

MONTHLY REPORT OF SUNSPOT OBSERVATION
 FEBRUARY 1969 Observer-K. Fujimori SUWA, NAGANO.

Date	Time		N		S		Total		Facula		Cent.		Seeing 1-5	Remarks
	U.	T	g	t	g	t	g	t	g	w	g	t		
1			-	-	-	-	-	-	-	-	-	-		C
2			-	-	-	-	-	-	-	-	-	-		C
3	3:20 ^m		4	12	2	19	6	31	91	4	2	0	0	2
4			-	-	-	-	-	-	-	-	-	-		C
5	3:25		5	18	2	20	7	38	168	2	1	2	20	2
6	3:20		4	22	3	25	7	47	117	3	3	4	30	3
7	3:23		4	24	3	28	7	52	122	1	3	5	37	2-3
8	3:20		4	27	3	33	7	60	130	1	2	6	42	2
9	2:35		4	21	4	20	8	41	121	2	3	3	21	4
10	4:45		4	12	3	15	7	27	97	0	3	2	6	2
11			-	-	-	-	-	-	-	-	-	-		M
12	3:17		2	15	2	2	4	17	57	3	7	0	0	3
13	3:20		2	16	1	3	3	19	49	2	2	1	6	2
14			-	-	-	-	-	-	-	-	-	-		C
15			-	-	-	-	-	-	-	-	-	-		C
16			-	-	-	-	-	-	-	-	-	-		S
17			-	-	-	-	-	-	-	-	-	-		C
18			-	-	-	-	-	-	-	-	-	-		C
19	6:30		4	26	3	28	7	54	124	2	2	2	17	2
20			-	-	-	-	-	-	-	-	-	-		C
21			-	-	-	-	-	-	-	-	-	-		M
22	4:40		4	56	3	23	7	79	149	2	3	5	52	1
23	2:50		4	57	4	27	8	84	164	1	2	5	63	2
24	4:30		5	68	5	21	10	89	189	1	3	3	61	1-2
25	3:20		4	59	6	37	10	96	196	1	3	4	34	1-2
26	6:30		3	40	6	33	9	73	163	1	2	1	4	1
27			-	-	-	-	-	-	-	-	-	-		S
28	4:35		4	15	5	48	9	63	153	4	2	3	43	1-2
Sum			1.098		932		2.030					896		
Mean			68.6		53.3		126.9	126.9				56.0		

Days 16 100^{mm} REFLECTOR x56 Direct Vision
 80^{mm} REFRACTOR x67 projection
 $8 \ 9 \ 10 \ 11 \ 12 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8$
 $35184 \div 276 = 127.5$
 $119768 = 71.6$
 $515416 = 55.9$

MONTHLY REPORT OF SUNSPOT OBSERVATION
 MARCH 1969 Observer - K. Fujimori Suwa, Nagano

Date	Time		N		S		Total		Facula		Cent.		Seeing 1-5	Remarks	
	U.	T.	g	f	g	f	g	f	E	W	g	f			
1	3 ^h	25 ^m	5	17	5	46	10	63	163	4	2	3	41	2-3	肉眼黒点=1
2	4:	35	4	14	5	54	9	69	158	4	2	3	51	4	" = 1
3	3:	26	5	18	4	51	9	69	159	4	1	5	53	3-4	" = 1
4			-	-	-	-	-	-	-	-	-	-	-	-	S
5	3:	22	4	29	2	39	6	68	128	2	3	4	30	4	
6	3:	18	5	17	3	27	8	44	124	2	3	5	22	3	
7			-	-	-	-	-	-	-	-	-	-	-	-	C
8	3:	15	5	36	1	2	6	38	98	4	4	2	26	4	
9			-	-	-	-	-	-	-	-	-	-	-	-	C
10	3:	22	7	42	1	3	8	45	125	2	5	2	6	2-3	
11	3:	20	5	28	3	8	8	36	116	4	2	2	6	2-3	
12			-	-	-	-	-	-	-	-	-	-	-	-	S
13	2:	30	5	14	4	13	9	27	117	2	1	2	8	1-2	
14	3:	20	4	12	5	17	9	29	119	2	1	2	6	1	
15	3:	20	8	26	4	17	12	43	163	3	2	3	7	3	
16	3:	15	8	54	5	11	13	65	195	4	2	6	32	3	
17	3:	30	9	69	8	33	17	102	272	5	3	6	33	3	肉眼黒点=1
18	3:	25	9	89	6	23	15	112	262	5	2	5	35	2-3	" = 1
19			-	-	-	-	-	-	-	-	-	-	-	-	C
20	3:	22	7	83	5	20	12	103	223	2	2	5	57	2-3	肉眼黒点=1
21			-	-	-	-	-	-	-	-	-	-	-	-	C
22	1:	35	5	79	6	38	11	117	227	1	2	6	89	2-3	肉眼黒点=1
23	4:	00	4	80	3	38	7	118	188	2	3	5	75	4	" = 1
24	3:	25	3	58	3	32	6	90	150	3	3	3	32	2-3	" = 1
25	3:	22	4	50	4	32	8	82	172	4	2	2	4	3	" = 1
26	3:	30	5	48	5	28	10	76	176	5	4	1	9	2-3	
27	3:	25	5	34	5	20	10	54	154	4	4	1	10	3-4	
28	3:	25	7	44	4	12	11	56	166	3	3	4	14	3-4	
29			-	-	-	-	-	-	-	-	-	-	-	-	R
30			-	-	-	-	-	-	-	-	-	-	-	-	R
31	3:	25	4	71	2	17	6	88	148	1	1	3	26	2	肉眼黒点=1
Sum				2282		1511		3793					1472		
Mean				99.2		65.7		164.9	164.9				64.0		

