POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by the Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day under Mount Wilson group number, longitude, latitude, area of spot or group, and spot count, are included respectively: number of groups, assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups, and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	h m		°	°	°	°				
July 1	10 35	8677	−59	334	+20	61	48	1	F	U. S. Naval.
		8685	−52	341	+13	53	48	5		
		8680	−43	350	−33	54	48	4		
		8675	−37	356	−27	47	121	9		
		8675	−33	0	−30	46	242	5		
		8674	−34	359	+20	36	12	1		
		8671	−25	8	+17	28	12	4		
		(*)	−19	14	−13	24	24	4		
		8668	−12	21	+15	16	97	8		
		8668	−4	29	+14	12	291	12		
		8683	−6	27	−41	44	12	1		
		8666	+11	44	−23	28	24	6		
		8679	+12	45	−16	21	24	4		
		8670	+21	54	+11	22	24	3		
		8672	+27	60	−19	34	36	5		
		8681	+37	70	−12	40	12	2		
		8673	+48	81	+30	52	36	2		
		(15)		(33)	(+3)		1,111	76		
2	11 8	8689	−80	299	+15	80	194	2	F	Do.
		8677	−46	333	+20	48	73	3		
		8685	−38	341	+13	39	24	4		
		8675	−35	344	−29	47	12	1		
		8675	−23	356	−28	38	121	7		
		8675	−19	0	−30	38	291	1		
		8680	−30	349	−33	46	61	6		
		8674	−20	359	+20	26	12	1		
		8684	0	19	−15	17	12	2		
		8668	+2	21	+15	13	73	4		
		8668	+10	29	+14	15	291	17		
		8687	+5	24	+28	26	12	1		
		8683	+8	27	−41	44	12	1		
		8670	+35	54	+12	36	48	6		
		8673	+61	80	+29	64	12	2		
		(12)		(19)	(+3)		1,248	58		
3	10 21	8691	−77	289	+20	77	97	2	G	Do.
		8689	−70	296	+16	70	145	11		
		8677	−33	333	+21	36	73	7		
		8680	−19	347	−33	40	24	5		
		8675	−10	356	−27	32	48	4		
		8675	−7	359	−30	33	206	1		
		8674	−8	358	+19	18	6	1		
		8688	−7	359	+8	9	24	4		
		8671	+3	9	+15	13	6	1		
		8668	+16	22	+15	20	61	6		
		8668	+23	29	+14	25	194	20		
		8683	+20	26	−42	48	73	7		
		(*)	+31	37	+9	32	12	3		
		8670	+51	57	+12	52	6	1		
		8670	+56	62	+13	57	12	1		
		(12)		(6)	(+3)		987	74		
4	8 55	8693	−78	276	−14	79	291	1	G	Mt. Wilson.
		8691	−66	288	+20	67	121	15		
		8689	−57	297	+17	58	170	20		
		8692	−28	326	−22	38	73	10		
		8677	−20	334	+20	26	73	9		
		8680	−5	349	−32	34	48	16		
		8675	0	354	−26	29	36	5		
		8675	+6	0	−23	26	24	3		
		8675	+6	0	−29	32	194	1		
		8674	+7	1	+21	19	12	1		
		8683	+29	23	−41	51	61	2		
		8683	+37	31	−39	54	24	7		
		8668	+29	23	+16	32	24	4		
		8668	+38	32	+16	39	242	20		
		8670	+65	59	+13	66	6	1		
		(11)		(354)	(+3)		1,399	115		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	h m		°	°	°	°				
July 5	8 53	8693	−71	270	−13	72	97	1	G	Mt. Wilson.
		8693	−71	270	−17	73	109	5		
		8693	−64	277	−13	66	339	1		
		8691	−52	289	+20	54	97	6		
		8689	−43	298	+17	45	121	13		
		(*)	−21	320	+20	27	12	3		
		8692	−16	325	−21	29	97	10		
		8677	−9	332	+19	18	48	15		
		8677	−7	334	+21	19	12	1		
		8680	+5	346	−33	35	48	7		
		8675	+11	352	−32	36	24	3		
		8675	+18	359	−30	38	194	1		
		8674	+14	355	+21	23	12	3		
		8683	+41	22	−42	59	24	3		
		8668	+50	31	+15	51	170	10		
		(11)		(341)	(+3)		1,404	82		
6	10 32	8695	−62	265	−11	64	12	2	F	U. S. Naval.
