TABLE OF SUNSPOT GROUPS

JANUARY 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4312	9	180	-	Jan. 4	Jan. 4			A 1
N4313	6-8	137-144	-	Jan. 4	Jan. 7			D12 C 9 D 7 C 3
N4314	9-10	105	Jan. 4	Jan. 4	Jan. 4		A 3	
N4315	4-7	0-6	Jan.12	Jan. 6	Jan.13	J 2 C 7 C 7 C 7 C 9 B11	B 4	B 5
N4316	8-10	348-350	Jan.13	Jan. 8	Jan.13	A 2 A 2 A 1	A 1	
N4317	1-6	344-350	Jan.13	Jan. 8	Jan.17	D10 D10 D12 D16 D11	D19	- B14 - C 8
N4318	17	53	-	Jan. 9	Jan. 9			A 1
N4319	15-17	39-46	Jan. 9	Jan. 9	Jan.13		B 2	D 9 B 9 B 4 C 4
N4320	9-10	53-54	-	Jan.10	Jan.12			J 3 A 2 A 1
N4321	2-6	277-282	Jan.19	Jan.13	Jan.23	A 1 - C10 - D14 -	-	- D10 C 3 C 3
N4322	11	331	Jan.15	Jan.15	Jan.15		A 2	
N4323	15-17	235-240	Jan.22	Jan.17	Jan.25	J 2 - - - C 5	C 8	C 5 - J 2
N4324	19	240	-	Jan.21	Jan.21	A 1		
N4325	8-12	189-196	Jan.25	Jan.21	Jan.30	J 4 D 8 C 8 -	B 7	- C13 C11 C 7 A 3
N4326	15-16	223-225	Jan.23	Jan.22	Jan.25	A 2	C 4	- J 4
N4327	22	160	-	Jan.23	Jan.23	A 1		
N4328	12	199	Jan.25	Jan.25	Jan.25		J 2	
N4329	9	240-242	-	Jan.27	Jan.27			A 2
N4330	24-25	156-158	-	Jan.27	Jan.27	A 2		
N4331	12-17	84-94	Feb. 2	Jan.27	Feb. 6	B 3 D10 D12 C12 C18 -	C14	C12 C 8 J 2 B 3
N4332	19-20	169-172	-	Jan.28	Jan.30			B 2 B 2 B 2
N4333	13-14	68-74	Feb. 3	Jan.29	Feb. 4	B 3 C 5 C 5 - J 2	A 2	A 1
N4334	17-20	60-64	Feb. 4	Jan.29	Feb.10	H 2 H 4 H 4 - H 3 H 6	H 4	H 3 H 2 H 2 H 3 C 5 H 5
N4335	13-16	53-56	-	Jan.31	Feb. 4	J 2 - J 2 J 2 B 3		

							C.M.	
S3568	11	130	-	Jan. 1	Jan. 1	A 1		
S3569	12-17	65-77	Jan . 7	Jan. 4	Jan.13	B 2	B 5	D28 D33 E35 E28 G19 G 7
S3570	15-16	43-52	Jan . 9	Jan. 4	Jan. 9	B 2 C 8 C10 D 8 B 2	B 3	
S3571	14	128	-	Jan. 5	Jan. 5			A 1
S3572	5-8	50-56	Jan . 8	Jan. 7	Jan.13	A 1	D 7	D 8 D11 D 6 C 4 A 2
S3573	16	93	-	Jan. 8	Jan. 8			A 1
S3574	13	41	-	Jan.10	Jan.10			A 1
S3575	14-15	347-350	Jan.13	Jan.12	Jan.13	C 3	J 2	
S3576	21-22	314-315	-	Jan.12	Jan.15	J 2 J 2 - A 3		
S3577	18-20	332-339	Jan.14	Jan.13	Jan.17	C 7	-	B 8 - B 3
S3578	19-24	243-249	Jan.21	Jan.15	Jan.25	H 3 - D10 - - -	C13	C11 C11 - J 4
S3579	4	187	Jan.26	Jan.21	Jan.30	A 1 J 2 J 2 - J 2	-	J 2 J 2 J 2 A 1
S3580	8-12	182-189	Jan.26	Jan.21	Jan.29	J 2 J 3 J 5 - C23	-	C 7 C 7 A 1
S3581	24-25	169-177	Jan.27	Jan.21	Jan.30	C 3 D 4 D 5 - J 2 -	C 4	J 2 .. A 2
S3582	20-24	196-201	Jan.25	Jan.22	Jan.25	A 2 B 4 -	C 6	
S3583	26-29	182-189	Jan.25	Jan.25	Jan.30		C 6	- B 7 C 9 D [illegible] J 3
S3584	15-19	143-150	-	Jan.27	Jan.28	B 6 B 2		
S3585	9-14	96-108	Feb. 1	Jan.27	Feb. 7	H 8 C18 C25 D25 D18	-	D24 D 7 G 6 G 8 G 4 J 2
S3586	15-17	83-91	Feb. 2	Jan.28	Feb. 4	A 1 B 4 C 8 C 6 -	C 8	B 2 A 1
S3587	8-14	76-88	Feb. 2	Jan.28	Feb. 8	D 9 D18 E22 E13 -	E28	E23 C19 G 8 C10 J 3 J 2
S3588	4-5	87-90	-	Jan.29	Jan.30	B 3 A 1		
S3589	17	121-122	-	Jan.30	Jan.30	A 2		
S3590	8-10	55-61	Feb. 4	Jan.30	Feb. 7	J 2 C 4 - B 2 ..	B 3	B 9 C 7 A 2
S3591	20-21	117-118	Jan.31	Jan.31	Jan.31		A 2	
S3592	13-16	94-100	Feb. 1	Jan.31	Feb. 4	A 1	-	A 1 B 8 C 4

TABLE OF SUSPOT GROUPS
FEBRUARY 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M	W-Side
N4336	2-4	358- 3	Feb. 9	Feb. 3	Feb.12	J 3 J 4 D10 C 8 J 4 C 4	J 3	A 1 D 5 A 2
N4337	7-13	324-343	Feb.10	Feb. 4	Feb.16	A 1 D 5 F17 F16 F34 F46	F60	F57 F50 F62 - - F29
N4338	27	356	-	Feb. 5	Feb. 6	A 1 A 1		
N4339	0-5	11-19	Feb. 7	Feb. 6	Feb.12	D 8	C 5	C 3 J 2 J 2 J 2 A 1
N4340	9-10	358- 0	-	Feb. 6	Feb. 7	A 3 A 1		
N4341	19-20	336-339	Feb.10	Feb. 6	Feb.10	A 1 A 1 A 1 A 1	B 6	
N4342	8-10	2-6	-	Feb.10	Feb.13			A 3 B 3 D 6 C 4
N4343	15	350-353	-	Feb.11	Feb.11			B 3
N4344	27	348-351	-	Feb.11	Feb.12			C 3 A 1
N4345	15-21	254-268	Feb.16	Feb.11	Feb.22	J 2 C 5 C11 - -	C48	- - - - D13 B 9
N4346	8-13	258-261	Feb.16	Feb.11	Feb.22	J 2 J 2 H 5 - -	H 2	- - - - J 2 J 2
N4347	14-15	231-240	Feb.18	Feb.13	Feb.22	D 4 - - D 9 -	-	- - C 5 J 2
N4348	23	340	-	Feb.16	Feb.16			J 2
N4349	10-13	245-255	Feb.17	Feb.16	Feb.22	J 9	-	- - - D12 C 5
N4350	8-14	191-205	Feb.21	Feb.21	Feb.28		D29	D36 - - - E13 G10 B 2
N4351	10-13	183-186	Feb.22	Feb.21	Feb.28	C 3	C 6	- - - J 2 J 2 J 2
N4352	12	177	-	Feb.21	Feb.21	A 1		
N4353	14-17	97-102	Mar. 1	Feb.26	Mar. 3	D 4 .. A 5	-	D12 D 5
N4354	21	99	-	Feb.28	Feb.28	A 1		
S3593	7	102-103	-	Feb. 2	Feb. 2			A 3
S3594	14	129	-	Feb. 3	Feb. 3			A 2
S3595	15-16	79-81	Feb. 3	Feb. 3	Feb. 3		A 2	
S3596	14-16	61-71	Feb. 4	Feb. 4	Feb.10		C 6	B 7 D20 D32 D20 D11 J 4
S3597	7	98	-	Feb. 5	Feb. 5			A 1
S3598	15-17	52-53	Feb. 5	Feb. 5	Feb. 6		A 2	J 2
S3599	7-9	38-42	-	Feb. 7	Feb.11			J 3 J 2 J 2 C 6 C 6