Days 23 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x57 projection 15^{cm}
 9 10 11 12 12 ③ 4 5 6 7 8 9
 $35229 \div 273 = 129.0$ $119220 = 70.8$
 $515909 = 58.3$

MONTHLY REPORT OF SUNSPOT OBSERVATION

APRIL 1969 Observer - K. Fujimori Suwa, Nagano

Date	Time		N		S		Total		log ₂ f		Facula		Cent. Seeing		Remarks
	U.	T.	g	f	g	f	g	f	E	W	g	f	1-5		
1	3:00	m	6	109	4	18	10	127	227	2	2	4	84	2-3	肉眼黒点=1
2	3:10		6	92	1	13	7	105	175	3	4	1	60	3	" = 1
3	3:15		7	116	1	7	8	123	203	1	4	4	84	3	" = 1
4			-	-	-	-	-	-	-	-	-	-	-	-	R
5	3:10		5	58	1	2	6	60	120	2	3	2	20	1-2	肉眼黒点=1
6			-	-	-	-	-	-	-	-	-	-	-	-	M
7	3:05		3	40	1	3	4	43	83	4	2	1	11	3	肉眼黒点=1
8	3:15		3	32	2	4	5	36	86	2	2	3	21	2	" = 1
9	2:55		3	23	4	18	7	41	111	4	1	3	27	4	" = 1
10	3:03		2	10	4	26	6	36	96	3	2	3	15	4	" = 1
11	3:52		3	13	4	27	7	40	110	4	2	2	5	4	" = 1
12	4:06		4	12	3	32	7	44	114	2	1	1	14	4	
13	3:20		7	17	4	38	11	55	165	4	2	2	28	3	
14	3:16		6	38	4	36	10	74	174	5	2	3	34	3-4	
15			-	-	-	-	-	-	-	-	-	-	-	-	C
16			-	-	-	-	-	-	-	-	-	-	-	-	C-R
17			-	-	-	-	-	-	-	-	-	-	-	-	S-C
18	4:17		6	57	5	38	11	95	205	4	3	7	70	4-5	
19	3:57		5	39	5	31	10	70	170	2	4	6	40	4	
20	5:05		7	30	5	33	12	63	183	3	5	5	27	3	
21	3:56		5	30	5	33	10	63	163	2	4	4	20	3	
22	6:17		3	19	3	25	6	44	104	4	4	1	17	4-5	
23	3:51		2	17	2	14	4	31	71	4	4	0	0	3	
24	4:51		4	19	2	12	6	31	91	3	3	1	8	4-5	
25			-	-	-	-	-	-	-	-	-	-	-	-	C
26			-	-	-	-	-	-	-	-	-	-	-	-	C
27			-	-	-	-	-	-	-	-	-	-	-	-	C
28	3:17		3	45	0	0	3	45	75	2	1	2	33	3-4	
29	3:42		4	30	0	0	4	30	70	3	2	2	19	3	
30	3:20		5	23	0	0	5	23	73	4	3	2	16	2	
Sum			1.859		1.010		2.869						1.243		
Mean			84.5		45.9		130.4	130.4					56.5		