		8693	−58	269	−17	60	121	2		
		8693	−50	277	−14	53	388	1		
		8691	−38	289	+19	40	73	4		
		8689	−30	297	+16	32	73	12		
		8692	0	327	−22	23	97	7		
		8677	+4	331	+21	18	97	6		
		8677	+18	345	+23	27	24	10		
		8680	+19	346	−35	41	48	1		
		8675	+24	351	−32	42	36	5		
		8675	+30	357	−30	43	194	1		
		8674	+24	351	+19	29	12	3		
		8683	+58	25	−42	68	24	1		
		8668	+64	31	+14	65	145	3		
		(11)		(327)	(+3)		1,344	58		
7	8 51	8696	−73	241	+10	73	145	2	F	Mt. Wilson.
		8695	−48	266	−10	51	121	10		
		8693	−45	269	−13	47	48	12		
		8693	−42	272	−17	46	61	4		
		8693	−37	277	−13	41	339	1		
		8691	−24	290	+20	29	24	10		
		8689	−16	298	+16	20	97	24		
		8697	+11	325	+17	17	12	1		
		8692	+13	327	−21	28	97	9		
		8694	+31	345	−19	39	24	5		
		8680	+35	349	−32	48	48	23		
		8675	+43	357	−29	53	194	3		
		8683	+73	27	−41	80	24	1		
		8668	+77	31	+14	77	97	1		
		(12)		(314)	(+4)		1,331	106		
8	12 9	8700	−85	214	−31	85	388	1	F	U. S. Naval.
		8699	−80	219	+8	80	97	4		
		8698	−78	221	−13	79	48	3		
		8696	−59	240	+10	59	97	2		
		8695	−38	261	−11	41	48	4		
		8695	−31	268	−10	33	73	1		
		8693	−28	271	−17	35	97	5		
		8693	−23	276	−13	28	291	1		
		8691	−16	283	+19	22	12	2		
		8689	0	299	+16	12	73	6		
		8692	+30	329	−21	38	61	1		
		8694	+47	346	−19	51	48	2		
		8680	+52	351	−32	61	48	3		
		8675	+58	357	−29	64	145	1		
		(12)		(299)	(+4)		1,526	36		
9	10 47	8705	−83	204	+23	83	145	3	G	Do.
		8700	−72	215	−31	76	485	2		
		8698	−64	223	−13	66	48	1		
		8699	−63	224	+9	63	97	5		
		8696	−45	242	+11	45	97	6		
		8704	−30	257	−19	38	48	5		
		8695	−20	267	−11	25	145	8		
		8693	−15	272	−17	26	73	3		
		8693	−10	277	−13	20	291	1		
		8703	−10	277	+22	20	12	2		
		8689	+12	299	+18	19	97	9		
		8702	+24	311	−29	41	24	3		
		8692	+43	330	−21	49	24	4		
		8701	+47	334	+23	50	24	1		
		8694	+61	348	−20	65	36	3		
		8675	+69	356	−30	72	194	2		
		(15)		(287)	(+4)		1,840	58		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	*h m*		°	°	°	°				
July 10	11 21	8705	−85	188	+28	85	194	5	F	U. S. Naval
		8705	−71	202	+22	71	145	3		
		8700	−59	214	−31	66	533	2		
		8698	−50	223	−13	53	12	1		
		8699	−49	224	+9	49	145	4		
		(*)	−45	228	−23	51	12	1		
		8696	−32	241	+10	33	73	2		
		8704	−16	257	−19	28	12	3		
		8695	−7	266	−11	17	73	5		
		8693	−2	271	−17	21	61	3		
		8693	+3	276	−14	18	291	1		
		8689	+22	295	+17	25	12	1		
		8692	+57	330	−22	61	16	1		
		(11)		(273)	(+4)		1,579	32		
11	10 34	8707	−88	172	+13	88	582	1	F	Do.
		8706	−80	180	+10	80	24	1		
		8705	−69	191	+28	70	242	4		
		8705	−65	195	+26	66	48	2		
		8705	−57	203	+22	59	97	3		
		8700	−48	212	−31	58	533	1		
		8698	−37	223	−13	41	24	1		
		8699	−32	228	+9	33	61	4		
		8696	−19	241	+10	20	12	1		
		8695	+4	264	−11	15	24	3		
		8695	+10	270	−11	18	24	2		
		8693	+15	275	−20	28	12	2		
		8693	+17	277	−15	24	242	1		
		8702	+38	298	−27	47	12	2		
		8702	+47	307	−29	56	12	1		
		8692	+70	330	−21	73	24	1		
		(11)		(260)	(+4)		1,973	30		
12	10 28	8709	−87	160	+12	87	48	1	G	Do.