S3600	15-19	335-342	Feb.10	Feb. 7	Feb.13				C 6	C 7	C 5	C 9	B 4	C 6	B 6				
S3601	8-10	319-324	Feb.12	Feb.11	Feb.13						D10	C 4	C 6						
S3602	19-21	253-258	Feb.17	Feb.11	Feb.21	J 2	J 2	J 2	-	-	D16	-	-	-	-	J 2			
S3603	21	330	-	Feb.12	Feb.13								J 2	A 1					
S3604	5-7	256-264	-	Feb.21	Feb.22												D 9	D 8	
S3605	15-20	131-135	Feb.26	Feb.21	Mar. 3		H 3	H 5	-	-	-	C 7	D 7	D13	-	C 6	J 2		
S3606	20	188	Feb.22	Feb.22	Feb.22							A 1							
S3607	5-7	108-113	Feb.28	Feb.26	Mar. 3					B 3	C 9	D10	-	C 6	A 1				
S3608	13-18	91-106	Feb.28	Feb.26	Mar. 7					E30	E31	E35	-	E44	E30	-	G20	H10	A 1
S3609	8-9	97-100	Mar. 1	Feb.26	Mar. 3				J 2	J 3	A 2	-	A 2	B 3					
S3610	8-16	71-81	Mar. 2	Feb.26	Mar. 8			H16	H24	H36	-	H27	H21	-	C15	H17	H 7	H 5	
S3611	12	97	-	Feb.27	Feb.27					A 2									
S3612	10-13	46-56	Mar. 4	Feb.27	Mar.10		D 4	D 6	-	C18	C11	-	C 9	J 4	J 3	J 4	-	J 2	
S3613	2-5	34-38	Mar. 5	Feb.28	Mar.11		J 2	-	J 2	J 2	-	C 3	C 4	C 4	J 2	-	J 2	J 2	

TABLE OF SUNSPOT GROUPS

MARCH 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4355	18-20	123-126	-	Mar. 2	Mar. 3			D 2 D 5
N4356	1-3	18-22	Mar. 7	Mar. 2	Mar.12	C 3 C 3 - C 3 C 4	C 3	C 5 - J 3 J 3 J 2
N4357	9-10	7-8	Mar. 8	Mar. 3	Mar.13	J 2 - J 3 J 3 J 2	J 2	- J 2 J 3 J 2 J 2
N4358	8-10	67-71	-	Mar. 5	Mar. 7			D 6 C 7 A 1
N4359	7	2	-	Mar. 5	Mar. 5	A 1		
N4360	10-13	345-348	-	Mar. 5	Mar. 8	A 4 B 5 .. A 1		
N4361	22-24	338-340	Mar.10	Mar. 5	Mar.16	J 2 J 2 J 2 J 2 -	J 2	J 2 C 5 J 2 - - J 2
N4362	26	349	-	Mar. 6	Mar. 8	A 1 A 1 A 1		
N4363	8-9	23-26	-	Mar. 7	Mar. 8			C 4 A 1
N4364	5-11	309-324	Mar.11	Mar. 7	Mar.18	A 1 C10 - D31	E41	E45 E33 - - E28 F20 C 9
N4365	15	343	-	Mar. 8	Mar. 8	A 1		
N4366	11-12	326-327	Mar.11	Mar.10	Mar.11	A 3	A 2	
N4367	17	321	Mar.11	Mar.11	Mar.12		A 1	A 1
N4368	13-16	259-266	Mar.16	Mar.16	Mar.20		D 7	C 9 C 8 D15 D 8
N4369	18	237	-	Mar.16	Mar.16	A 1		
N4370	5-10	205-214	Mar.20	Mar.16	Mar.24	H 5 D13 H15 C16	C21	- H23 D26 D18
N4371	10-14	187-194	Mar.21	Mar.16	Mar.23	D 4 C 3 C 3 J 2 B 8	-	B10 B 2
N4372	18-20	171-179	Mar.22	Mar.16	Mar.24	J 2 C 5 D 9 D 6 D 7 -	D 5	J 5 C 9
N4373	8	255	-	Mar.18	Mar.18			A 1
N4374	9-11	162-172	Mar.22	Mar.18	Mar.28	C 7 D 9 D 9 -	C 5	A 2 A 3 - - C 6 A 1
N4375	10-17	136-151	Mar.24	Mar.19	Mar.29	D 5 D 8 - G21 G23	G20	- - E42 E30 E24
N4376	18-20	130-131	Mar.26	Mar.20	Mar.27	J 2 - J 3 J 4 J 5 -	-	J 2
N4377	19-22	89-100	Mar.28	Mar.23	Apr. 3	J 2 C 3 - - D10	J 3	C 6 - - - J 2 A 1
N4378	15	169	-	Mar.27	Mar.27			A 1
N4379	9-10	91-93	Mar.29	Mar.28	Mar.29	A 2	A 1	
N4380	15	38-46	Apr. 1	Mar.28	Apr. 3	B 3 C 5 - -	-	C 7 B 5
N4381	23-26	18-26	Apr. 3	Mar.28	Apr. 3	B 2 D10 - - - D10	D11	
N4382	13-14	57-58	-	Mar.29	Mar.29	J 3		
N4383	16	18	-	Mar.29	Mar.29	A 1		
N4384	3	19-22	Apr. 3	Mar.29	Apr. 3	A 2 - - - J 2	B 3	
N4385	8	13	-	Mar.29	Apr. 2	A 1 - - - J 2		

S3614	2-8	354- 7	Mar. 8	Mar. 2	Mar.13	A 1	C 8	-	E24	G24	G23	E25	-	C16	D 8	C 7	H 4			
S3615	10	360	Mar. 8	Mar. 8	Mar. 8							A 1								
S3616	3-9	269-276	Mar.15	Mar.10	Mar.18		C 6	C 7	D13	C13	-	-	C17	D 7	A 1					
S3617	18-20	354-356	-	Mar.11	Mar.11										B 4					
S3618	14-15	327-328	-	Mar.12	Mar.12								A 2							
S3619	6	260	-	Mar.12	Mar.12			A 1												
S3620	20-22	259-265	Mar.16	Mar.12	Mar.16			C 4	D 7	-	-	D 4								
S3621	15-17	331-333	-	Mar.16	Mar.16														C 3	
S3622	14-16	281-286	-	Mar.16	Mar.18									D 8	D 5	A 1				
S3623	18-20	138-142	Mar.25	Mar.22	Mar.29				C 7	C 5	J 5	-	-	B 4	C 3	C 5				
S3624	27-28	130-133	Mar.25	Mar.22	Mar.27				J 4	C 5	J 6	-	-	A 1						
S3625	41-45	98-103	Mar.28	Mar.22	Apr. 3	A 1	A 2	J 3	-	-	C11	H11	H14	-	-	-	D14	D14		
S3626	13	111	Mar.27	Mar.27	Mar.27							A 2								
S3627	12-13	64-70	Mar.30	Mar.27	Apr. 3				D 5	D 5	D 4	-	-	-	J 2	J 2				
S3628	14-15	53-57	-	Mar.27	Mar.29			A 1	B 2	B 2										
S3629	4-5	12-13	Apr. 3	Mar.29	Apr. 3		J 2	-	-	-	J 2	J 2								

TABLE OF SUNSPOT GROUPS

APRIL 1981

Group NO.	Latitude	Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4386	11-14	15-24	Apr. 3	Apr. 2	Apr. 6	C18	C14	- - B 4
N4387	15-18	344-352	Apr. 5	Apr. 2	Apr.11	C 4 C 7 -	-	C 8 J 3 C 3 - - J 2
N4388	2- 6	329-338	Apr. 6	Apr. 2	Apr.12	C 4 D 4 - -	D14	D16 D25 - - E16 D 9
N4389	7-10	312-318	Apr. 8	Apr. 2	Apr.12	J 2 J 2 - - J 2 J 2	C 4	- - D17 D 7
N4390	5-10	296-311	Apr. 8	Apr. 3	Apr.14	A 1 - - E22 G22	E34	- - F39 E25 - G10
N4391	6-9	325-327	Apr. 7	Apr. 6	Apr.11	A 2	A 4	A 1 - - A 1
N4392	14-19	285-297	Apr. 9	Apr. 6	Apr.15	E22 E29 E40	-	- G30 E34 - D11 D10
N4393	17-20	280-282	Apr.10	Apr. 6	Apr.12	J 5 J 6 C 5 -	-	J 2 J 2
N4394	11	330	Apr. 7	Apr. 7	Apr. 8		A 1	A 1
N4395	15	328	Apr. 7	Apr. 7	Apr. 7		A 1	
N4396	3-7	314-322	Apr. 7	Apr. 7	Apr. 8		B 4	B11
N4397	9-12	313-315	-	Apr. 7	Apr. 7	B 2		
N4398	18	248	-	Apr. 8	Apr.12	J 2 - - J 2 J 2		
N4399	10-17	225-236	Apr.14	Apr. 8	Apr.20	J 6 - - E26 E29 -	E36	E31 - E33 D26 - D 7
N4400	14-16	301-306	-	Apr.11	Apr.12			J 2 D 4
N4401	12	240	Apr.13	Apr.11	Apr.14	J 2 J 2	-	J 2
N4402	6-11	216-222	Apr.15	Apr.11	Apr.21	D 9 C12 - D23	D19	- D17 D16 - E12 A 2
N4403	19	327	-	Apr.12	Apr.12			A 1
N4404	14-15	276-280	-	Apr.12	Apr.12			B 3
N4405	7	225	-	Apr.14	Apr.14	J 2		
N4406	20-23	173-179	Apr.18	Apr.14	Apr.23	D 4 D 7 - C 6	C 7	- D 7 C 4 J 2 A 1
N4407	10-16	144-152	Apr.20	Apr.14	Apr.27	A 1 H10 - D16 C17 -	D21	D31 H30 H31 H29 - H17 D 7
N4408	13	281	-	Apr.15	Apr.15			A 1
N4409	15-17	170-176	Apr.19	Apr.15	Apr.23	C 6 - D14 C 9	-	C 8 B 3 J 2 A 1
N4410	21-24	142-152	Apr.21	Apr.15	Apr.27	B 5 - D10 D13 - C12	C13	C13 C12 D 9 - J 3 J 2
N4411	12-15	203-210	-	Apr.17	Apr.21			D 6 D 5 - D 5 J 2
N4412	23-25	201-208	-	Apr.17	Apr.21			C 5 C 9 - C 3 J 2
N4413	9	168	-	Apr.17	Apr.17	A 1		
N4414	17	214-219	-	Apr.18	Apr.21			D 4 - C 4 A 1
N4415	26	182	Apr.18	Apr.18	Apr.18		A 1	
N4416	10-11	161-165	Apr.19	Apr.18	Apr.20	D 4	-	B 2
N4417	6-7	154-158	Apr.20	Apr.18	Apr.24	A 2 -	D 7	D 6 D 4 C 3 J 2