Days 22 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 Projection 15^{cm}
 10 11 12 1 2 3 ④ 5 6 7 8 9 10
 $33699 \div 271 = 124.4$ $N19169 = 70.7$
 $514530 = 53.6$

MONTHLY REPORT OF SUNSPOT OBSERVATION

MAY 1969 Observer-K. Fujimori Suwa, Nagano

Date	Time	N		S		Total		10g±	Facula		Cent.		Seeing 1-5	Remarks
		g	f	g	f	g	f		E	W	g	f		
1	4 ^h 13 ^m	5	33	1	2	6	35	95	1	3	2	26	4-5	
2	4:03	4	25	2	7	6	32	92	2	4	3	13	4	
3	1:05	4	20	1	11	5	31	81	2	3	1	3	4	
4	3:42	4	18	1	19	5	37	87	4	2	3	6	5	
5	2:53	3	14	3	30	6	44	104	6	3	1	3	4	
6	3:07	3	5	3	31	6	36	96	4	2	2	22	3	
7	3:50	1	1	3	24	4	25	65	6	3	2	15	2-3	
8	3:42	0	0	4	42	4	42	82	3	3	3	22	5	
9	3:50	1	2	6	45	7	47	117	4	2	3	39	5	
10	3:13	1	2	4	34	5	36	86	4	2	3	24	4	
11		-	-	-	-	-	-	-	-	-	-	-	-	c
12	3:44	5	38	4	19	9	57	147	3	1	4	24	3	
13		-	-	-	-	-	-	-	-	-	-	-	-	c
14	3:45	9	48	4	30	13	78	208	1	2	11	68	4	
15		-	-	-	-	-	-	-	-	-	-	-	-	c
16		-	-	-	-	-	-	-	-	-	-	-	-	c
17		-	-	-	-	-	-	-	-	-	-	-	-	c
18	3:49	8	53	2	8	10	61	161	3	5	1	5	4	
19	3:05	7	22	3	19	10	41	141	2	6	1	2	3-4	
20	3:50	6	23	2	33	8	56	136	2	2	0	0	1-2	
21	3:53	7	35	4	55	11	90	200	5	3	4	42	3-4	
22	3:35	6	58	4	66	10	124	224	1	1	6	90	4	肉眼黒点=2
23	3:10	6	64	5	70	11	134	244	1	1	9	128	4	" = 3
24	3:05	8	66	4	68	12	134	254	1	1	9	118	2	
25		-	-	-	-	-	-	-	-	-	-	-	-	c
26	3:30	8	48	4	58	12	106	226	2	4	5	39	3	
27		-	-	-	-	-	-	-	-	-	-	-	-	c
28		-	-	-	-	-	-	-	-	-	-	-	-	M
29		-	-	-	-	-	-	-	-	-	-	-	-	M
30	3:15	4	19	2	5	6	24	84	1	4	1	6	4	
31	2:35	1	9	1	3	2	12	32	2	4	1	9	4	
Sum		1613	1349	2962							1454			
Mean		73.3	61.3	134.6	134.6						66.1			

Days 22 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 Projection 15^{cm}
 11 12 1 2 3 4 ⑤ 6 7 8 9 10 11
 22112 ÷ 277 = 12.04 N19929 = 73.3

TABLE OF SUNSPOT GROUPS

MONTHLY REPORT OF SUNSPOT OBSERVATION
 JUNE 1969 Observer - K. Fujimori Suwa, Nagano