		8708	−78	169	−34	80	48	1		
		8707	−76	171	+12	76	970	2		
		8706	−67	180	+9	67	73	4		
		8705	−55	192	+28	57	242	8		
		8705	−50	197	+25	53	97	9		
		8705	−43	204	+22	45	145	11		
		8700	−34	213	−31	47	533	1		
		8698	−23	224	−13	28	12	1		
		8699	−18	229	+8	19	24	8		
		8696	−5	242	+9	7	16	1		
		8695	+19	266	−12	24	12	3		
		8695	+26	273	−11	30	6	1		
		8693	+29	276	−20	37	12	2		
		8693	+31	278	−13	34	242	1		
		(11)		(247)	(+4)		2,480	54		
13	10 43	8709	−74	160	+12	74	194	1	G	Do.
		8707	−61	173	+10	61	121	5		
		8707	−60	174	+12	60	824	1		
		8708	−61	173	−32	69	97	2		
		8706	−54	180	+11	55	24	6		
		8711	−48	186	−16	52	6	2		
		8705	−42	192	+29	47	315	5		
		8705	−36	198	+24	40	145	10		
		8705	−29	205	+22	34	121	12		
		8700	−33	201	−39	53	6	1		
		8700	−23	211	−31	42	533	2		
		8699	−10	224	+7	11	16	8		
		8699	−3	231	+7	5	48	12		
		8698	−9	225	−13	19	12	1		
		8696	+9	243	+9	10	12	3		
		8695	+34	268	−14	38	12	3		
		8693	+43	277	−13	46	242	1		
		8710	+53	287	+17	55	24	2		
		(13)		(284)	(+4)		2,752	75		
14	11 34	8715	−78	142	+9	78	242	9	G	Do.
		8713	−65	155	−20	68	12	1		
		8709	−60	160	+11	60	170	2		
		8712	−60	160	+19	60	6	1		
		8707	−49	171	+12	49	679	1		
		8707	−49	171	+10	49	48	6		
		8708	−47	173	−33	58	97	4		
		8706	−41	179	+11	42	121	13		
		8705	−30	190	+28	38	267	5		
		8705	−20	200	+22	26	242	24		
		8705	−15	205	+20	23	194	3		
		8700	−9	211	−31	36	533	4		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	*h m*		°	°	°	°				
July 14	11 34	8699	+8	228	+7	10	24	9		U. S. Naval
		8699	+14	234	+4	14	12	2		
		8696	+21	241	+10	22	12	1		
		8693	+58	278	−15	60	242	1		
		8710	+67	287	+20	67	24	4		
		(13)		(220)	(+4)		2,925	90		
15	13 52	8715	−64	142	+9	64	485	12	G	Do.
		8714	−56	150	−23	60	6	1		
		8713	−49	157	−20	53	6	1		
		8709	−46	160	+12	47	121	5		
		8708	−37	169	−34	51	24	6		
		8708	−30	176	−35	48	12	1		
		8707	−34	172	+12	36	727	1		
		8707	−34	172	+10	35	24	6		
		8706	−27	179	+10	28	291	17		
		8705	−15	191	+28	29	218	2		
		8705	−9	197	+23	21	24	8		
		8705	−3	203	+20	17	73	6		
		8705	+1	207	+19	15	121	1		
		8700	−2	204	−37	41	12	2		
		8700	+5	211	−33	36	461	2		
		8699	+24	230	+7	25	12	1		
		8716	+51	257	−8	53	6	1		
		8693	+73	279	−15	74	242	1		
		(12)		(206)	(+4)		2,865	74		
16	10 20	8720	−65	129	−5	66	36	15	G	Do.
		(*)	−59	135	−10	60	12	1		
		8715	−55	139	+11	56	436	14		
		8715	−48	146	+11	49	218	12		
		8714	−42	152	−23	49	12	3		
		8713	−34	160	−19	40	6	1		
		8709	−32	162	+12	33	73	5		
		8719	−24	170	+30	35	6	3		
		8708	−24	170	−34	43	12	3		
		8707	−19	175	+12	21	679	1		
		8706	−16	178	+11	17	533	17		
		8705	−3	191	+28	25	194	2		
		8705	+10	204	+20	19	194	9		
		8700	+16	210	−32	39	436	1		
		8717	+22	216	+17	26	12	3		
		8693	+87	281	−15	87	242	1		
		(14)		(194)	(+4)		3,101	81		
17	10 38	8721	−78	103	−21	78	12	3	G	Do.