N4418	10-11	108-110	-	Apr.24	Apr.24													A 2				
N4419	12-16	28-34	Apr.29	Apr.24	May 5			D 8	-	D10	C11	C 4	C 7	J 4	J 3	J 3	J 2	J 2	J 2			
N4420	2-8	16-32	Apr.30	Apr.24	May 5	B 6	-	E21	E23	E28	C21		C25	C33	C 9	J 2	J 2	J 2				
N4421	15-16	92-97	-	Apr.26	Apr.27									C 4	B 3							
N4422	2	34	-	Apr.26	Apr.26					A 1												
N4423	11	66-69	Apr.27	Apr.27	Apr.28								B 2	A 1								
N4424	18-19	340-341	May 3	Apr.27	May 9	A 1	J 2	J 2	J 2	J 2	J 2	J 2	J 2	J 2	J 2	-	-	J 2	J 2			
N4425	3	344	May 3	Apr.28	May 3		A 1	A 1	A 1	A 1	..		A 1									
N4426	5	94-99	-	Apr.29	Apr.29													C 3				
N4427	21-25	24-28	Apr.30	Apr.29	May 2							C 3	J 2	B 3	C 4							
N4428	3-7	308-323	May 5	Apr.29	May 9	A 1	J 2	C 6	C14	D26	E24		D28	-	-	E37	C20					
N4429	11-16	309-320	May 5	Apr.30	May 11		D 5	D 8	D13	D15	C18		C25	-	-	C17	C 9	-	J 2			
N4430	3-4	305-308	-	Apr.30	May 4	J 2	J 3	J 4	D 5	C 3												
S3630	10-12	27-30	Apr. 2	Apr. 2	Apr. 3								C 3	A 2								
S3631	15-19	336-338	Apr. 6	Apr. 2	Apr. 8			B 3	B 2	-	-		B 3	..	A 5							
S3632	6-9	1-6	-	Apr. 3	Apr. 3							A 1										
S3633	8	275	-	Apr. 7	Apr. 8			A 1	A 1													
S3634	20	327	-	Apr. 8	Apr. 8									A 1								
S3635	5-8	216-222	Apr.15	Apr.11	Apr.20			C 3	C 4	-	C 4		J 3	-	J 2	J 2	-	A 1				
S3636	10-11	250-252	-	Apr.12	Apr.12						A 4											
S3637	4-5	232-233	Apr.14	Apr.14	Apr.14								J 3									
S3638	6-10	186-198	Apr.17	Apr.14	Apr.23				C11	D16	-		D26	D20	-	E28	D16	C 9	J 3			
S3639	10-13	139-148	Apr.21	Apr.15	Apr.27	J 2	-	J 2	J 4	-	D10		C 6	C 7	C 4	C 3	-	J 2	J 3			
S3640	25	204	-	Apr.17	Apr.17									A 1								
S3641	16	125	Apr.22	Apr.22	Apr.22								A 1									
S3642	15-16	96-98	-	Apr.23	Apr.23						A 2											
S3643	15	137	-	Apr.26	Apr.26													A 1				
S3644	41-42	73-74	Apr.26	Apr.26	Apr.26								A 2									
S3645	15-16	17-20	-	Apr.28	Apr.29					J 3	C 3											
S3646	8-9	330-337	May 4	Apr.30	May 9			D 4	D11	D10	D14		D12	C 9	-	-	J 2	A 1				

TABLE OF SUNSPOT GROUPS

May 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4431	9-11	358- 3	May 2	May 2	May 2		C 5	
N4432	8	303	-	May 2	May 4	A 1 A 3 J 2		
N4433	9-10	289-294	May 7	May 3	May 11	C 4 C 4 D 5 -	-	J 3 J 4 - D 4
N4434	14-15	289-290	May 7	May 3	May 11	A 1 J 2 J 4 -	-	J 4 J 2 - J 2
N4435	17	332	May 4	May 4	May 4		A 1	
N4436	6	329	May 4	May 4	May 4		A 2	
N4437	16-17	304-305	-	May 4	May 8	A 1 ..	-	- A 2
N4438	21	304	-	May 4	May 4	A 1		
N4439	11-13	234-239	May 11	May 5	May 14	A 1 - - D 4 C 4 -	J 2	- J 2 A 1
N4440	5-10	224-237	May 11	May 5	May 14	A 1 - - D23 D26 -	D52	- E33 D27
N4441	18	292	-	May 8	May 8			A 1
N4442	16-19	265-270	May 9	May 8	May 11	C 5	C 8	- B 3
N4443	8-12	204-213	May 13	May 8	May 19	A 1 C 4 - D12 -	D13	D13 - - - C 6 J 2
N4444	6-7	240-241	May 11	May 11	May 11		A 3	
N4445	12	218	-	May 11	May 11	A 1		
N4446	8-17	146-166	May 17	May 11	May 23	D11 - F33 F48 - -	-	F66 F56 F22 F16 G10 C 3
N4447	7	246-253	-	May 13	May 14			B 2 D 6
N4448	17	204-207	May 13	May 13	May 13		B 2	
N4449	5-8	154-160	May 17	May 13	May 22	B 2 A 1 - -	-	B 8 B 9 A 2 J 3 A 1
N4450	12-17	135-144	May 18	May 13	May 23	C 5 D13 - - -	C21	C17 C 8 J 4 J 2 J 2
N4451	21	134	May 19	May 19	May 19		A 1	
N4452	11	97	May 22	May 22	May 23		J 2	A 1
N4453	15-18	44-54	May 25	May 22	May 31	C 3 D10 -	D20	D21 D28 - D12 D 5 B 3
N4454	2- 5	19-29	May 27	May 22	Jun. 2	J 5 J 6 - C25 D33	D34	- D28 D24 E14 - G 4
N4455	11-12	12-16	May 28	May 22	May 29	A 1 C 4 - C 3 A 1 B 4	-	A 1
N4456	13	49	-	May 23	May 23	A 1		
N4457	2-5	35-37	May 26	May 26	May 27		A 3	B 5
N4458	10-13	310-316	Jun. 1	May 27	Jun. 6	J 2 - C 3 C 7 C10	-	D12 D13 - D 6 J 2
N4459	9-10	329-330	May 31	May 31	May 31		A 3	
N4460	4-5	317-320	Jun. 1	May 31	Jun. 2	D 4	-	J 2
N4461	22	272-274	-	May 31	May 31	A 2		

S3647	11-12	32-38	-	May 2	May 3												D 4	C 5
S3648	6	325	-	May 2	May 2						A 1							
S3649	12	290	-	May 2	May 5		J 2	A 1	A 1	A 1								
S3650	18-23	265-275	May 8	May 3	May 11		C 3	C 5	C 4	-	-	D18	D11	-	J 3			
S3651	18	283-285	-	May 8	May 8								A 2					
S3652	8	275	May 8	May 8	May 8							A 2						
S3653	6	230	-	May 8	May 8				A 1									
S3654	7-10	194-199	May 14	May 8	May 19	J 2	C 3	-	C 3	-	J 3	C 4	-	-	-	J 2	J 2	
S3655	22-23	252-254	-	May 11	May 13								A 4	-	J 2			
S3656	5-7	233-234	May 11	May 11	May 11							A 3						
S3657	30	205	May 13	May 13	May 14							A 1	A 1					
S3658	23-28	111-120	May 20	May 14	May 26	H 2	-	-	-	C11	C12	C13	H13	H14	H10	-	H 5	H 4
S3659	25-27	169-165	-	May 18	May 23									D 9	C 7	C 8	J 7	J 2 J 2
S3660	9-11	146-148	-	May 21	May 21										A 2			
S3661	30	109	May 21	May 21	May 21							A 1						
S3662	9	37	May 26	May 21	May 26		J 2	J 2	J 2	-	A 1	A 1						
S3663	12	42-46	May 26	May 22	May 27			A 1	A 1	-	..	C 5	J 4					
S3664	15	40	-	May 23	May 23				A 1									
S3665	10	29	-	May 25	May 25					A 1								
S3666	4-8	337-345	May 30	May 25	Jun. 5		H 3	C 5	D 7	-	D14	C10	C 8	-	C 3	J 2	-	J 3
S3667	26	338	-	May 27	May 27				A 1									
S3668	13-14	24-27	-	May 29	May 29									B 3				
S3669	14	43	-	May 30	May 31											J 2	A 1	
S3670	6-7	332-334	May 31	May 31	May 31							A 3						

