

TABLE OF SUNSPOT GROUPS  
JANUARY 1977

Heliographic																																		
Group NO.	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
N5229	30-32	16-24	B3 D12 D7 B3																					1hd 4-5 (DE) 2-5 (B-C)						(*) Dec. 3.				
N3230	(3)	271	A1 J2 J2 A1 A1 *																					4-6 (A) 3-6 (JA)						N3227				
N3231	19-20	230-234																															A1 (B) *	
N3232	11	149																															A1 * 16(A) 16-17(A)	
22.4 N3233	19-20	137-141																															B3 C7 A1 17 (B) 17-19 (CA)	
N3234	22-25	83-86																															B3 .. H11 H11 H6 21, 24-26 (AJT) 21-26 (AGT)	
N3235	28-31	17-20																															A2 J2 C3 J3 J2 * 21-26 (JA) 22-28 (JA)	
N3236	(25)	6																															J2 A2 A2 22-24 (JA) * 22-24 (J)	
N3237	24-27	254-263																															J3 (C) Feb 5	
S2597	=																																C6 C6 J2 J2 J2	
S2598	28-31	203-214																															B2 C14 - D21 D13 E20 C14 C7 12-17 (D)	
S2599	21	157																															A1 16(A)	
24.9 S2600	27-28	42-44																															B4 A1 A2 24-28 (B-A)	
S2601	18-21	49-54																															* C10 C8 28-29 (CD)	

Remarks,

- . - Central meridian passage
- \* - Prearrange-day of meridian passage
- = - Continued group from last month

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS  
FEBRUARY 1977

Group NO.	Heliographic																													
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
N3237			B10 D20 D1   D16 B1   .. B4																											
N3238	4-15	195-197	*																											
N3239	0-3	137-143	A1 B3 C6 D12 D8 - D6 C4 A1																											
N3240	19-22	139-145	B3 D5 - C5 B4 C3 J2																											
N3241	10	143	* A2 A1																											
S2602	40-43	156-170	A1 .. B4 - E30 E33 E36 E32 E18 - G8 G11 E9 B5																											
S2603	19-23	53-56	J2 - J3 J3 J3 C7 J3 C4 C4 J2 J2 J2 J2																											

11-9  
31-3

S2601 回歸

Remarks,

- . - Cental meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last manth

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS  
MARCH 1977

Group NO.	Heliographic		Date																																
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
N3242	24	266																																	
N3245	16-17	201-202																																	
N3244	18-21	197-202																																	
N3245	23-24	264-266																																	
N3246	19-20	311-315																																	
S2604	21	58																																	
S2605	28-30	48-51																																	

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS  
APRIL 1977

Group NO.	Heliographic																																				
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
N3247	23-26	248-253	B3	B5	B3	A1																															
N3248	17	241-243	*				B2	A1																													
S2606	3	137					A1		*																												
S2607	18-22	12-28												C3	D12	D20	D22	-	D14	C12	C6	D5	G11	C6	G9	G3											
S2608	25-27	56-63											*					B2	B4																		
S2609	26	72										*										A1															
S2610	21-22	200-201																														J2	J2	-	J4	J4	(*) May 2 =

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori



## TABLE OF SUNSPOT GROUPS

MAY 1977

Heliographic			MAY 1977																																
Group NO.	lati- tude	Longi- tude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
N3249	33-39	125-131																																	
N3250	33	117																																	
N3251	19-20	125-128																																	
N3252	28-30	20-23																																	
N3253	17	178																																	
N3254	17-21	203-213																																	
N3255	17-20	119-125																																	
S2610	=																																		
S2611	25-26	62-67																																	
S2612	18-25	9-21																																	
S2613	26-27	328-333																																	
S2614	22-23	197-203																																	
S2615	9	225																																	