Date	Time		N		S		Total		10g+	Facula Cent.		Seeing 1-5	Remarks		
	U.	T.	g	f	g	f	g	f		E	W			g	f
1	3 ^h	18 ^m	1	7	2	7	3	14	44	1	3	7	3		
2	3=	17	2	6	2	6	4	12	52	2	1	3	10	4	
3			-	-	-	-	-	-	-	-	-	-	-	C-R	
4	3=	20	4	17	3	7	7	24	94	6	2	2	5	3-4	
5	3=	13	7	28	2	13	9	41	137	3	1	1	1	2-3	
6	7=	00	8	57	5	39	13	96	226	3	3	4	24	3	
7	2=	45	9	71	5	36	14	107	247	3	3	8	45	3	
8	3=	00	7	82	2	57	9	139	229	2	2	8	81	3	肉眼黒点 = 2
9	5=	20	7	80	2	57	9	137	227	3	2	9	131	4	" = 2
10	3=	00	7	87	2	56	9	143	233	2	1	8	142	2-3	" = 2
11	6=	10	6	62	3	64	9	126	216	3	2	7	102	4	" = 2
12			-	-	-	-	-	-	-	-	-	-	-	-	C
13	4=	00	8	53	3	57	11	110	220	3	3	2	30	3-4	肉眼黒点 = 2
14	3=	40	7	46	5	41	12	87	207	4	4	1	9	3-4	" = 2
15	2=	10	6	54	4	34	10	88	188	2	3	2	25	4	
16	3=	15	6	33	5	30	11	63	173	3	3	5	28	4-5	
17			-	-	-	-	-	-	-	-	-	-	-	-	C
18			-	-	-	-	-	-	-	-	-	-	-	-	R-C
19			-	-	-	-	-	-	-	-	-	-	-	-	C
20	3=	00	6	49	1	1	7	50	120	3	2	5	46	4-5	
21			-	-	-	-	-	-	-	-	-	-	-	-	C
22			-	-	-	-	-	-	-	-	-	-	-	-	R-C
23			-	-	-	-	-	-	-	-	-	-	-	-	C
24	3=	40	5	10	1	3	6	13	73	1	2	3	3	3-4	
25	3=	13	3	11	3	4	6	15	75	3	2	1	7	4-5	
26			-	-	-	-	-	-	-	-	-	-	-	-	C
27			-	-	-	-	-	-	-	-	-	-	-	-	C
28	3=	32	3	12	1	11	4	23	63	2	4	3	12	4-5	
29			-	-	-	-	-	-	-	-	-	-	-	-	C
30			-	-	-	-	-	-	-	-	-	-	-	-	R
Sum			1.785		1.033		2.818						1.438		
Mean			99.2		57.4		156.6	156.6					79.9		

Days 18 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 Projection 15^{cm}
 12 1 2 3 4 5 ⑥ 7 8 9 10 11 12
 $20067 = 75.4$
 $34615 \div 266 = 130.1$ $514548 = 54.7$

MONTHLY REPORT OF SUNSPOT OBSERVATION

JULY 1969

Observer - K. Fujimori

Suwa, Nagano

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

Date	Time		N		S		Total		10g+	Facula		Cent.		Seeing 1-5	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1			-	-	-	-	-	-	-	-	-	-	-		C
2			-	-	-	-	-	-	-	-	-	-	-		R
3	3 ^h	50 ^m	5	29	6	64	11	93	203	2	1	4	21	3-4	
4			-	-	-	-	-	-	-	-	-	-	-		C
5			-	-	-	-	-	-	-	-	-	-	-		R
6	4:00		7	32	5	44	12	76	196	3	3	6	65	2	肉眼黒点 = 1
7			-	-	-	-	-	-	-	-	-	-	-		C
8			-	-	-	-	-	-	-	-	-	-	-		C
9			-	-	-	-	-	-	-	-	-	-	-		C
10			-	-	-	-	-	-	-	-	-	-	-		C
11			-	-	-	-	-	-	-	-	-	-	-		C
12			-	-	-	-	-	-	-	-	-	-	-		C
13	3:45		5	25	6	25	11	50	160	3	3	5	32	4	
14	3:10		4	26	3	8	7	34	104	1	3	6	33	2	
15	3:35		4	22	2	4	6	26	86	2	3	4	22	4	
16	3:50		4	31	1	4	5	35	85	2	2	2	9	3-4	
17	4:55		4	26	2	4	6	30	90	2	3	3	16	4	
18	3:45		7	38	1	2	8	40	120	3	2	4	19	4-5	
19	3:28		5	41	0	0	5	41	91	1	4	1	13	4	
20	3:31		4	24	0	0	4	24	64	1	2	1	3	4	
21	6:09		4	24	1	9	5	33	83	0	4	1	9	4	
22	4:03		2	16	3	8	5	24	74	3	4	2	16	3	
23			-	-	-	-	-	-	-	-	-	-	-		C
24	3:50		2	19	2	5	4	24	64	2	3	2	19	2	
25	4:18		2	8	2	9	4	17	57	3	3	2	8	2-3	
26	5:21		2	8	2	18	4	26	66	-	-	0	0	2-3	
27	3:30		1	1	2	30	3	31	61	3	3	0	0	2	
28	3:15		1	1	4	58	5	59	109	4	1	3	5	4-5	
29	4:15		1	2	4	67	5	69	119	-	-	3	37	2	
30	2:05		1	1	5	76	6	77	137	2	1	5	57	4	肉眼黒点 = 1
31			-	-	-	-	-	-	-	-	-	-	-		C
Sum			1.024		9.45		1.969					9.24			
Mean			53.9		49.7		103.6	103.6				48.6			

