



# SUN-SPOT OBSERVATIONS

FEBRUARY 1961 Observer-K. Fujimori Locality-SUWA

Date	J.S.T.	N		S		Total		10g+f	Facula		Central zone		Seeing	Remarks
		g	f	g	f	g	f		E	W				
1	10 10 <sup>m</sup>	3	35	1	4	4	39	79	3	2	1	19	3	A
2														M
3														C
4	12 0	3	29	4	23	7	52	122	4	1	2	17	3-4	A
5														C
6														S
7														R
8														M
9	13 20	1	15	4	15	5	30	80	1	4	4	28	2-3	
10	11 0	1	18	4	16	5	34	84	1	2	4	32	2	
11														C
12														M
13	11 25	1	14	1	2	2	16	36	1	2	1	2	3	
14														M
15	13 55	1	7	1	3	2	10	30	1	2	0	0	4	
16	14 30	0	0	1	1	1	1	11	-	-	0	0	2	不観測
17	11 35	1	5	1	1	2	6	26	2	1	0	0	4	
18	12 50	1	1	1	1	2	2	22	2	1	0	0	2	
19	12 45	1	1	1	2	2	3	23	1	2	0	0	2	
20	12 55	1	2	1	7	2	9	29	2	1	1	2	3	
21														C
22	12 25	1	2	2	8	3	10	40	2	0	2	8	2	
23	14 30	1	2	3	16	4	18	58	1	1	2	12	4	
24	10 30	1	4	3	18	4	22	62	2	0	3	18	3	
25	11 5	1	2	3	22	4	24	64	2	0	4	24	4	
26														M
27	10 40	1	2	3	9	4	11	51	3	2	2	3	4	
28	12 15	1	2	1	3	2	5	25	2	3	1	2	3	
Total			341		501		842					437		
Mean			20.0		29.5		49.5					25.7		

観測日数 17日 (Days) Instrument 100<sup>m</sup>/m L } parall. Method { D 9.627 = 40.1  
 A = Akiko Fujimori 60<sup>m</sup>/m R } x56 { P  
 8 9 10 11 12 / ② 3 4 5 6 7 8 M12365 = 51.5  
 20992 ÷ 240 = 87.5 S 8627 = 35.9

# SUN-SPOT OBSERVATIONS

MARCH 1961 Observer-K. Fujimori Locality-SUWA

Date	J.S.T	N		S		Total		10g <sup>+</sup>	Facula	Central Zone	Seeing	Remarks		
		g	f	g	f	g	f							
1	13 0 <sup>m</sup>	1	2	0	0	1	2	12	0	3	0	4		
2	13 55	2	5	3	9	5	14	64	2	2	1	3	5	
3														R
4	16 0	1	2	3	7	4	9	49	-	-	0	0	2	
5	14 5	1	1	2	6	3	7	37	2	3	0	0	3	
6	13 0	1	5	2	10	3	15	45	2	1	2	14	2-3	
7	10 40	1	8	1	6	2	14	34	1	1	2	14	2-3	
8	11 50	1	8	2	8	3	16	46	1	1	2	13	2-3	
9	11 50	1	3	3	10	4	13	53	1	0	2	7	2	
10	14 20	1	3	1	5	2	8	28	1	0	0	0	3-4	
11	11 50	1	2	1	9	2	11	31	1	2	0	0	3	
12	10 20	0	0	1	6	1	6	16	0	3	1	6	4	
13														R
14														R-C
15	12 40	3	10	1	5	4	15	55	1	1	1	5	3	
16														R
17	13 0	2	5	4	8	6	13	73	2	2	1	23	4	地球 60° 附近 白磁針
18	11 40	3	14	2	4	5	18	68	1	2	3	15	5	
19														R
20														C
21	12 55	4	6	0	4	4	6	46	-	-	2	3	2	
22	12 45	4	15	0	4	4	15	55	2	1	1	83	4	
23	7 30	4	22	0	4	4	22	62	2	1	1	12	3	
24	13 0	4	36	0	4	4	36	76	1	2	1	10	2	
25	12 45	4	33	1	5	5	34	84	1	1	2	12	3	
26														
27														
28	14 30	4	20	3	7	7	44	114	2	2	2	14	2	
29	12 45	3	17	5	8	8	48	128	4	2	2	153	4	
30	12 45	2	14	4	6	6	44	104	2	3	1	172	3	
31	10 30	2	10	5	7	7	39	109	2	4	2	204	5	
Total			741		648		1389					480		
Mean			32.2		28.2		60.4					20.9		