Remarks,

- o - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS

JUNE 1977

Group No.	Helicographic																																Remarks
	Lat- tude	Longi- tude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
N3254	=		D22 - C7 B2																														
N3255	=		J4 - C4 C3 - B6																														(*) May 28
N3256	18-19	144-148	* B4 D5																														
N3257	33	348																															
N3258	18	211	A2																														
N3259	12-18	140-149	A1 J2 J2 J2 J2 - - A1																														N3254 recur
N3260	32-33	229-232	M2 - - H29 H44 D43 D44 -																														= naked eye N3256 recur
S2616	23-26	61-72	J3 C2 - E19 - D16 D16 - C14 C7 D5 J2																														
S2617	6	150	* A1																														
S2618	20-22	0-6	C3 C5 - J3 C3 J2 C3 - J3 - - J2																														
S2619	9	232	B1 *																														
S2620	20-23	199-210	A1 C4 C15 C12 C23 - - C31 C34 C16 C12 -																														= S2614 recur
S2614	=	"	B5 - B4 B2																														(*) May 29

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori

eye=1  
eye=1  
eye=1  
RKS

TABLE OF SUNSPOT GROUPS  
JULY 1977

Group NO.	Heliographic		JULY 1977																																																																																			
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																																					
N3259	=		C33 C26 C11 H8 H3 J2																																																																																			
N3261	38-40	126-137	87 B13 E17 E15 48 A1																																																																																			
N3262	18	33	J2 J2 J2 A1 *																																																																																			
N3263	19-22	91-96	* A2 D13 D10 C5 J2																																																																																			
N3264	14-15	145-146																																																																																				
N3265	18-19	184-189																						J2	J2	J2	J2	J2	J2	J3	J3	J2	J2	N1259 recur'																																																				
N3266	19	244																						B3 B4		A1	B9 C6																																																											
N3267	11	216																						*																																																														
N3268	21	143																						*																																																														
N3269	29	107																																											A1 A1 A1 *																																									
S2620	=		A1																																																																																			
S2621	25	157	A1																																																																																			
S2622	19-22	356-0	J2 J2 J2 J2 J2 J2 — C6 D8 A1																																																																																			
S2623	24	212																						A1																					*																																									
S2624	23-27	129-135																																																																																				
S2625	30-31	155-159																																											B4 B6 B7 B5 A3																					B2																				

(o) June 29, 30  
(\*) June 30  
  
N1259 recur'  
  
(o) June 28  
(\*) June 29  
S2618 Rec  
S2614 Rec  
S2620 Rec

Remarks,

- . - Central meridian-passage
- \* - Rearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS

AUGUST 1977

Heliographic		AUGUST 1977																															
Group NO.	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
N3270	27-28	111-118	B5 C5 J2																														
N3271	20	115	A1 A1																														
N3272	19	38-39	A2 *																														
N3273	20-24	321-330	J3 C8 D21 C37 - C36 C27 - C9 - J2 J2																														
N3274	18-20	237-243	J2 - B3 B7 - D9 - D9																														
N3275	29-30	213-215	A1 - A2 C4 A3 *																														
N3276	21	263-266	B2																														
N3277	25-26	212-218	D6 C6 C6 - C5 - A1																														
N3278	18	194	J2 J2 J3																														
N3279	20	176-180	C5 - B2																														
N3280	18	198-201	* B2																														
N3281	19-21	158-163	*																														
N3282	25-26	113-118	* C3 C6																														
N3283	22-25	310-319	* D6 C5 C8 C4 B2																														
S2626	18	6-9	* B3																														
S2627	27	155	A1																														
S2628	21-22	204-208	* A1																														
S2629	24-27	90-103	* B5																														
S2630	0-31	36-42	A2 - C11 C19 E16 E17 E16 E15 C6 B2 B3 B5 C6 B4																														

22.8

25.0

(\*) 10.1.27  
(\*) 10.1.27

N3265

A1 (\*) Sep. 6

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori

TABLE OF SUNSPOT GROUPS

Group NO.	Heliographic		SEPTEMBER 1977																															
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
N3283	=													J2	J2	A1																		
N3284	19-20	66-68																																(*) Aug. 29
N3285	21	52																																(*) Aug. 30
N3286	13-15	340-346																																
N3287	19	242-245																																N3274 recur
N3288	5-10	190-203																																
N3289	13-16	199-210																																
N3290	24	111																																N3282 recur
N3291	22-23	149																																
N3292	26-28	58-60																																
N3293	13-16	342-347																																
N3294	29-32	333-342																																
N3295	16-17	42-47																																
N3296	19-22	297-301																																
S2629	=																																	A1 Aug. 26
S2630	=																																	A2 Aug. 21
S2631	20-25	94-104																																B2 — D29 D28 — B25 D13 — D5 D4 H3 S2629 recur
S2632	20	24																																A1 *
S2633	20	6-11																																B2 *
S2634	23	115																																* A1
S2635	19-23	298-307																																* C6 (1) Oct. 4