Days 19 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 Projection 15^{cm}
 1 2 3 4 5 6 (7) 8 9 10 11 12 1

$36191 \div 269 = 134.5$ $N19653 = 73.1$
 $S16538 = 61.5$

MONTHLY REPORT OF SUNSPOT OBSERVATION

AUGUST 1969 Observer - K. Fujimori Suwa, Nagano λ - 138° 7' 20"
φ + 36° 2' 12"

Date	Time		N		S		Total		Facula		Cent		Seeing	Remarks	
	U.	T.	g	f	g	f	g	f	10g+f	E	w	g-f	f-g		5-1
1			-	-	-	-	-	-	-	-	-	-	-		C
2			-	-	-	-	-	-	-	-	-	-	-		C
3	3 ^h	35 ^m	3	25	4	115	7	140	210	-	-	4	58	2	
4	3	00	3	28	5	107	8	135	215	-	-	3	38	2	
5	6	13	5	37	4	100	9	137	227	5	3	3	48	4	肉眼黒点 =
6			-	-	-	-	-	-	-	-	-	-	-		M
7			-	-	-	-	-	-	-	-	-	-	-		C
8	2	00	4	13	3	49	7	62	132	3	4	5	14	3	
9			-	-	-	-	-	-	-	-	-	-	-		C
10	3	05	2	15	4	29	6	44	104	3	4	0	0	2	
11			-	-	-	-	-	-	-	-	-	-	-		R
12	3	03	4	5	3	21	7	26	96	3	5	0	0	3-4	
13	3	12	2	3	4	12	6	15	75	3	4	2	2	3	
14	2	13	2	4	3	13	5	17	67	2	4	2	6	3	
15	3	35	1	6	3	26	4	32	72	2	4	2	7	4-5	
16	5	05	1	7	1	26	2	33	53	1	3	1	7	4-5	
17	5	30	1	4	1	31	2	35	55	1	4	2	29	3	
18	2	13	2	4	1	19	3	23	53	2	4	2	22	3-4	
19	2	18	2	3	1	9	3	12	42	1	3	2	10	3-4	
20			-	-	-	-	-	-	-	-	-	-	-		M
21	1	25	1	1	2	13	3	14	44	2	2	1	1	4	
22	2	40	2	14	2	6	4	20	60	2	3	1	5	2-3	
23			-	-	-	-	-	-	-	-	-	-	-		M
24	3	20	3	43	2	3	5	46	96	3	2	2	5	2	
25			-	-	-	-	-	-	-	-	-	-	-		C
26			-	-	-	-	-	-	-	-	-	-	-		C
27	3	50	4	65	1	4	5	69	119	2	1	2	47	2	
28	2	20	5	106	3	18	8	124	204	3	2	4	68	3	肉眼黒点 = 1
29	3	35	6	83	3	19	9	102	192	3	1	5	57	3	" = 1
30	4	10	8	91	4	21	12	112	232	2	1	8	95	2-3	
31	3	33	6	64	3	16	9	80	170	3	2	5	60	3-4	
Sum			129	1	122	7	251	8				113	9		
Mean			61.5		58.4		119.7		119.9				54.2		

Days 21 100^{mm} Reflector x56 Direct Vision

80^{mm} Refractor x67 Projection

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

$$37419 \div 268 = 139.6$$

$$N 19170 = 71.5$$

$$518249 = 68.1$$

MONTHLY REPORT OF SUNSPOT OBSERVATION
 OCTOBER 1969 Observer - K. Fujimori Suwa, Nagano $\lambda - 132^{\circ} 20'$
 $\phi + 36^{\circ} 12'$