		8720	−51	130	−4	52	24	2		
		8715	−41	140	+11	41	582	12		
		8715	−35	146	+11	36	436	11		
		8713	−22	159	−19	32	6	1		
		8709	−19	162	+13	21	73	4		
		8719	−15	166	+31	29	12	2		
		8719	−13	168	+29	27	24	2		
		8708	−9	172	−34	39	61	5		
		8707	−6	175	+13	8	776	4		
		8706	−3	178	+11	6	1,018	6		
		8705	+9	190	+28	26	242	3		
		8705	+11	192	+27	25	24	7		
		8705	+20	201	+21	25	12	2		
		8705	+24	205	+21	28	194	3		
		8700	+29	210	−32	46	436	1		
		8717	+36	217	+18	37	6	1		
		(12)		(181)	(+5)		3,938	69		
18	10 25	8726	−85	83	−12	85	194	1	G	Do.
		8721	−64	104	−21	68	36	3		
		8720	−36	132	−3	38	12	4		
		8715	−28	140	+11	29	630	15		
		8715	−21	147	+11	22	485	10		
		8709	−5	163	+9	5	24	2		
		8709	−5	163	+14	11	61	2		
		8725	+1	169	+20	15	48	5		
		8719	+3	171	+29	24	24	5		
		8708	+5	173	−36	41	73	4		
		8724	+7	175	−23	29	12	1		
		8707	+7	175	+13	11	679	2		
		8723	+11	179	+19	18	24	4		
		8706	+11	179	+11	13	1,261	8		
		8722	+13	181	−12	21	16	5		
		8705	+21	189	+29	31	121	4		
		8705	+38	206	+20	40	145	1		
		8700	+42	210	−32	54	485	1		
		(*)	+64	232	−11	66	24	3		
		(16)		(168)	(+5)		4,354	80		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	*h m*		°	°	°	°				
July 19	11 45	8726	−76	78	−13	77	242	3	G	U. S. Naval.
		8726	−68	86	−12	70	339	2		
		8721	−53	101	−21	57	48	5		
		8721	−50	104	−20	55	73	4		
		8715	−15	139	+12	16	630	22		
		8715	−7	147	+11	10	582	19		
		(*)	−9	145	+18	17	6	2		
		8709	+7	161	+13	11	97	4		
		8725	+13	167	+19	19	24	4		
		8708	+13	167	−34	41	73	2		
		8708	+20	174	−33	42	48	1		
		8707	+20	174	+14	22	679	2		
		8706	+24	178	+11	25	1,406	33		
		8723	+25	179	+18	28	24	3		
		8705	+35	189	+28	41	97	3		
		8705	+50	204	+20	52	48	1		
		8700	+54	208	−32	62	485	1		
		(12)		(154)	(+5)		4,901	111		
20	10 19	8731	−67	75	+11	67	6	1	F	Do.
		8726	−63	79	−14	65	242	4		
		8726	−57	85	−11	59	436	1		
		8721	−41	101	−23	49	267	14		
		8730	−37	105	−20	44	48	10		
		8729	−16	126	+13	18	6	1		
		8728	−11	131	−3	13	12	2		
		8715	−2	140	+12	7	388	3		
		8715	+5	147	+13	9	436	15		
		8706	+20	162	+13	22	48	2		
		8708	+26	168	−34	45	24	4		
		8708	+32	174	−32	48	12	1		
		8725	+27	169	+20	32	61	6		
		8707	+33	175	+12	34	679	1		
		8706	+37	179	+11	38	1,212	3		
		8723	+38	180	+17	40	6	1		
		8705	+48	190	+28	52	73	3		
		8705	+62	204	+21	62	48	1		
		8700	+67	209	−32	71	485	1		
		(15)		(142)	(+5)		4,489	74		
21	8 48	8732	−67	62	+23	68	24	4	VG	Mt. Wilson.