TABLE OF SUNSPOT GROUPS

JUNE 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4462	13	324	-	Jun. 2	Jun. 2			A 1
N4463	10	251	-	Jun. 5	Jun. 5	A 2		
N4464	12	203	-	Jun. 5	Jun. 7	J 2 J 2 J 2		
N4465	6	223	-	Jun. 6	Jun. 6	A 1		
N4466	10-16	168-175	Jun.12	Jun. 6	Jun.16	J 2 D 4 - C 9 - C11	-	- - - A 3
N4467	10	241	Jun. 7	Jun. 7	Jun. 7		A 1	
N4468	24	275	-	Jun. 9	Jun. 9			A 1
N4469	10	237	-	Jun. 9	Jun. 9			A 1
N4470	11-14	157-163	Jun.13	Jun.11	Jun.18	A 1 -	-	- - D12 C10 B 2
N4471	5-8	96-103	Jun.18	Jun.16	Jun.24	C20 C14	D 7	B 9 - .. - A 2 A 1
N4472	17-18	160-168	-	Jun.18	Jun.19			D 4 J 2
N4473	17	81-84	Jun.19	Jun.19	Jun.19		B 2	
N4474	34	50	-	Jun.19	Jun.19	A 2		
N4475	8-15	351- 2	Jun.25	Jun.21	Jul. 1	D12 - D34 D40	-	E46 E58 - - E13 C 3
N4476	14-15	41-46	-	Jun.23	Jun.27			C 3 C 3 - C 3 B 3
N4477	24	323	-	Jun.24	Jun.24	A 1		
N4478	17-20	297-305	Jun.29	Jun.24	Jul. 5	D 6 - D 8 D10 -	-	C 7 J 2 - - - C 4
N4479	15-16	300-304	Jun.29	Jun.24	Jul. 1	J 2 - C 4 C 6 -	-	J 3 J 2
N4480	17-18	266-267	Jul. 2	Jun.27	Jui. 6	J 2 - - J 2 J 3	-	- - C 4 J 2
N4481	17	288-291	Jun.30	Jun.30	Jun.30		B 2	
S3671	4-5	331-332	-	Jun. 3	Jun. 3			A 2
S3672	11	228-229	-	Jun. 5	Jun. 5	A 2		
S3673	8-10	221-228	Jun. 8	Jun. 5	Jun. 9	D 7 D 9 D16	-	C 5
S3674	24-26	146-154	Jun.14	Jun. 9	Jun.19	A 1 - C 8 - -	-	- D10 C 9 D 8 D 8
S3675	22-23	124-131	Jun.15	Jun. 9	Jun.19	A 2 - J 6 - - -	-	C 6 J 4 J 2 A 1
S3676	24-26	106-114	Jun.17	Jun.11	Jun.23	D 6 - - - - D 8	D 8	D 6 D 6 - J 4 - J 2
S3677	29	109	-	Jun.16	Jun.16	A 1		
S3678	19-21	88-99	Jun.18	Jun.16	Jun.24	C24 D28	D22	G12 - E19 - C14 D 5
S3679	25-28	50-52	Jun.21	Jun.17	Jun.23	J 2 A 1 C 5 -	A 1	- A 1
S3680	17	353	-	Jun.21	Jun.23	A 1 - A 1		
S3681	9-10	338-340	-	Jun.21	Jun.26	A 1 - J 3 J 3 - B 3		
S3682	13-14	9-14	Jun.24	Jun.23	Jun.24	C 6	C 5	

S3683	7-12	330-334	Jun.27	Jun.23	Jul. 1			J 4	B 3	-	C 8	D 8	-	-	D 5	A 1				
S3684	12-21	269-289	Jul. 1	Jun.26	Jul. 8		F12	F37	-	-	F44	F42	-	-	-	F15	G 5	-	J 2	
S3685	20-21	8-9	-	Jun.30	Jun.30													J 2		
S3686	5-8	288-298	Jun.30	Jun.30	Jul. 6							D 7	D13	-	-	-	D 7	D 6		
S3687	15-17	262-265	-	Jun.30	Jul. 1					A 2	D 8									
S3688	4-6	258-264	-	Jun.30	Jul. 9			A 2	A 2	-		-	-	..	..	-	C 4	J 2		

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JULY 1991

Group NO.	Latitude	Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4482	8	246-248	-	Jui. 5	Jul. 5			A 3
N4483	18-20	116-119	Jui.13	Jul. 8	Jul.17	J 2 J 3 J 3 C 8 -	C 6	C 4 C 4 C 4 J 2
N4484	11-13	105-108	-	Jul.11	Jul.11	D 4		
N4485	20-22	170-176	-	Jul.13	Jul.15			D10 C 5 J 2
N4486	10-11	161	-	Jul.13	Jul.13			A 2
N4487	18-23	105-114	Jul.14	Jul.13	Jul.20	D16	D24	D20 D17 D10 - C 3 A 1
N4488	13	69	-	Jul.13	Jul.13	J 2		
N4489	4	115	Jul.14	Jul.14	Jul.14		A 1	
N4490	14-15	47-52	Jul.19	Jul.14	Jul.21	D 8 C 7 C 7 D 7 -	A 1	B 2 A 1
N4491	14	18	-	Jul.15	Jul.17	A 1 A 1 J 2		
N4492	4-6	69-75	Jul.17	Jul.16	Jul.22	A 1	C 8	- D10 D12 C 4 J 2
N4493	9-10	7-8	Jul.22	Jul.16	Jul.27	J 2 J 2 - J 3 J 3 J 3	J 3	J 3 J 2 J 3 J 2 A 1
N4494	17	68	Jul.17	Jul.17	Jul.17		A 1	
N4495	2-4	56-63	-	Jul.19	Jul.20			B 6 B 3
N4496	13-19	3-13	Jul.22	Jul.19	Jul.28	B 9 D25 D30	D39	D42 E38 E30 C20 D13 J 3
N4497	18-19	48-49	-	Jul.20	Jul.20			A 2
N4498	13	0	Jul.22	Jul.22	Jul.22		A 1	
N4499	0-1	355-357	Jul.23	Jul.23	Jul.23		A 2	
N4500	11	334	-	Jul.23	Jul.23	A 1		
N4501	10-12	324-326	Jul.25	Jul.24	Jul.25	A 3	A 2	
N4502	9-12	269-279	Jul.29	Jul.24	Aug. 3	A 1 J 2 C 3 D 7 C13	D14	- D21 G10 J 2 J 2
N4503	8	303-305	-	Jul.25	Jul.26	A 2 A 1		
N4504	22	301	Jul.27	Jul.26	Jul.29	A 2	A 1	A 1 A 1
N4505	6-7	338-340	-	Jul.27	Jul.27			A 2
N4506	12-20	210-220	Aug. 2	Jul.27	Aug. 6	J 2 C 3 C 5 - C22 D35	D31	D32 - D28 D18
N4507	9	254-255	-	Jul.28	Jul.29	A 1 A 2		
N4508	17-18	252-253	-	Jul.31	Jul.31			A 2
N4509	8	186	-	Jul.31	Aug. 1	A 1 A 1		
S3689	24	275-277	Jul. 1	Jul. 1	Jul. 1		A 2	
S3690	10-11	279-283	-	Jul. 5	Jul. 5			B 5