Date	Time		N		S		Total		log ₁₀ I	Facula		Cent.		Seeing 5-1	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1			-	-	-	-	-	-	-	-	-	-	-		R
2	1:27	TM	3	7	5	35	8	42	122	3	5	2	22	3-4	
3	2:52		5	29	4	40	9	69	159	3	4	4	36	4	
4	4:23		3	30	3	26	6	56	116	2	2	3	46	4	
5	2:46		3	43	4	18	7	61	131	2	4	3	45	3	
6	2:53		5	64	2	13	7	77	147	2	3	1	48	3-4	
7			-	-	-	-	-	-	-	-	-	-	-		M
8			-	-	-	-	-	-	-	-	-	-	-		C
9	6:00		3	62	2	4	5	66	116	-	-	2	10	1	
10			-	-	-	-	-	-	-	-	-	-	-		C
11	3:13		4	61	1	3	5	64	114	1	3	3	19	3-4	
12	2:53		4	24	1	4	5	28	78	1	2	3	11	3	
13	3:00		2	10	3	8	5	18	68	2	3	2	11	3	
14	3:03		2	10	2	20	4	30	70	1	3	2	25	3	
15	3:17		2	9	2	23	4	32	72	-	-	1	21	2	
16			-	-	-	-	-	-	-	-	-	-	-		C
17	3:48		1	2	2	7	3	9	39	5	3	0	0	3	
18	5:17		3	9	1	3	4	12	52	5	4	1	3	4	
19	2:37		2	5	1	7	3	12	42	3	5	1	1	3	
20			-	-	-	-	-	-	-	-	-	-	-		C
21			-	-	-	-	-	-	-	-	-	-	-		C
22			-	-	-	-	-	-	-	-	-	-	-		C
23	3:17		3	85	4	16	7	101	197	2	2	2	21	2-3	肉眼黒点 = 1
24	4:50		3	129	6	23	9	152	242	4	2	4	92	2-5	" = 1
25			-	-	-	-	-	-	-	-	-	-	-		R
26	2:30		4	139	5	17	9	156	246	3	4	5	149	3	肉眼黒点 = 1
27	3:56		4	106	6	19	10	125	225	3	4	6	95	3-4	" = 1
28	4:18		4	81	5	3	9	94	184	4	3	4	61	3	" = 1
29	2:53		5	60	4	9	9	69	159	3	3	3	10	3-4	" = 1
30	3:00		3	41	4	20	7	61	131	3	2	2	16	3-4	
31	1:30		4	30	5	18	9	48	138	3	2	4	14	5	
Sum			1.756		1.066		2.822					1.336			
Mean			79.8		48.5		128.3	128.3				60.7			

Days 22 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 projection 15^{cm}
 4 5 6 7 8 9 10 11 12 1 2 3 4
 $36637 \div 265 = 138.3$
 $\sqrt{18134} = 68.4$
 $\sqrt{18503} = 69.8$

MONTHLY REPORT OF SUNSPOT OBSERVATION
 NOVEMBER 1969 Observer-K. Fujimori Suwa, Nagano $N=35^{\circ}7'20''$
 $E=135^{\circ}7'20''$

Date	Time		N		S		Total		log ₁₀ +	Facula		Cent.		Sejings	Remarks
	U.	T.	g	f	g	f	g	f		E	W	g	f		
1	2 ^h	06 ^m	4	19	5	11	9	30	120	3	2	5	12	2-3	
2	1:	33	5	27	3	4	8	31	111	3	2	5	26	5	
3	2:	21	7	31	2	3	9	34	124	3	1	5	25	3	
4															C
5															M
6	2:	00	8	57	1	3	9	60	150	2	1	5	30	2-3	
7															M
8															C
9															M
10	2:	52	4	46	2	9	6	55	115	2	3	3	36	4	
11	3:	05	6	55	2	5	8	60	140	3	4	5	45	2-3	
12	3:	40	4	28	1	2	5	30	80	2	3	3	24	1-2	
13	3:	43	5	23	1	5	6	28	88	3	3	2	7	3-4	
14	3:	22	4	28	1	2	5	30	80	3	3	1	2	3	
15	1:	30	4	35	0	0	4	35	75	3	2	1	6	3	
16	3:	35	4	29	1	2	5	31	81	2	2	1	7	1	
17															M
18	3:	41	1	63	1	3	2	66	86	2	2	0	0	1-2	肉眼黒点=2
19	3:	35	2	94	2	3	4	97	137	2	2	1	35	2-3	" =2
20															M
21	3:	30	4	152	2	4	6	156	216	3	2	2	131	2-3	肉眼黒点=2
22															C
23	4:	10	4	145	2	3	6	148	208	3	5	4	145	2	肉眼黒点=2
24															M
25	3:	38	3	90	2	5	5	95	145	4	3	2	34	1	肉眼黒点=1
26	3:	10	3	80	4	15	7	95	165	4	2	1	15	1	" =1
27	3:	28	6	68	4	19	10	87	187	3	4	2	5	2	
28	3:	50	6	21	6	23	12	44	164	3	3	3	8	1-2	
29	3:	44	3	10	9	29	12	39	159	2	3	7	23	3	肉眼黒点=1
30															R
Sum				1.977		660		2.631					1.196		
Mean				98.6		33.0		131.6	131.6				59.8		