S (2日 南 = 4月 27.2°  
 S (3月 = 18° 45' 56"  
 S (大層と存, E) (25cm) 20cm

観測日数 23日 Instrument 100mm L } parall Method { D x 56 9076 = 37.5  
 60mm R } P  
 9 10 11 12 1 2 (3) 4 5 6 7 8 9 W 11871 = 49.1  
 1976 / 242 = 81.7 S 7890 = 32.6

# SUN-SPOT OBSERVATIONS

APRIL 1961 Observer - K. Fujimori Locality - SUWA

Date	J. S. T.	N		S		Total		log <sub>10</sub> f	Facula		Central Zone		Seeing	Remarks
		g	+	g	+	g	+		E	W	g	+		
1	11 55 <sup>m</sup>	2	7	5	51	7	58	128	0	2	4	44	5	
2	14 05	0	0	5	33	5	33	83	2	0	5	33	4~5	A
3	16 0	0	0	6	32	6	32	92	2	0	4	16	3~4	A
4	11 0	0	0	6	19	6	19	79	1	0	3	12	1~2	
5	13 10	1	6	4	25	5	31	81	1	3	3	27	3~4	
6														M
7	8 45	1	17	4	16	5	33	83	1	3	2	19	4	
8														C
9	14 40	1	11	1	4	2	15	35	-	-	1	4	2-3	A
10	12 50	1	12	2	5	3	17	47	1	1	2	5	3-4	
11														M
12														C-R
13	12 25	3	6	1	2	4	8	48	3	1	1	3	3	
14	13 15	2	13	1	2	3	15	45	1	1	0	0	3	
15														R
16	13 30	3	27	3	8	6	35	95	3	1	3	29	4	
17	12 30	3	18	2	9	5	27	77	3	1	3	19	4	
18	13 0	3	20	2	3	5	23	73	2	2	2	18	3	
19	13 0	4	20	2	5	6	25	85	1	1	2	10	4	
20	12 20	4	11	1	3	5	14	64	0	3	0	0	4	
21														M
22														R-C
23														C
24	12 50	1	2	2	4	3	6	36	2	1	2	3	3~4	
25	10 50	1	2	1	9	2	11	31	1	0	0	0	2	
26	12 40	1	2	1	22	2	24	44	1	3	0	0	3	
27	14 0	2	3	1	32	3	35	65	-	-	0	0	2	
28	13 0	3	12	1	32	4	44	84	1	2	1	7	3	
29														C
30	12 0	3	28	2	21	5	49	99	0	1	3	44	2-3	
Total			607		867		1474					703		
Mean			28.9		41.3		70.2	70.2				33.5		

観測日数 21日 観測器 弍 } 100<sup>mm</sup> L x 56 直視用  
 } 60<sup>mm</sup> R x 48 投影用 (位置記録) } 赤道儀  
 A = 代理観測者 (藤森 昭子) } 中 2971 = 33.9  
 10 11 12 / 23 (9) 5 6 7 8 9 10 } N 10675 = 45.4  
 17270 ÷ 235 = 73.5 } S 6595 = 28.1

# SUN-SPOT OBSERVATIONS

MAY 1961 Observer-K. Fujimori Locality-SUWA

Date	J. S. T.	N		S		Total		10gff	Facula E	Central Zone W	Seeing	Remarks
		+	-	+	-	+	-					
1												M
2	11 15 <sup>m</sup>	2	25	1	10	3	35	65		3 35	2	
3												C-R
4												R
5	13 25	2	15	1	5	3	20	501	2	0 0	3	
6	15 0	3	5	0	0	3	5	351	2	0 0	3	
7												C
8	11 55	2	11	0	0	2	11	311	1	0 0	3	
9	13 0	3	21	0	0	3	21	513	1	1 1	5	
10	12 18	2	22	0	0	2	22	420	0	2 8	5	
11												M
12												R
13	11 20	1	16	0	0	1	16	260	0	1 16	5	A
14	12 30	2	9	0	0	2	9	29		1 7	2	
15	13 30	2	6	0	0	2	6	263	2	0 0	5	A
16												
17	13 30	2	12	0	0	2	12	320	1	1 7	4	A
18												M
19												M
20												M
21												M
22												M
23												M
24												R
25												M
26	13 15	2	26	0	0	2	26	460	1	2 26	3	
27	13 0	3	24	0	0	3	24	540	0	3 24	3	
28												M
29	14 29	1	9	0	0	1	9	192	2	1 43	4	
30	12 40	1	5	2	6	3	11	410	1	0 0	4	
31												M
Total		486		61		547				278		
mean		347		4.4		39.1				19.9		