S3691	25-27	222-226	Jul. 5	Jul. 5	Jul.10												D 5	A 1	-	..	..	C 4		
S3692	3-5	213-217	Jul. 6	Jul. 5	Jul. 6										C 3		A 2							
S3693	17	258	-	Jul. 6	Jul. 6															A 1				
S3694	22	208	-	Jul. 8	Jul. 8													A 1						
S3695	8	192-196	Jul. 8	Jul. 8	Jul. 8												B 2							
S3696	10-11	127-132	-	Jul. 8	Jul.11		B 3	B 5	D 5	C 3														
S3697	25-30	96-103	Jul.15	Jul. 9	Jul.21	D 5	C12	H12	-	H16	H19	H21	H13	H17	-	H12	J 5	J 2						
S3698	6-12	90-111	Jul.15	Jul. 9	Jul.21	C 8	E18	E24	-	E28	C23	C29	C47	F54	-	F44	F31	C 4						
S3699	6-8	170-175	-	Jul.10	Jul.14								A 2	C 5	-	J 2	J 2							
S3700	9-11	45-53	Jul.19	Jul.13	Jul.21	J 2	D 6	C 9	C 6	C 8	-	J 2	B 6	A 1										
S3701	5	103	Jul.14	Jul.14	Jul.14							A 1												
S3702	17	104	-	Jul.15	Jul.16								A 1	A 1										
S3703	19	37	Jul.19	Jul.15	Jul.19			A 1	J 2	J 3	-	A 1												
S3704	15	44-47	-	Jul.16	Jul.17				A 1	B 3														
S3705	12	58-60	-	Jul.19	Jul.19								A 2											
S3706	5-11	333-342	Jul.24	Jul.19	Jul.29		E17	E17	H18	H17	H21	H24	H20	H25	H15	H14	H 9							
S3707	17-22	335-343	Jul.24	Jul.20	Jul.29			A 1	..	..	B 7	B10	C11	D18	D13	D 7	C 4							
S3708	9	331	-	Jul.20	Jul.22		A 1	A 1	A 1															
S3709	18-21	318-327	Jul.25	Jul.22	Jul.29				A 1	B 6	B 5	C13	D16	C 7	J 2	A 1								
S3710	7-17	276-296	Jul.28	Jul.22	Aug. 3	E20	F35	F50	F58	F79	F82	F76	F81	-	F54	F30	F16	F10						
S3711	18-20	281-283	Jul.28	Jul.22	Aug. 3	J 2	J 2	J 2	J 2	J 2	J 2	J 2	J 2	-	J 2	J 2	J 2	J 2						
S3712	1-4	266-274	Jul.29	Jul.23	Aug. 3	J 2	J 2	J 3	C 5	J 4	C 5	C 3	-	J 3	J 2	J 2	J 2							
S3713	16	355-357	-	Jul.24	Jul.25								A 2	A 1										
S3714	8	324	-	Jul.26	Jul.26								A 1											
S3715	5-8	247-253	Jul.31	Jul.26	Aug. 2		C 7	D10	C 9	C10	-	C 6	C 4	A 1										
S3716	13	355	-	Jul.27	Jul.28											J 2	A 1							
S3717	6	310-314	-	Jul.31	Jul.31												B 2							
S3718	7-8	296-299	-	Jul.31	Aug. 2											D 5	C 4	A 1						
S3719	18-19	254-256	-	Jul.31	Jul.31								A 2											

TABLE OF SUNSPOT GROUPS (Aug. 1981)

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4510	21-23	237-247	-	Aug. 2	Aug. 6			B 4 D11 - D 8 D 7
N4511	8-10	124-126	Aug. 9	Aug. 3	Aug.15	J 2 - J 3 J 3 - -	J 2	J 2 - J 2 J 2 - J 2
N4512	13-14	152-158	-	Aug. 9	Aug.10			C 6 C 8
N4513	23-25	85-91	Aug.12	Aug. 9	Aug.16	D 5 D 6 -	D 5	C 8 - J 3 B 3
N4514	11	73	Aug.13	Aug.13	Aug.13		A 1	
N4515	15	4	-	Aug.16	Aug.17	J 2 A 1		
N4516	13	18	Aug.17	Aug.17	Aug.17		A 1	
N4517	8-11	41-48	-	Aug.19	Aug.20			C 8 C 6
N4518	8-12	305-310	Aug.23	Aug.20	Aug.25	C10 - -	B 5	C14 B 2
N4519	6	9	-	Aug.23	Aug.23			A 1
N4520	10-12	269-280	Aug.25	Aug.23	Aug.30	D 9 D11	C15	- - - - G 5
N4521	18-22	242-249	Aug.27	Aug.23	Sep. 1	D10 D12 C14 -	-	- - C 4 J 3 A 1
N4522	12-16	219-230	Aug.28	Aug.23	Sep. 2	D 6 D10 G12 - -	-	- C19 C20 C11 D13
N4523	15-19	213-221	Aug.29	Aug.23	Sep. 1	A 2 C 5 C10 - - -	-	C19 C11 B 4
N4524	13-19	198-208	Aug.30	Aug.24	Sep. 6	J 4 C 8 - - - -	C15	C25 D16 D 6 - - J 2 J 2
N4525	25	213	Aug.30	Aug.30	Aug.30		A 2	
N4526	13-15	154-166	Sep. 2	Aug.30	Sep. 8	C 9 D13 C16	C 7	- - J 2 J 2 A 1 A 1
N4527	18	156	-	Aug.30	Aug.31	A 1 A 1		
N4528	10-11	124-130	Sep. 5	Aug.30	Sep. 9	J 2 J 2 J 2 J 2 - -	J 2	J 2 J 3 C 5 J 2
N4529	19	225-228	-	Aug.31	Sep. 1			A 2 B 3
N4530	4-7	128-136	Sep. 5	Aug.31	Sep. 9	D 4 D 8 C 7 - -	C 5	C 6 C 4 J 3 J 2
S3720	8-10	233-245	-	Aug. 3	Aug. 6			C 6 - E 8 C 5
S3721	8-14	108-127	Aug. 9	Aug. 5	Aug.16	F29 F33 - -	F73	F70 - F50 F38 - G14 J 2
S3722	23-25	139-148	Aug. 8	Aug. 5	Aug.13	B 3 A 2 -	-	D11 B 8 - C 5 C 8
S3723	25	136	-	Aug. 9	Aug. 9			A 1
S3724	12-13	86-87	Aug.12	Aug. 9	Aug.15	J 2 J 2 -	J 2	J 2 - A 1
S3725	6	100	-	Aug.10	Aug.10	A 1		
S3726	4-7	116-121	-	Aug.12	Aug.15			C 4 C 6 - A 3
S3727	13-18	358- 14	Aug.18	Aug.12	Aug.25	H 3 F14 - F27 F26 F31	F45	F40 F45 - - G 9 G 5 A 1
S3728	18-22	107-116	-	Aug.13	Aug.16			C 3 - B 6 A 1
S3729	19-20	20-25	Aug.17	Aug.13	Aug.17	A 1 - C 6 B 4	B 4	
S3730	24-25	85-86	-	Aug.15	Aug.15			A 2
S3731	19	57	-	Aug.15	Aug.15			A

S3732	4-10	339-343	Aug.20	Aug.15	Aug.23			D 7	D10	D11	D11	C16	C20	-	-	A 1							
S3733	1-3	321-326	Aug.21	Aug.15	Aug.25	J 2	J 2	J 2	J 2	J 3	C 3	C 4	-	-	J 3	J 2	J 2						
S3734	25	91	-	Aug.16	Aug.16												A 1						
S3735	15-14	32-34	Aug.16	Aug.16	Aug.16								A 2										
S3736	15-18	316-329	Aug.21	Aug.16	Aug.25			D 4	D 5	D 9	G12	G17	-	-	C10	D11	C 7						
S3737	11	54	-	Aug.17	Aug.17											J 2							
S3738	1	352-355	-	Aug.17	Aug.24						A 1	..	..	..	-	-	..	C 3					
S3739	5-7	326-333	-	Aug.17	Aug.24				B 2	D 7	D 5	D 8	-	-	..	A 1							
S3740	6-9	316-322	Aug.22	Aug.17	Aug.23		A 1	B 3	C 6	C 5		-	-	A 1									
S3741	10	3	Aug.18	Aug.18	Aug.19								A 1	A 2									
S3742	5-15	277-294	Aug.24	Aug.18	Aug.31	D 7	E14	F19	-	-		F32	C15	C19	-	-	-	-	E12	A 1			
S3743	11-16	337-341	Aug.20	Aug.19	Aug.20							A 1	B 6										
S3744	13	57	-	Aug.20	Aug.20															A 1			
S3745	16	291-294	Aug.24	Aug.20	Aug.25			A 1	-	-	..		A 1	C 4									
S3746	1-3	293-297	Aug.23	Aug.23	Aug.24								B 6	B 5									
S3747	16-17	286-288	Aug.24	Aug.23	Aug.25							A 2	A 3	A 1									
S3748	21	279	-	Aug.23	Aug.23						A 1												
S3749	7-11	259-271	Aug.26	Aug.23	Aug.31					E14	G10	G10	-	-	-	-	J 3	J 2					
S3750	3-6	248-251	-	Aug.23	Aug.25			B 3	B 3	B 3													
S3751	22	242	-	Aug.23	Aug.23		A 1																
S3752	7	280	-	Aug.24	Aug.24							A 1											
S3753	5-8	249-251	-	Aug.30	Sep. 1											A 1	C 3	C 4					
S3754	6-8	238-242	-	Aug.30	Aug.31										A 2	B 4							
S3755	10-13	215-220	-	Aug.30	Sep. 2									B 2	A 1	..	C 6						
S3756	21	193	-	Aug.30	Aug.30							A 1											
S3757	9-10	190-193	Aug.31	Aug.30	Sep. 2							J 3	C 4	J 2	J 2								
S3758	10-15	170-185	Sep. 1	Aug.30	Sep. 7						E27	E34	E48	G28	-	-	G16	E17	E10				
S3759	7	156	-	Aug.30	Sep. 1				J 2	J 2	A 2												
S3760	24-25	146-147	Sep. 4	Aug.30	Sep. 8			J 2	J 2	J 2	J 2	-	-	J 2	J 2	A 1	A 1						
S3761	7-13	126-136	Sep. 5	Aug.30	Sep. 9	J 4	J 5	C 7	C 8		-	-	C21	C25	H25	H27	D11						
S3762	15	167	-	Aug.31	Aug.31						A 1												
S3763	14-17	118-123	Sep. 6	Aug.31	Sep. 9	J 2	J 2	J 3	-	-		H 8	H10	H10	H 7	J 4							