Days 20 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 Projection 15^{cm}
 5 6 7 8 9 10 (11) 12 1 2 3 4 5
 $37447 \div 265 = 141.3$ $N18034 = 68.1$
 $S19413 = 72.3$

MONTHLY REPORT OF SUNSPOT OBSERVATION
 DECEMBER 1969 Observer - K. Fujimori Suwa, Nagano A 138723"
4+362'12"

Date	Time		N		S		Total		100%		Facula cent.		Secing	Remarks	
	U.	T.	g	f	g	f	g	f	E	w	g	f	5-1		
1	3	27 ^m	4	20	7	24	11	44	154	3	2	5	36	3	
2	4	05	4	16	6	29	10	45	145	1	1	5	25	1-2	
3	2	19	3	19	5	27	8	46	126	2	3	3	17	2	
4			-	-	-	-	-	-	-	-	-	-	-	-	C
5	3	21	6	31	5	31	11	62	172	2	4	6	22	3	
6	3	17	4	21	5	21	9	42	132	4	4	4	19	3	
7			-	-	-	-	-	-	-	-	-	-	-	-	R
8			-	-	-	-	-	-	-	-	-	-	-	-	C
9	4	34	2	6	2	11	4	17	57	2	4	2	12	2	
10	3	07	3	6	2	15	5	21	71	1	4	1	3	2	
11	3	30	1	3	1	4	2	7	27	1	4	0	0	1-2	
12			-	-	-	-	-	-	-	-	-	-	-	-	C-R
13	5	55	4	10	3	22	7	32	102	3	2	1	2	2-3	
14			-	-	-	-	-	-	-	-	-	-	-	-	M
15	3	20	6	22	3	27	9	49	139	4	1	1	4	1-2	
16	3	20	3	12	2	12	5	24	74	-	-	3	11	1	不确实
17	3	25	6	36	2	33	8	69	149	2	5	7	46	2	
18			-	-	-	-	-	-	-	-	-	-	-	-	M
19	3	28	5	34	3	32	8	66	146	2	0	7	60	2	
20	3	28	5	36	4	39	9	75	165	2	1	6	64	1-2	
21	3	10	5	33	5	55	10	88	188	5	3	2	45	4	
22			-	-	-	-	-	-	-	-	-	-	-	-	M
23	3	25	5	30	5	45	10	75	175	3	4	2	32	2	肉眼黒点 = 1
24	3	28	5	25	6	47	11	72	182	3	4	4	47	2	" = 1
25	3	28	4	25	8	70	12	95	215	4	2	5	66	2	" = 1
26			-	-	-	-	-	-	-	-	-	-	-	-	M
27			-	-	-	-	-	-	-	-	-	-	-	-	M
28	3	25	6	24	7	71	13	95	225	6	3	6	30	2-3	
29	3	25	6	19	8	62	14	81	221	4	5	7	45	2-3	
30	3	50	5	26	6	44	11	70	180	-	-	3	22	1	不确实 肉眼黒点 = 1
31	3	50	5	50	5	46	10	96	196	5	6	1	31	2-3	
Sum			1474		1767		3241					1451			
Mean			67.0		80.3		147.3	147.3				66.0			

TABLE OF SUNSPOT GROUPS DECEMBER 1969

Days 22 100^{mm} Reflector x56 Direct Vision
 80^{mm} Refractor x67 projection 15^{cm}
 6 7 8 9 10 11 (13) 1 2 3 4 5 6 N19527 = 67.9
 36299 ÷ 258 = 140.7 51872 = 12.8