観測日数 14日 観測器械 { 100<sup>mm</sup> L x56, 直視用.  
 A = 代理観測者(藤森昭子) ( 60<sup>mm</sup> R x48 投影用(位置記録用) } 赤道儀  
 11 12 / 2 3 4 ⑤ 6 7 8 9 10 11  
 $16013 \div 231 = 69.3$   $n/10071 = 43.6$   
 $s/5942 = 25.7$

# SUN SPOT OBSERVATIONS

JUNE 1961 Observer-K. Fujimori Locality-SUWA

Date	J.S.T.	N		S		Total		10gff	Facula		Central Zone	Seeing	Remarks
		#	+	#	+	#	+		E	W			
1	13 <sup>h</sup> 15 <sup>m</sup>	2	3	1	3	3	6	36	1	3	2	5	3-4
2	12 35	1	3	2	12	3	15	45	2	2	1	3	2-3
3													M
4													M
5	12 50	3	9	1	15	4	24	64	0	1	2	1.7	4
6	12 42	1	3	1	11	2	14	34	0	1	2	1.4	2
7	12 41	1	5	1	20	2	25	45	0	1	2	2.5	2
8													M
9													R
10													M
11	12 45	3	30	1	3	4	33	73	2	2	0	0	2-3
12	13 10	2	29	3	9	5	38	88	2	2	0	0	4
13													M
14													C
15	13 30	2	42	4	27	6	69	129	2	2	1	4	4
16													C
17													R-C
18	13 10	3	20	5	51	8	71	151	3	2	2	4	3-4
19	12 30	3	16	3	41	6	57	117	3	2	2	3	3
20	12 50	4	48	3	28	7	76	146	3	2	3	4	3
21													C
22	13 14	2	78	3	16	5	94	144	-	-	4	5	2-3
23													C
24													C
25													R
26													R
27													R
28													R
29													R
30	13 50	1	32	1	7	2	39	59	1	1	1	3	3
31													
Total		598		533		1,131				537			
Mean		46.0		41.0		87.0		87.0		41.3			

水字

観測日数 13日 観測器械 { 100<sup>mm</sup> L x 56 直視用

観測地 (  $\lambda = -138^{\circ} 7'$  ) (  $\phi = 36^{\circ} 2'$  ) 60<sup>mm</sup> R x 48 投影用 (位置記録用)

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

$15189 \div 236 = 64.4$

$N 9309 = 39.4$

$S 5880 = 24.9$

赤 7/29 = 3R2



# SUN-SPOT OBSERVATIONS

AUGUST 1961 Observer - K. Fujimori Locality - SUWA

Date	J.S.T	N		S		Total		log f	Facula		Central zone	Seeing	Remarks
		g	f	g	f	g	f		E	W			
1													M
2													C
3													C
4													C
5													C
6													M
7	13 00	0	0	0	0	0	0	02	3	0	0	3	Δ
8													M
9													R
10	13 30	3	32	1	1	4	33	733	2	1	11	2	
11													M
12	14 0	3	40	2	9	5	49	992	1	1	17	2-3	
13	15 30	4	56	3	16	7	72	1422	2	2	23	4-5	
14	15 30	5	45	2	9	7	54	1241	2	5	43	3	
15													M
16	14 05	7	50	2	12	9	62	1522	1	7	56	3	
17	8 30	4	28	4	9	8	37	1172	1	3	20	3-4	
18	13 0	4	22	2	2	6	24	840	2	3	17	2	
19	12 55	4	22	1	2	5	24	742	3	3	10	4	
20													C
21	12 41	3	10	1	1	4	11	513	2	1	5	2	
22	12 45	1	3	1	1	2	4	24	-	1	3	2	
23	11 50	2	4	1	1	3	5	352	2	1	23	4	
24													M
25													M
26	12 45	1	22	1	3	2	25	452	2	2	25	3	
27													M
28	15 15	1	22	0	0	1	22	320	1	0	0	2	
29													M
30	13 05	2	36	1	4	3	40	102	2	1	4	5	
31	12 45	2	55	0	0	2	55	752	2	0	0	3-4	
Total			907		290		1.197				546		
Mean			56.7		18.1		74.8	74.8			34.1		

観測日数 16日 観測器 瓶 (100<sup>mm</sup> L x 56 直視) 赤道儀  
 Δ... 不確定観測 (60<sup>mm</sup> R x 48 投影 (位置 0.4)) 中 5932 = ~~5557~~  
 2 3 4 5 6 7 ⑧ 9 10 11 12 1 2  
 $12950 \div 231 = 56.1$   
 $N8432 = 26.5$   
 $S4518 = 19.6$