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SEPTEMBER 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M	W-Side
N4531	16-18	137-140	-	Sep. 1	Sep. 2	B 4 B 2		
N4532	25-29	83-93	Sep. 8	Sep. 5	Sep.13	B 3 D12 D15	D17	D13 - - - A 2
N4533	5-12	50-68	Sep.10	Sep. 5	Sep.16	D14 E23 F38 F57 F49	-	- - F49 C35 C22 C15
N4534	14-15	52-54	Sep.11	Sep. 5	Sep.15	J 2 J 2 J 2 J 2 J 2 -	-	- J 3 J 3 J 2
N4535	12-13	114-117	Sep. 6	Sep. 6	Sep. 6		B 2	
N4536	16-18	89-93	Sep. 8	Sep. 7	Sep. 9	C 5	C 3	C 3
N4537	17-19	70-77	Sep. 9	Sep. 7	Sep. 9	D 5 D 5	J 2	
N4538	17-21	333-341	Sep.16	Sep.13	Sep.23	D12 D23 D17	D14	D11 C 9 - - E10 G 4 G 4
N4539	18	94	-	Sep.14	Sep.14			A 1
N4540	12-16	336-346	Sep.16	Sep.14	Sep.23	D16 D17	D18	D18 D17 - - G 7 E 9 J 2
N4541	9-12	290-292	Sep.20	Sep.14	Sep.24	J 2 J 2 J 2 J 2 J 2 -	-	J 2 J 2 J 2 C 3
N4542	8-11	266-273	Sep.21	Sep.16	Sep.26	J 3 C 5 C 5 - -	C13	D13 B10 B 2 - A 1
N4543	20	352	-	Sep.17	Sep.17			A 1
N4544	8-11	254-262	Sep.22	Sep.17	Sep.28	J 4 C 7 - - D17	C16	C11 D17 - B 6 A 4 C 5
N4545	18	320-325	Sep.18	Sep.18	Sep.24		A 4	- - C 6 J 3 A 1 A 1
N4546	12-13	304-309	Sep.19	Sep.18	Sep.24	B 3	-	- .. A 3 B 2 A 1
N4547	22	246-251	Sep.23	Sep.21	Sep.24	B 2 ..	A 5	A 2
N4548	15-16	202-203	-	Sep.21	Sep.26	A 1 A 2 .. A 3 - A 1		
N4549	19-20	227-229	-	Sep.22	Sep.22	A 2		
N4550	16	252	Sep.23	Sep.23	Sep.24		A 2	A 1
N4551	15	232	-	Sep.23	Sep.23	A 1		
N4552	14-16	211-214	Sep.26	Sep.24	Sep.27	A 1 -	D 9	C 4
N4553	5-11	183-193	Sep.28	Sep.26	Oct. 2	D 6 D19	D36	D25 D17 - G 9
N4554	6-9	152-159	Sep.30	Sep.26	Oct. 4	C 4 J 2 D13 C 9	C12	- C12 - J 4
N4555	3-5	149-153	Sep.30	Sep.26	Oct. 4	J 2 J 3 J 5 C 3	J 3	- J 2 - A 1
N4556	10	138	-	Sep.26	Sep.30	J 2 J 2 J 2 J 2 J 2		
N4557	22	223	-	Sep.27	Sep.27			A 1
N4558	13-16	128-135	Oct. 2	Sep.27	Oct. 4	A 1 B 3 C 8 D13 -	D14	- C 3
N4559	15-17	139-144	Oct. 1	Sep.28	Oct. 4	A 1 C 6 D 8	-	J 3 - J 2
N4560	12	140	-	Sep.29	Sep.29	A 1		
N4561	18	157	Sep.30	Sep.30	Sep.30		A 1	
S3764	18	110	Sep. 6	Sep. 2	Sep. 6	A 1 - - J 2	J 2	
S3765	14-17	118-123	Sep. 5	Sep. 5	Sep. 8		C 5	C 3 J 2 A 1

S3766	2	55-58	-	Sep. 6	Sep. 9		J 2	A 1	A 1	C 4								
S3767	7-8	41-48	-	Sep. 6	Sep. 9		C 3	C 4	C 6	J 4								
S3768	17-19	101-111	-	Sep. 8	Sep.13								A 3	..	-	-	-	C 4
S3769	13-14	55-58	-	Sep. 9	Sep. 9						D 4							
S3770	17-18	4-12	Sep.14	Sep.13	Sep.15						C 7	C 4	A 3					
S3771	16	322	-	Sep.13	Sep.16		J 2	J 2	J 2	A 2								
S3772	4-5	312-314	Sep.18	Sep.13	Sep.18		A 1	J 2	J 2	..	J 3	A 5						
S3773	9	20-21	-	Sep.14	Sep.14								A 4					
S3774	17-18	354-359	Sep.15	Sep.14	Sep.18						A 1	A 1	A 2	C 6	A 2			
S3775	15-17	308-316	-	Sep.15	Sep.17			B 3	A 2	A 1								
S3776	8-10	283-291	Sep.20	Sep.15	Sep.23		B 2	C 4	C 5	C 4	-	-	B 9	B 7	B 2			
S3777	17	31	-	Sep.16	Sep.16											A 1		
S3778	5-6	321-324	Sep.18	Sep.16	Sep.18					C 3	..	A 2						
S3779	5-10	245-255	Sep.23	Sep.17	Sep.29	C 3	D 7	-	-	D11	D 9	D13	C 5	-	J 2	J 2	C 3	J 2
S3780	5	301	-	Sep.18	Sep.18						A 1							
S3781	19	326	-	Sep.21	Sep.21											A 1		
S3782	15	305	-	Sep.21	Sep.21									A 1				
S3783	19-22	293-301	-	Sep.21	Sep.21									B 2				
S3784	13-14	277-278	Sep.21	Sep.21	Sep.22							A 1	A 2					
S3785	9	207	-	Sep.21	Sep.21		A 1											
S3786	9-10	190-197	Sep.27	Sep.22	Oct. 2		J 3	J 2	J 2	-	C 4	C 3	J 2	J 2	J-2	-	J 2	
S3787	13-14	184-185	Sep.28	Sep.22	Oct. 4	A 1	J 2	J 2	-	J 3	J 2	J 2	J 2	J 2	-	J 2	-	A 1
S3788	21-22	268-271	-	Sep.23	Sep.24								C 4	A 2				
S3789	8-9	225-232	Sep.25	Sep.24	Sep.30						A 2	-	D12	D14	C14	J 3	J 2	
S3790	5-8	182-191	Sep.28	Sep.24	Oct. 2			C 3	-	C12	C 8	C11	C12	B11	-	B 3		
S3791	13-15	164-173	Sep.29	Sep.24	Oct. 2		B 2	-	D 8	B 4	B 9	B 6	B 5	-	A 2			
S3792	6-7	233-235	-	Sep.27	Sep.28										A 2	A 2		
S3793	5-7	153-157	Sep.30	Sep.27	Oct. 6				A 1	C 4	A 3	D12	-	D 9	-	J 3	-	A 1
S3794	15-16	121-125	Oct. 3	Sep.27	Oct. 7	J 2	J 2	J 2	C 4	-	C 6	-	C 4	-	J 2	J 2		
S3795	10	183	Oct.28	Sep.28	Sep.28							A 1						
S3796	15-20	97-107	Oct. 4	Sep.28	Oct. 7	A 1	C 5	D 9	-	C11	-	B11	-	B 7	A 1			
S3797	9-12	139-146	-	Sep.30	Sep.30						B 4							

