17			-	-	-	-	-	-	-	-	-	-	-		R
18	3	13	1	2	1	2	2	4	24	3	2	0	0	3	15
19	3	11	0	0	0	0	0	0	0	2	1	0	0	2	0
20			-	-	-	-	-	-	-	-	-	-	-		M
21			-	-	-	-	-	-	-	-	-	-	-		R
22			-	-	-	-	-	-	-	-	-	-	-		M
23	3	11	1	2	1	14	2	16	36	2	0	0	0	2	38
24	3	16	2	4	1	21	3	25	55	2	0	0	0	2	36
25	3	20	3	6	1	36	4	42	82	2	0	0	0	4	53
26	3	20	4	13	1	33	5	46	96	3	0	2	33	2	59
27			-	-	-	-	-	-	-	-	-	-	-		C
28			-	-	-	-	-	-	-	-	-	-	-		R
29	3	18	3	11	1	30	4	41	81	1	1	3	36	2	70
30			-	-	-	-	-	-	-	-	-	-	-		C
31	3	14	3	5	2	14	5	19	69	0	0	2	3	3-4	37
Sum			386		410		796					292			545
Mean			24.1		25.6		49.8		49.8			19.3			

Days 16  $8^{\circ}$  Refractor x47 projection  $15^{\circ}$

4 5 6 7 8 9 (10) 11 12 1 2 3 4  $k=0.685$   
 $11.817 \div 255 = 46.3$   $N4711 = 19.5$   
 $S7106 = 27.9$

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 NOVEMBER 1973 Observer-K. Fujimori Suwa, Nagano (λ 138° 7' 20"  
 φ +36° 2' 12")

Date	Time		N		S		Total		Facula			Cent.		Seeing 5-1	Remarks
	U	T	g	f	g	f	g	f	10g+f	E	W	g	f		
1			-	-	-	-	-	-	-	-	-	-	-	-	C
2	3 <sup>h</sup>	14 <sup>m</sup>	2	3	2	10	4	13	53	0	2	2	7	2-3	33
3	1:	20	1	2	2	7	3	9	39	1	2	0	0	3	23
4	2:	30	1	2	1	1	2	3	23	2	2	0	0	2-3	20
5			-	-	-	-	-	-	-	-	-	-	-	-	C
6			-	-	-	-	-	-	-	-	-	-	-	-	R
7	3:	10	0	0	0	0	0	0	0	0	0	0	0	1-2	0
8	3:	10	0	0	0	0	0	0	0	1	1	0	0	2	0
9			-	-	-	-	-	-	-	-	-	-	-	-	C
10			-	-	-	-	-	-	-	-	-	-	-	-	R
11			-	-	-	-	-	-	-	-	-	-	-	-	M
12	3:	10	0	0	0	0	0	0	0	0	0	0	0	2	0
13	3:	12	1	2	0	0	1	2	12	1	0	0	0	2	9
14	3:	24	1	6	0	0	1	6	16	2	1	0	0	4	11
15	3:	40	1	11	0	0	1	11	21	1	0	0	0	2-3	12
16			-	-	-	-	-	-	-	-	-	-	-	-	M
17			-	-	-	-	-	-	-	-	-	-	-	-	M
18	3:	10	1	7	0	0	1	7	17	0	0	1	7	1-2	16
19			-	-	-	-	-	-	-	-	-	-	-	-	S
20	3:	12	1	2	0	0	1	2	12	2	0	1	2	2	16
21			-	-	-	-	-	-	-	-	-	-	-	-	C
22	3:	14	1	2	1	9	2	11	31	2	0	0	0	2	29
23	1:	50	0	0	2	25	2	25	45	2	1	1	11	1-2	39
24	3:	20	0	0	3	30	3	30	60	2	1	2	5	2-3	37
25	3:	13	0	0	3	28	3	28	58	2	2	0	0	1-2	38
26	3:	22	1	6	4	37	5	43	93	0	1	3	35	2	54
27			-	-	-	-	-	-	-	-	-	-	-	-	M
28	3:	34	1	8	3	36	4	44	84	0	1	2	33	2	54
29	2:	10	1	6	4	49	5	55	105	0	2	2	43	2	54
30	2:	50	1	5	3	45	4	50	90	1	2	1	1	2-3	55
Sum				202		557		759					294		500
Mean				10.6		29.3		39.9	39.9				15.5		