		8726	−57	72	−17	60	6	1		
		8726	−52	77	−14	55	218	3		
		8726	−44	85	−11	46	339	1		
		8721	−29	100	−23	40	242	8		
		8730	−24	105	−20	35	97	22		
		(*)	−9	120	−14	22	6	2		
		8729	−3	126	+12	7	12	3		
		8727	+1	130	+21	16	12	1		
		8715	+10	139	+13	13	388	18		
		8715	+17	146	+14	21	533	35		
		8713	+21	150	−22	33	12	2		
		8709	+32	161	+13	33	36	1		
		8725	+39	168	+21	41	24	4		
		8708	+45	174	−33	55	12	2		
		8707	+45	174	+13	46	679	1		
		8706	+50	179	+12	51	1,212	14		
		8705	+59	188	+28	60	61	8		
		8705	+75	204	+20	75	48	1		
		8700	+80	209	−31	81	485	1		
		(16)		(129)	(+5)		4,446	132		
22	11 36	8726	−37	77	−13	42	218	9	VG	U. S. Naval.
		8726	−30	84	−11	34	291	5		
		8721	−15	99	−23	32	194	15		
		8730	−8	106	−21	28	170	12		
		8727	+16	130	+20	22	6	1		
		8715	+24	138	+12	24	291	36		
		8715	+33	147	+14	35	485	16		
		8715	+34	148	+6	34	24	7		
		8715	+38	152	+13	39	145	1		
		8709	+47	161	+13	48	12	2		
		8725	+48	162	+21	50	12	5		
		8707	+60	174	+12	60	630	11		
		8706	+63	177	+11	63	1,067	6		
		8706	+67	181	+12	67	339	1		
		8706	+68	182	+10	68	291	4		
		8705	+73	187	+27	74	97	6		
		(10)		(114)	(+5)		4,272	137		
23	10 54	8732	−34	68	+20	37	12	3	VG	Do.
		8726	−23	79	−14	29	242	5		
		8726	−16	86	−11	22	291	10		
		8734	−18	84	+28	29	48	11		
		8721	−3	99	−24	28	73	10		
		8730	+3	105	−21	27	97	13		
		8729	+25	127	+12	27	6	1		
		8727	+26	128	+20	29	97	12		
		8715	+37	139	+12	38	242	12		
		8715	+46	148	+13	47	533	27		
		8715	+49	151	+8	49	48	1		
		8707	+74	176	+14	74	582	2		
		8706	+77	179	+13	77	1,067	9		
		8706	+80	182	+12	80	291	1		
		(10)		(102)	(+5)		3,629	117		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	*h m*		°	°	°	°				
July 24	10 32	8736	−82	7	+15	82	73	1	G	U. S. Naval.
		8735	−38	51	−19	45	12	6		
		8732	−21	68	+20	26	24	2		
		8726	−10	79	−15	22	242	4		
		8726	−3	86	−11	17	267	9		
		8734	−5	84	+29	25	61	6		
		8734	−1	88	+27	23	121	10		
		8721	+11	100	−24	32	48	5		
		8730	+17	106	−21	31	73	7		
		8727	+39	128	+20	41	73	3		
		8715	+50	139	+11	51	339	15		
		8715	+58	147	+12	58	776	18		
		8707	+88	177	+12	88	145	4		
		8706	+88	177	+10	88	97	1		
		(11)		(89)	(+5)		2,351	91		
25	10 15	8736	−69	6	+15	69	73	3	VG	Do.
		8738	−62	13	−10	64	48	2		
		8735	−22	53	−19	32	12	2		
		8732	−8	67	+22	18	73	12		
		8737	−7	68	−13	19	12	3		
		8726	+3	78	−15	20	218	4		
		8726	+11	86	−11	19	218	4		
		8734	+7	82	+30	26	61	1		
		8734	+13	88	+27	27	291	20		
		8721	+25	100	−24	38	24	6		
		8730	+30	105	−21	40	73	10		
		8727	+51	126	+20	53	61	10		
		8715	+65	140	+13	65	921	11		
		8715	+73	148	+13	73	630	1		
		(11)		(75)	(+5)		2,715	89		
26	11 46	8742	−70	351	−20	71	6	1	F	Do.
		8736	−56	5	+16	58	97	3		
		8741	−39	22	−26	48	24	1		
		8740	−19	42	+10	20	24	3		
		8739	−1	60	−16	21	24	1		
		8732	+7	68	+22	18	73	6		
		8737	+8	69	−13	21	24	3		
		8726	+16	77	−15	27	194	1		
		8726	+24	85	−12	29	218	4		
		8734	+20	81	+31	33	61	1		
		8734	+28	89	+27	36	461	13		
		8721	+39	100	−24	46	97	2		
		8730	+43	104	−22	50	73	2		
		8715	+79	140	+13	79	970	3		
		(12)		(61)	(+5)		2,346	44		
27	10 31	8742	−57	35	−21	61	24	1	F	Do.