000 SUN SPOT OBSERVATIONS 000  
 SEPTEMBER 1961 Observer-K. Fujimori SUWA

Date	J. S. T	N		S		Total		log f	Facular E	Central Zone W	Seeing	Remarks
		#	f	#	f	#	f					
1	11 <sup>h</sup> 50 <sup>m</sup>	2	41	0	0	2	41	612	2	0 zone	3	
2	15 40	1	45	0	0	1	45	550	1	1 34	4	
3	15 15	1	47	0	0	1	47	572	0	1 47	4	
4												M
5												M
6	13 40	2	40	0	0	2	40	602	0	2 40	4	
7	12 50	4	27	0	0	4	27	671	0	1 2	2-3	
8												M
9	13 15	1	13	1	10	2	23	432	2	0 0	4	
10												M
11	14 20	1	9	1	25	2	34	542	0	0 0	0 2-3	
12	13 0	1	8	1	29	2	37	573	0	0 0	0 2	
13	8 50	1	9	1	55	2	64	841	1	1 36	3-4	
14	15 0	3	56	1	62	4	118	1580	1	4 118	5	
15												R
16												R
17	13 10	4	22	1	19	5	41	911	1	2 24	2	
18	15 50	3	22	1	17	4	39	791	1	1 19	3-4	A
19	13 50	3	16	1	4	4	20	600	3	1 5	2-3	
20												C
21												C
22	11 50	5	26	0	0	5	26	760	1	3 19	4-5	
23	16 0	3	8	0	0	3	8	38	-	2 5	1-2	A
24												R
25	13 10	4	37	1	1	5	38	882	1	1 23	3-4	
26	13 30	3	30	0	0	3	30	601	0	0 0	0 3-4	A
27												C-R
28	14 45	5	35	0	0	5	35	852	2	1 10	2-3	
29	12 45	4	23	0	0	4	23	630	1	2 10	1-2	A
30	13 15	3	37	0	0	3	37	670	0	3 18	2-3	
31												
Total		1,091		312		1,403				670		
Mean		54.6		15.6		70.2				33.5		

観測日数 20 日 観測器械 { 100<sup>mm</sup>L x 56 直視 } 赤道儀 # 5722 = 249  
 Δ... 不确实  
 A (代理) 暗子  
 3 4 5 6 7 8 (9) 10 11 12 1 2 3  
 $12618 \div 230 = 54.9$   $N 8518 = 37.0$   
 $S 41,00 = 17.8$

# 〇〇 SUN-SPOT OBSERVATIONS 〇〇

OCTOBER 1961 Observer-K. Fujimori SUWA

Date	J.S.T		N		S		Total		log f	Facula		Central Zone	Seeing	Remarks
	g	f	g	f	g	f	E	W						
1														M
2														C
3														M
4														C-R
5	13	15 <sup>m</sup>	2	11	1	9	3	20	502	1	2	102	3	
6														C
7														R
8														M
9														C-R
10														R
11	15	35	3	29	0	0	3	29	591	0	2	23	3	
12	10	30	2	27	1	5	3	32	621	0	2	21	3	A
13	14	45	2	13	1	10	3	23	530	2	2	19	3	
14														M
15														M
16	13	55	1	4	1	4	2	8	280	1	1	4	3	A
17	14	10	1	5	0	0	1	5	150	0	1	5	4	A
18	11	50	5	24	1	1	6	25	852	2	3	194	5	
19														C
20														C-R
21														C
22														M
23														R
24	14	30	0	0	1	1	1	1	111	1	1	1	2	Δ
25	12	25	0	0	1	3	1	3	132	1	1	3	2	
26	8	05	1	1	0	0	1	1	11-	-	1	1	1	Δ
27														R
28	14	50	1	4	0	0	1	4	14-	-	1	4	2	Δ
29	12	20	1	4	0	0	1	4	141	3	0	0	3	
30														C
31														M
Total			312		103		415				280			
Mean			26.0		8.6		34.6				23.3			