Days 19 8cm Refraction x67 projection 15cm  
 5 6 7 8 9 10 (11) 12 1 2 3 4 5 k=0.659  
 N4356=17.1  
 11.320 ÷ 255 = 44.4 56964=27.3

MONTHLY REPORT OF SUNSPOT OBSERVATION  
 DECEMBER 1973 Observer - K. Fujimori Suwa, Nagano  $\left\{ \begin{array}{l} \lambda 138^{\circ} 7' 20'' \\ \phi +36^{\circ} 2' 12'' \end{array} \right.$

Date	Time		N		S		Total		Facula		Cent.		Seeing 5-1	Remarks	
	U	T	g	f	g	f	g	f	E	W	g	f			
1	3 <sup>h</sup>	16 <sup>m</sup>	0	0	3	34	3	34	64	1	3	0	0	2	46
2			-	-	-	-	-	-	-	-	-	-	-		C
3			-	-	-	-	-	-	-	-	-	-	-		M
4			-	-	-	-	-	-	-	-	-	-	-		S
5	3:	12	0	0	0	0	0	0	0	1	1	0	0	2	0
6	3:	10	0	0	0	0	0	0	0	0	0	0	0	2-3	0
7	3:	10	0	0	0	0	0	0	0	0	0	0	0	1	0
8	3:	12	1	2	0	0	1	2	12	1	0	0	0	2	7
9	3:	54	1	2	0	0	1	2	12	1	0	0	0	2	3
10	3:	10	1	2	0	0	1	2	12	1	0	0	0	1	16
11	3:	14	1	2	0	0	1	2	12	1	1	0	0	3	9
12	3:	12	1	2	0	0	1	2	12	1	0	1	2	1-2	9
13	3:	12	1	2	0	0	1	2	12	1	0	1	2	2-3	8
14	3:	13	1	2	0	0	1	2	12	1	0	1	2	2	8
15	3:	16	1	2	0	0	1	2	12	-	-	1	2	1	17
16	3:	00	2	4	0	0	2	4	24	2	0	0	0	2	26
17	3:	16	2	3	1	5	3	8	38	3	0	0	0	3-4	40
18	3:	17	2	3	1	7	3	10	40	3	1	0	0	2	47
19	3:	16	1	2	2	17	3	19	49	1	1	1	3	2-3	41
20	3:	18	1	2	2	33	3	35	65	1	0	3	16	2	49
21			-	-	-	-	-	-	-	-	-	-	-		M
22			-	-	-	-	-	-	-	-	-	-	-		M
23			-	-	-	-	-	-	-	-	-	-	-		M 肉眼照=1
24	3:	30	1	2	3	31	4	33	73	0	1	1	11	2	肉眼照=572
25	3:	14	1	2	3	31	4	33	73	0	1	0	0	3	60
26	3:	16	1	1	3	20	4	21	51	0	3	0	0	3	68
27	3:	14	1	1	1	3	2	4	24	0	3	0	0	3	26
28			-	-	-	-	-	-	-	-	-	-	-		C
29	3:	13	0	0	0	0	0	0	0	0	1	0	0	2-3	0
30	3:	30	0	0	0	0	0	0	0	0	1	0	0	2	0
31	3:	40	0	0	0	0	0	0	0	0	1	0	0	2-3	0
Sum			236		371		607		607		128				537
Mean			9.8		15.5		25.3		25.3		5.3				

Days 24 8cm Refractor x67 projection 15cm 0.895

6 7 8 9 10 11 (12) 1 2 3 4 5-6 N4212 = 16.6  
 10.944 ÷ 253 = 43.3 S6732 = 26.6