		8742	−49	0	−20	54	73	10		
		8736	−42	7	+18	43	97	3		
		8741	−25	24	−24	38	12	3		
		8741	−21	28	−25	36	12	1		
		8740	−7	42	+11	10	6	1		
		8739	+12	61	−17	25	12	1		
		8732	+16	65	+23	23	36	1		
		8732	+19	68	+20	24	61	7		
		8737	+20	69	−14	27	12	1		
		8726	+29	78	−15	35	194	1		
		8726	+37	86	−12	41	206	1		
		8734	+32	81	+30	39	145	5		
		8734	+37	86	+27	42	121	9		
		8734	+41	90	+28	46	339	1		
		8730	+56	105	−22	60	97	5		
		(10)		(49)	(+5)		1,447	51		
28	12 33	8744	−71	323	+19	71	48	2	F	Do.
		8742	−42	352	−21	47	48	3		
		8743	−36	358	−21	44	145	12		
		8743	−30	4	−21	39	73	1		
		8736	−29	5	+17	32	61	2		
		8739	+27	61	−16	35	12	1		
		8732	+32	66	+21	35	48	4		
		8726	+42	76	−14	45	194	1		
		8726	+51	85	−12	53	194	1		
		8734	+45	79	+31	50	97	2		
		8734	+50	84	+28	54	145	5		
		8734	+54	88	+28	57	339	1		
		8730	+70	104	−23	73	48	1		
		(9)		(34)	(+5)		1,452	36		
29	10 26	8745	−69	313	−20	72	630	21	G	Do.
		8744	−59	323	+19	59	121	3		
		8742	−30	352	−20	40	12	2		
		8743	−22	0	−21	35	121	11		
		8743	−18	4	−21	33	97	1		
		8736	−16	6	+16	19	61	2		
		8732	+45	67	+19	47	6	1		
		8726	+56	78	−14	59	158	2		
		8726	+64	86	−12	65	194	1		
		8734	+56	78	+32	59	24	3		
		8734	+67	89	+28	69	291	2		
		(8)		(22)	(+6)		1,715	49		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JULY 1947—Continued

Date	Eastern standard time	Mount Wilson group group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1947	*h m*		°	°	°	°				
July 30	10 27	8745	−55	314	−19	61	1,600	18	G	U. S. Naval.
		8744	−46	323	+20	48	194	1		
		8748	−12	357	+18	17	12	3		
		8743	−9	0	−20	27	145	8		
		8743	−5	4	−20	27	170	8		
		8746	−8	1	+11	10	12	3		
		8736	−3	6	+17	12	61	2		
		8726	+69	78	−14	70	145	2		
		8726	+78	87	−13	79	194	1		
		8734	+80	89	+28	80	291	2		
		(8)		(9)	(+6)		2,824	48		
31	8 53	8749	−80	277	−9	80	242	3	F	Mt. Wilson.
		8750	−80	277	−14	80	97	1		
		8745	−50	307	−19	57	533	1		
		8745	−42	315	−18	48	1,067	24		
		8744	−34	323	+19	36	145	7		
		8743	+4	1	−19	25	97	12		
		8743	+8	5	−19	27	388	10		
		8748	+2	359	+20	14	24	4		
		8746	+5	2	+11	6	6	1		
		8736	+10	7	+17	15	36	2		
		(8)		(357)	(+6)		2,635	65		

Mean daily area for 31 days=2,496
Mean 10 g + s for 31 days=191.4

*Not numbered.
VG=very good; G=good; F=fair; P=poor.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR JULY 1947

[Dependent on observations at Zurich Observatory and its stations at Locarno and Arosa]

July 1947	Relative numbers	July 1947	Relative numbers	July 1947	Relative numbers
1	140	11	144	21	225
2	125	12	145	22	214
3	167	13	180	23	195
4	155	14	210	24	179
5	147	15	220	25	147
6	160	16	210	26	151
7	177	17	213	27	128
8	131	18	179	28	130
9	160	19	228	29	122
10	165	20	212	30	121
				31	146

Mean, 31 days=168.6

O