観測日数 12日 観測番柄 100mm L x 56 直視 赤道儀 #5668 = 25.4

Δ-不確定 A-代理 A. Fujimori (60mm R x 48 投影) #8347 = 37.4

今月は 27 の日が多し 観測は少し 456789 ⑩ 11 12 1 2 3 4 11959 ÷ 223 = 53.6 53612 = 16.2

# SUN-SPOT OBSERVATIONS

NOVEMBER 1961 Observer - K. Fujimori SUWA

Date	J. S. T	N		S		Total		log <sub>10</sub> f	Facula		Central ZONE	Seeing	Remarks
		g	f	g	f	g	f		E	W			
1	12 45 <sup>m</sup>	0	0	0	0	0	0	0.2	1	0	0	3	
2	9 30	0	0	0	0	0	0	0.1	1	0	0	4	
3													C
4	14 50	0	0	0	0	0	0	0.2	2	0	0	2	
5	14 05	1	8	0	0	1	8	1.82	1	1	8	2	
6	13 15	1	11	0	0	1	11	2.10	1	0	0	2	
7	10 10	2	14	1	4	3	18	4.81	1	2	5	2	
8													
9													
10	11 10	5	18	1	3	6	21	8.11	2	1	10	2	
11	11 20	3	23	1	3	4	26	6.61	2	1	18	2-3	A
12	14 25	2	35	1	1	3	36	6.60	1	1	28	2-3	A
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24	12 35	0	0	0	0	0	0	0.1	0	0	0	2	
25	11 20	3	6	0	0	3	6	3.61	0	1	2	2	
26	12 15	2	8	0	0	2	8	2.81	1	0	0	2-3	
27	12 50	2	6	1	3	3	9	3.92	0	0	0	3-4	
28													M
29	14 15	2	12	1	8	3	20	5.03	0	2	12	4	
30	13 20	4	35	1	8	5	43	9.32	0	3	30	2-3	
Total		446		100		546					233		
Mean		29.7		6.7		36.4					15.5		

観測回数 15日 観測器械 100<sup>mm</sup> L x 56 直視 赤道儀 φ 5144 = 24.3

A --- A. Fujimori

60<sup>mm</sup> R x 48 投影

毎年 11月下旬から 12月中旬は Seeing 不良の日が多い

5 6 7 8 9 10 ⑪ 12 1 2 3 4 5 17995 = 37.9

Zurich = 30.3 10864 ÷ 211 = 51.5 52869 = 12.6

# SUN-SPOT OBSERVATIONS

DECEMBER 1961 Observer - K. Fujimori SUWA

Date	J.S.T	N		S		Total		log f	Facula		Central zone		Seeing	Remarks
		#	+	#	+	#	+		E	W	#	+		
1														R
2	12 <sup>h</sup> 45 <sup>m</sup>	5	34	1	6	6	40	1.00	1	1	5	33	3	
3	15 0	3	28	1	4	4	32	0.72	0	0	3	30	2	
4														C
5														M
6	10 25	3	34	0	0	3	34	0.64	0	2	1	29	2	
7	12 10	2	20	1	3	3	23	0.53	0	2	0	0	2	
8														M
9	12 50	2	12	0	0	2	12	0.32	0	1	0	0	3	
10	13 15	1	3	0	0	1	3	0.13	1	2	0	0	2-3	
11	13 30	0	0	0	0	0	0	0.01	0	0	0	0	3	
12														
13														
14	13 10	0	0	0	0	0	0	0.00	0	0	0	0	2	
15	13 10	0	0	0	0	0	0	0.03	0	0	0	0	2	
16														
17														
18														
19														
20														
21	11 30	0	0	1	8	1	8	0.18	1	0	0	0	4	
22	15 10	0	0	2	5	2	5	0.25	2	0	0	0	2	
23	14 10	1	13	2	8	3	21	0.51	1	0	1	13	2	
24	12 45	2	16	3	14	5	30	0.80	1	0	1	15	1-2	
25	10 10	2	24	3	16	5	40	0.90	1	2	2	12	2	
26	14 55	3	24	2	16	5	40	0.90	1	3	2	16	3	
27	13 30	3	24	2	10	5	34	0.84	1	2	4	28	3	
28	11 40	3	21	2	7	5	28	0.78	1	1	4	27	2	
29	14 10	2	19	1	5	3	24	0.54	1	0	2	19	3	
30	13 40	2	12	1	5	3	17	0.47	2	1	1	4	2	
31	11 10	2	9	1	5	3	14	0.44	0	1	0	0	4	
Total		653		342		995					486			
Mean		32.7		17.1		49.8					24.3			

観測日数 20日 観測器械 (100<sup>mm</sup>L x56直視) 赤道儀  
 (60<sup>mm</sup>R x48投影)  
 6 7 8 9 10 11 (13) 1 2 3 4 5 6  
 Zurich = 37.7. 10426 ÷ 207 = 50.4  
 # 5079 = 24.5  
 N 7788 = 37.6  
 S 2638 = 12.7