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OCTOBER 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4562	11-16	108-117	Oct. 4	Oct. 2	Oct.10	C18 -	C16	- D22 E22 - - J 4
N4563	7-10	63-71	Oct. 7	Oct. 2	Oct.12	C12 - C13 - C 9	C 9	- - J 2 J 2 J 2
N4564	9	111	-	Oct. 6	Oct. 6			A 1
N4565	6	93-100	-	Oct. 6	Oct. 6			B 5
N4566	18-20	67-73	Oct. 7	Oct. 6	Oct.12	C 3	A 1	- - C 5 A 1 A 1
N4567	11	48	-	Oct.10	Oct.10			A 1
N4568	23	330	-	Oct.10	Oct.10	A 1		
N4569	17-19	321-328	Oct.14	Oct.10	Oct.20	J 2 C 3 J 2 -	J 4	C 4 - J 2 J 3 C 5 J 2
N4570	17-18	11-18	Oct.11	Oct.11	Oct.17		C 3	D 8 - D15 D 9 - J 2
N4571	14-15	342-343	-	Oct.14	Oct.14			A 4
N4572	12-14	321-327	-	Oct.17	Oct.20			C 7 C 3 C 3 A 1
N4573	8	286	Oct.18	Oct.18	Oct.18		A 1	
N4574	16-19	243-249	Oct.21	Oct.18	Oct.26	A 2 B 3 C11	-	- J 3 C 5 D 7 D 4
N4575	4	199	-	Oct.19	Oct.20	A 1 A 1		
N4576	7-9	267-273	-	Oct.23	Oct.23			C 6
N4577	14-17	156-167	Oct.27	Oct.23	Nov. 1	D 8 C 7 C 4 C 7	C 6	C 9 - C 8 C 5 C 4
N4578	13-15	114-121	Oct.30	Oct.24	Nov. 1	A 2 J 2 J 3 J 3 C 8 -	J 4	C 6 J 3
N4579	13-14	133-139	-	Oct.26	Oct.31	A 1	-	C 6 J 2
N4580	7-9	103-106	Oct.31	Oct.26	Nov. 1	J 3 J 3 C 5 - J 6	C 7	A 2
N4581	15-18	74-84	Nov. 2	Oct.27	Nov. 7	J 2 C 6 - C10 C 9 C11	-	- - - - J 3
N4582	12	144	Oct.28	Oct.28	Oct.28		A 1	
N4583	10	134	-	Oct.30	Oct.31			A 1 A 1
N4584	9-12	119-124	Oct.30	Oct.30	Nov. 1		A 3	C 6 B 8
N4585	25-29	69-78	Nov. 3	Oct.30	Nov. 9	C 6 D 9 D10 -	-	- - - J 3 - J 2
N4586	19	30	Nov. 6	Oct.31	Nov. 7	A 1 J 2 - - - -	-	J 2
S3798	9-10	135-136	Oct. 2	Oct. 2	Oct. 2		A 4	
S3799	3-7	71-74	Oct. 6	Oct. 2	Oct.10	C 5 - C 8 -	C 8	B 5 - - B 2
S3800	15-16	135-144	-	Oct. 4	Oct. 7			B 4 - C 4 C 4
S3801	6-12	85-96	Oct. 5	Oct. 4	Oct.11	C12	-	E25 E31 - - D 5 B 2
S3802	23-26	96-97	-	Oct. 4	Oct. 4	A 2		
S3803	8-11	46-57	Oct. 8	Oct. 6	Oct.14	C14 D21	-	- E27 E17 D10 - J 2
S3804	15-18	352- 3	Oct.12	Oct.10	Oct.18	D15 D12	G11	- G12 G 9 - C 5 A 2

S3805	13-23	323-342	Oct.14	Oct.10	Oct.20			E16	F26	F46	-	F72	F69	-	F56	F39	F20 G 7
S3806	4	312	-	Oct.10	Oct.10	A 1											
S3807	18-22	312-322	Oct.15	Oct.11	Oct.20			B 2	B 5	-	J 3	D11	-	D18	D21	E26	E20
S3808	6	321	Oct.15	Oct.14	Oct.15						J 4	A 2					
S3809	10	317-318	-	Oct.14	Oct.14						A 2						
S3810	3-15	263-279	Oct.19	Oct.14	Oct.25		E40	F59	-	F68	F90	F85	F84	-	-	G29	G15 H 5
S3811	5-10	242-252	Oct.20	Oct.15	Oct.26		E15	-	E26	D37	D34	D29	-	-	D13	D11	D 9 D 4
S3812	20	300	Oct.17	Oct.17	Oct.17							A 1					
S3813	9-11	232-239	-	Oct.17	Oct.20			D 4	B 6	C 7	C 3						
S3814	16-17	316-320	-	Oct.18	Oct.20										A 2	B 3	B 3
S3815	6	313	-	Oct.18	Oct.19									A 1	A 1		
S3816	17-19	261-265	-	Oct.18	Oct.23						B 4	..	A 1	-	-	A 1	
S3817	9	284	-	Oct.19	Oct.19								A 1				
S3818	27-28	255-257	-	Oct.19	Oct.19						A 2						
S3819	5-6	203-210	Oct.24	Oct.20	Oct.30			A 1	-	-	B 4	A 1	C 6	D 9	J 5	C12	- J 2
S3820	24-28	179-189	Oct.25	Oct.23	Oct.31					C11	C 5	D 9	D15	C 6	D 6	-	J 2 J 2
S3821	29-30	163-167	-	Oct.23	Oct.26			C 4	J 4	C 4	A 1						
S3822	13	154	-	Oct.23	Oct.24		A 1	A 1									
S3823	4	199	Oct.24	Oct.24	Oct.24							A 1					
S3824	10	196	-	Oct.24	Oct.24						A 1						
S3825	8	194	Oct.25	Oct.25	Oct.25							A 2					
S3826	15	138	-	Oct.26	Oct.26				A 1								
S3827	11	139	-	Oct.27	Oct.27					A 1							
S3828	9	108	-	Oct.28	Oct.30				A 1	-	A 1						
S3829	19	127	Oct.30	Oct.30	Oct.30							A 1					
S3830	20-22	78-83	-	Oct.30	Nov. 1				B 3	B 5	B 5						
S3831	6-7	66-67	-	Oct.30	Nov. 1			J 2	J 2	J 2							
S3832	13	60	-	Oct.30	Nov. 1		A 1	A 1	A 2								
S3833	7-15	42-58	Nov. 4	Oct.30	Nov.10		H11	E34	F47	-	-	-	-	-	F72	-	C26 C15
S3834	10	111	Oct.31	Oct.31	Oct.31							A 2					

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NOVEMBER 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4587	7	135	-	Nov. 1	Nov. 1			A 1
N4588	11-13	101-106	Nov. 1	Nov. 1	Nov. 1		B 5	
N4589	12-13	35-38	-	Nov. 7	Nov. 7			B 4
N4590	0-3	320-330	Nov.11	Nov. 9	Nov.16	J 2 - C12 D15	D22	D20 C12 D16 C 6 C 4
N4591	13-20	318-327	Nov.11	Nov. 7	Nov.17	J 2 - C10 D16	D27	D35 D33 D28 D19 D17 D 6
N4592	14-16	314-318	-	Nov. 7	Nov.10	J 2 - C 3 B 4		
N4593	15-20	275-281	Nov.15	Nov. 9	Nov.20	J 2 J 2 J 2 J 3 C 5 C 5	C14	C 6 J 3 J 2 J 2 J 2
N4594	17	344	Nov.10	Nov.10	Nov.11		A 1	A 1
N4595	12-13	303-307	Nov.12	Nov.10	Nov.16	B 2 ..	C 3	D 7 C 5 J 3 J 2
N4596	22	325	-	Nov.12	Nov.12			A 1
N4597	15	311	Nov.12	Nov.12	Nov.12		A 1	
N4598	10-13	293-298	Nov.13	Nov.12	Nov.19	A 1	C 5	B 3 A 3 A 2 B 6 A 1 C 4
N4599	20-22	311-316	-	Nov.13	Nov.17			C 5 C 6 D 9 D 8 B 2
N4600	11-15	261-264	-	Nov.13	Nov.15	A 2 B 5 A 3		
N4601	3	243	-	Nov.18	Nov.18			A 1
N4602	10-14	198-201	Nov.20	Nov.18	Nov.24	A 1 B 8	D 6	H11 H10 J 4
N4603	9	128	-	Nov.21	Nov.21	A 1		
N4604	14-16	115-122	-	Nov.21	Nov.24	A 1 C 3 - J 2		
N4605	5	105	Nov.28	Nov.28	Nov.30		A 1	A 2 A 1
N4606	10-14	103-117	-	Nov.28	Dec. 3			D36 E36 E22 E23 - E 7
N4607	13-17	69-78	Nov.30	Nov.29	Dec. 6	B 4	D28	D24 - E16 E18 C 5 J 2
N4608	7	27	-	Nov.29	Nov.29	A 1		
N4609	17-20	356-4	Dec. 6	Nov.30	Dec. 18	J 3 D10 - D11 D 8 C 6	B 6	- A 1 .. B3 A2