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer  
K. Fujimori

TABLE OF SUNSPOT GROUPS  
OCTOBER 1977

Group NO.	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
N3293	=																																		
N3294	=																																		
N3295	=																																		
N3296	=																																		
N3297	3-9	200-210																																	
N3298	11-13	207-209																																	
N3299	15	205																																	
N3300	17-19	158-161																																	
N3301	19	259-262																																	
N3302	22-28	198-199																																	
N3303	21-23	106-111																																	
N3304	16-18	170-175																																	
N3305	22-20	160-163																																	
N3306	20-23	143-149																																	
N3307	22	163-167																																	
N3308	25-26	102-104																																	
N3309	16	350																																	
N3310	19-22	325-335																																	
N3311	28-32	323-331																																	
N3312	19	43																																	
N3313	18-21	245-257																																	
S2635	=																																		
S2636	25-26	27-29																																	
S2637	23-25	78-88																																	
S2638	25-26	40-41																																	
S2639	16-20	338-347																																	
S2640	22-25	263-271																																	

(\*) Sep. 27

N3288, Recm.

(\*) N3301 Nov. 5 =

(\*) Sep. 28

(\*) Nov. 3 =

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer  
K. Fujimori



TABLE OF SUNSPOT GROUPS

NOVEMBER 1977

Group NO.	Heliographic																																		
	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
N3311	=																																		
N3313	=		58																																
N3314	(23)	135-138	D9 - D10 - C12 G14 J7 J4 A1 A1																																
N3315	(15)	155																																	
N3316	(35-38)	77-83																																	
N3317	(29)	64																																	
N3318	(25)	133																																	
N3319	20-25	59-66																																	
2-4 N3320	(14-15)	27-32																																	
N3321	(13-14)	101-104																																	
N3322	(35)	67																																	
N3323	(23-25)	26-28																																	
N3324	(14-17)	250-253																																	
S2639	=		83																																
S2640	=		J3 - C6 - C4 J2 C3 J2 J2																																
S2641	(22-23)	145-148																																	
S2642	(24-25)	139-147																																	
2-4 S2643	(23-25)	188-194																																	
S2644	(24)	136																																	
S2645	(17-20)	51-52																																	
S2646	(25)	38																																	
S2647	(18-23)	196-208																																	

(\*) Oct. 30  
N3361  
recur

(\*) Dec. 2  
(\*) Oct. 29

D6 (\*) Dec. 5, 6,

Remarks,

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer  
K. Fujimori

TABLE OF SUNSPOT GROUPS

DECEMBER 1977

Group NO.	Heliographic Latitude	Heliographic Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
N3324	=																																			
N3325	18-19	259-260																																		
N3326	14-16	287-291																																		
N3327	15-17	223-228																																		
N3328	22-24	87-94																																		
N3329	0-2	161-157																																		
N3330	14-17	47-48																																		
N3331	13	36-39																																		
N3332	20-22	319-329																																		
N3333	23	109																																		
N3334	18	18-20																																		
N3335	13-14	31-33																																		
N3336	15	255																																		
N3337	18-20	248-253																																		
N3338	18-22	232-242																																		
S2647	=																																			
S2648	26-27	188																																		
S2649	24-29	125-144																																		
S2650	17-18	223-225																																		
S2651	17	188-193																																		
S2652	1	159																																		
S2653	22	72																																		
S2654	22-24	57-61																																		
S2655	25-28	352-360																																		
S2656	26	3																																		
S2657	28	293																																		
S2658	18-20	201-207																																		
S2659	21	273																																		
S2660	15-21	175-183																																		

- . - Central meridian-passage
- \* - Prearrange-day of meridian-passage
- = - Continued group from last month

Observer

K. Fujimori