S3835	3	95	Nov. 1	Nov. 1	Nov. 1									A 1						
S3836	3	102	-	Nov. 7	Nov. 7															A 1
S3837	3-5	5-7	Nov. 8	Nov. 7	Nov.14								J 3	-	J 3	J 2	J 3	J 2	J 2	J 2
S3838	12-17	354- 6	Nov. 8	Nov. 7	Nov.14								E29	-	C14	C 4	C 7	J 4	J 3	J 2
S3839	15-22	325-337	Nov.10	Nov. 7	Nov.16					D13	-		D20	C19	D31	C20	C24	C32	C21	C12
S3840	18-19	318-320	Nov.11	Nov. 7	Nov.13			J 2	-	J 2		J 2		A 3	A 1	A 3				
S3841	8-13	273-282	Nov.15	Nov. 9	Nov.17	A 1	A 1	A 1	B 5	C 4		-		-	-	A 1				
S3842	20	351	-	Nov.10	Nov.10										A 1					
S3843	15-16	338-341	Nov.10	Nov.10	Nov.10									B 2						
S3844	21	311	-	Nov.11	Nov.11								A 2							
S3845	14	273-274	-	Nov.11	Nov.11			A 3												
S3846	14	320	-	Nov.12	Nov.14										A 1	A 1	A 1			
S3847	2	3	-	Nov.13	Nov.13														A 1	
S3848	0-5	218-227	Nov.19	Nov.13	Nov.24	J 2	D 8	D14	D12	C12		C10		C15	C 7	J 4	J 3	-	J 2	
S3849	20	314-315	-	Nov.14	Nov.14											A 2				
S3850	17-19	265-269	Nov.15	Nov.15	Nov.15									B 2						
S3851	14-17	296-306	-	Nov.16	Nov.19												B 3	D 9	D 9	C 4
S3852	16-19	252-264	-	Nov.17	Nov.22										B 5	D16	D19	E16	E13	C 9
S3853	7-8	222-226	Nov.19	Nov.18	Nov.22								A 1	A 1	..	J 3	B 3			
S3854	16	190	-	Nov.18	Nov.18					A 1										
S3855	19	264	-	Nov.19	Nov.19												A 1			
S3856	4-7	209-214	-	Nov.19	Nov.19								B 7							
S3857	7	247-249	-	Nov.20	Nov.21												J 2	A 2		
S3858	17-18	213-217	-	Nov.24	Nov.24														B 2	
S3859	19-21	98-106	Nov.28	Nov.28	Dec. 1									C12	C13	C 5	J 2			
S3860	5-10	54-68	Dec. 1	Nov.28	Dec. 6					E44	E50		E45	E42	-	C20	C12	C 5	J 3	
S3861	12-15	49-58	Dec. 1	Nov.28	Dec. 6					D12	D 5		D 8	C 9	-	C 7	C 3	J 2	J 2	
S3862	13-14	35-41	Dec. 3	Nov.28	Dec. 5		C 5	C 5	C 5	J 3		-		A 3	..	A 2				
S3863	10-11	49-51	[illegible]	Nov.30	Dec. 1						A 2	A 2								

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DECEMBER 1981

Group NO.	Heliographic Latitude	Heliographic Longitude	C.M. Passage	First Obs.	Last Obs.	E-Side	C.M.	W-Side
N4610	12-13	51-55	-	Dec. 1	Dec. 1	C 4		
N4611	2- 7	349-356	Dec. 6	Dec. 1	Dec.12	C 4 - D11 D19 C15	C13	- C18 C15 D12 H 5 H 4
N4612	7- 8	341-344	-	Dec. 1	Dec. 6	A 1 - J 5 J 3 A 1 B 3		
N4613	2	338	-	Dec. 3	Dec. 6	J 2 J 2 A 1 A 2		
N4614	14-20	316-328	Dec. 8	Dec. 3	Dec.13	D10 D12 D17 D19 -	D25	E31 E28 E26 E25 E13
N4615	6-10	316-330	Dec. 8	Dec. 4	Dec.13	D 7 D11 E18 - E32	E36	F29 F22 G16 G15
N4616	10-14	303-310	Dec.10	Dec. 4	Dec.15	J 3 C 4 C 5 - C 4 J 2	J 2	J 2 J 2 J 2 - J 2
N4617	5- 8	299-308	Dec.10	Dec. 5	Dec.15	A 2 C 7 - D12 C13	C10	C 9 C 7 J 2 - J 3
N4618	9	298	Dec.10	Dec. 5	Dec.11	J 2 J 2 - J 2 A 1	A 1	A 2
N4619	9-12	282-290	Dec.11	Dec. 6	Dec.13	A 1 - D11 D11 D13	D12	D14 D 6
N4620	16-17	281-282	Dec.12	Dec. 6	Dec.17	J 2 - J 2 J 2 J 2 J 2	J 2	J 2 - J 2 J 2 J 2
N4621	6- 9	276-284	-	Dec. 9	Dec.11	A 3 B 7 A 3		
N4622	27	311	-	Dec.10	Dec.10			A 1
N4623	18-20	343-347	-	Dec.11	Dec.12			C 5 D 4
N4624	12	213	-	Dec.12	Dec.12	A 1		
N4625	10-11	196-203	Dec.18	Dec.13	Dec.22	C 5 - C 5 C 5 C 5	D 7	- J 2 J 2 A 1
N4626	7	237	Dec.15	Dec.15	Dec.15		A 1	
N4627	10	228	Dec.16	Dec.16	Dec.16		A 1	
N4628	6- 8	219-222	-	Dec.17	Dec.17			B 5
N4629	15	156	-	Dec.18	Dec.18	A 1		
N4630	10-12	109-116	Dec.24	Dec.18	Dec.30	A 1 - J 2 J 2 C 3 C 3	C 4	J 2 C 4 C 4 C 3 - J 2
N4631	8-10	118-125	-	Dec.21	Dec.23	A 2 A 1 C 5		
N4632	18-21	78-87	Dec.27	Dec.22	Dec.30	A 1 D 7 D 8 D14 D18	D18	D10 - A 3
N4633	13	44	-	Dec.28	Dec.28	A 1		
N4634	16-18	29-38	Dec.30	Dec.28	Jan. 3	D10 -	D11	- D 7 D 6 D 6
N4635	23-25	341-350	Jan. 3	Dec.28	Jan. 6	J 2 - D 7 - D12 D14	D16	- D 6 B 5
N4636	2- 5	0-6	Jan. 2	Dec.30	Jan. 2	C 3 - ..	B 4	
N4637	16	328	-	Dec.30	Dec.30	A 1		

S3864	19-20	6-11	Dec. 5	Dec. 1	Dec. 6			C 4	-	C 7	B 4	B 4	C 3					
S3865	3-4	10-11	Dec. 5	Dec. 1	Dec. 6			A 1	-	C 5	J 3	A 1	A 2					
S3866	16-17	91-92	-	Dec. 3	Dec. 3											A 2		
S3867	16-20	52-57	-	Dec. 3	Dec. 3									B 5				
S3868	30-34	320-325	Dec. 9	Dec. 3	Dec.11	A 1	A 1	A 1	A 2	-	..	D 6	D 6	C 4				
S3869	17-18	321-328	Dec. 8	Dec. 3	Dec.13		J 2	J 2	J 3	J 2	-	J 3	C 4	J 2	J 2	J 2	J 2	
S3870	18-23	311-318	Dec. 9	Dec. 3	Dec.13	J 3	J 3	H 5	C 8	-	C13	C 9	C 8	C 9	J 5	J 4		
S3871	14-15	304-308	Dec.10	Dec. 4	Dec.16	J 2	J 3	J 3	-	C 4	J 3	J 2	C 4	J 2	J 2	-	J 2	J 2
S3872	14-15	29-33	-	Dec. 6	Dec. 9										B 3	-	B 3	A 2
S3873	13-18	270-277	Dec.12	Dec. 6	Dec.18	J 2	-	C 9	D 5	D14	D16	H24	H18	-	H10	H11	H 7	H 7
S3874	20-21	260-266	Dec.13	Dec. 8	Dec.15		C 3	C 3	J 2	C 3	C 4	C 3	-	J 2				
S3875	5-10	253-259	Dec.13	Dec. 8	Dec.18		H 6	D11	D15	D13	D16	C12	-	J 5	J 4	J 2	J 3	
S3876	20	303	Dec.10	Dec.10	Dec.10							A 1						
S3877	6-10	280-291	Dec.11	Dec.10	Dec.17					D10	D19	D19	E23	-	E16	E14	B 5	
S3878	11	281	-	Dec.10	Dec.10					A 1								
S3879	20	299	-	Dec.11	Dec.11								A 1					
S3880	9-10	238-242	-	Dec.17	Dec.18									B 4	C 4			
S3881	9-11	179-188	Dec.19	Dec.18	Dec.23						D 8	-	C 6	C 7	D 5	J 2		
S3882	13-14	198-201	-	Dec.20	Dec.22									C 4	A 3	A 1		
S3883	23-25	74-79	Dec.27	Dec.21	Jan. 2	J 2	C 3	D 4	C 3	J 3	C 6	C 6	C10	-	C 9	-	C 5	J 3
S3884	23-25	101-108	Dec.25	Dec.22	Dec.27				C 5	D 9	D 5	J 4	A 2	A 2				
S3885	9	70	-	Dec.22	Dec.26	J 2	J 2	J 2	J 2	A 1								
S3886	21-25	93-99	Dec.26	Dec.26	Jan. 1							A 1	D 5	D10	-	D 8	-	A 1
S3887	19-21	61-67	Dec.28	Dec.26	Dec.30					B 6	C 9	B11	-	C 4				
S3888	10	40-41	-	Dec.26	Dec.27			A 1	A 2									
S3889	9	80	Dec.27	Dec.27	Dec.27							A 1						
S3890	10-12	18-24	Dec.31	Dec.27	Jan. 2			D 5	C 5	-	J 3	-	C 3	A 2				
S3891	11	67	Dec.28	Dec.28	Dec.28							A 1						
S3892	11	56-57	Dec.29	Dec.28	Dec.30						A 1	-	A 2					
S3893	15	56	-	Dec.28	Dec.28						A 1							
S3894	13	35	-	Dec.28	Dec.28					A 1								
S3895	18-21	77-79	-	Dec.30	Jan. 2										D 6	-	C 4	A 1