POSITIONS AND AREAS OF SUN SPOTS—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
1939	h m		°	°	°	°				
July 16	11 38	6541	−48	193	+20	50	582	4	F	U. S. Naval.
		6539	−30	211	+17	32	109	1		
		6535	−16	225	+17	20	873	14		
		6542	−7	234	+13	11	242	16		
		6538	+20	261	−10	25	12	4		
		6536	+67	308	+19	69	12	2		
				(241)	(+4)		1,830	41		
July 17	10 53	6541	−35	193	+20	37	630	11	G	Do.
		6539	−17	211	+17	20	97	1		
		6535	−3	225	+17	12	679	12		
		6542	+7	235	+14	12	339	15		
		6538	+32	260	−10	35	12	2		
				(228)	(+5)		1,757	41		
July 18	8 36	6541	−24	192	+20	28	727	25	VG	Mount Wilson.
		6539	−6	210	+17	14	145	12		
		6535	+10	226	+17	16	679	45		
		6542	+20	236	+15	23	582	42		
				(216)	(+5)		2,133	124		
July 19	10 46	6541	−10	191	+20	18	679	45	VG	U. S. Naval.
		6539	+8	209	+17	15	145	16		
		6544	+22	223	−13	29	24	7		
		6535	+24	225	+17	26	679	35		
		(*)	+31	232	+25	36	24	8		
		6542	+35	236	+13	36	776	45		
				(201)	(+5)		2,327	156		
July 20	8 43	6546	−81	108	−12	82	48	1	VG	Mount Wilson.
		6545	−41	148	−9	44	97	10		
		6541	+3	192	+20	16	727	40		
		6539	+21	210	+17	24	145	12		
		6544	+36	225	−13	40	36	5		
		6535	+37	226	+17	38	679	20		
		6542	+45	234	+13	46	776	30		
				(189)	(+5)		2,508	118		
July 21	15 34	6547	−73	99	+6	75	97	1	G	U. S. Naval.
		6546	−65	107	−14	68	36	1		
		6545	−24	148	−9	27	170	12		
		6541	+20	192	+19	25	679	35		
		6539	+39	211	+17	41	145	10		
		6535	+52	224	+17	53	485	9		
		6542	+66	238	+13	68	339	15		
				(172)	(+5)		1,951	83		
July 23	9 10	6547	−48	101	+7	48	97	8	F	Mount Wilson.
		6546	−39	110	−13	43	24	1		
		6545	+3	152	−8	13	436	28		
		6541	+44	193	+20	46	291	26		
		6539	+62	211	+17	64	73	10		
		6535	+78	227	+17	78	339	4		
		6542	+85	234	+13	85	48	2		
				(149)	(+5)		1,308	79		
July 24	10 35	6547	−35	100	+7	35	73	1	F	U. S. Naval.
		6546	−25	110	−14	31	12	4		
		6545	+15	150	−8	20	436	20		
		6541	+57	192	+19	59	97	11		
		6539	+70	205	+17	72	12	1		
		6548	+78	213	+4	79	6	1		
				(135)	(+5)		636	38		
July 25	11 48	6550	−61	60	−22	66	36	2	F	Do.
		6547	−20	101	+6	20	97	3		
		6546	−14	107	−16	25	6	1		
		6549	−7	114	−6	12	48	4		
		6545	+30	151	−9	33	679	19		
		6541	+70	191	+19	72	12	2		
				(121)	(+5)		878	31		
July 26	13 9	6550	−48	59	−22	54	36	6	VG	Do.
		6547	−7	100	+6	7	121	8		
		6549	+7	114	−5	11	36	3		
		6545	+44	151	−9	46	727	36		
				(107)	(+5)		920	53		
July 27	11 7	6550	−33	62	−22	42	24	1	VG	Do.
		6547	+8	103	+6	9	121	4		
		(*)	+21	116	+15	23	6	1		
		6549	+22	117	−5	24	61	3		
		6545	+56	151	−9	58	727	34		
				(95)	(+5)		939	43		
July 28	11 20	6553	−83	359	+8	83	776	1	G	U. S. Naval.
		6552	−19	63	−22	32	36	2		
		6550	−9	73	−24	29	73	7		
		6547	+23	105	+6	23	73	1		
		6549	+37	119	−5	38	48	4		
		6551	+43	125	−32	55	145	14		
		6545	+71	153	−9	73	824	20		
				(+82)	(+5)		1,975	49		
July 29	11 6	6553	−69	0	+8	71	630	1	VG	Do.
		6554	−24	45	−17	33	6	4		
		6550	−4	65	−23	29	36	6		
		6547	+37	106	+7	37	61	5		
		6549	+50	119	−4	51	36	6		
		6551	+56	125	−33	68	436	11		
		6545	+85	154	−9	86	533	4		
				(69)	(+6)		1,738	37		
July 30	9 15	6553	−57	0	+8	58	582	7	G	Mount Wilson.
		6554	−12	45	−17	25	12	2		
		6555	−5	52	−19	26	12	2		
		6552	+3	60	−20	26	12	2		
		6550	+15	72	−23	32	97	10		
		6547	+50	107	+7	50	48	1		
		6551	+63	120	−33	73	97	2		
		6549	+64	121	−3	65	24	1		
		6551	+73	130	−30	80	170	2		
				(57)	(+6)		1,054	29		
July 31	10 51	6557	−85	318	+14	85	339	3	G	U. S. Naval.
		6556	−67	336	−15	70	194	12		
		6553	−43	0	+8	43	582	4		
		6555	+14	57	−22	30	12	3		
		6552	+19	62	−19	31	48	8		
		6550	+29	72	−23	41	145	15		
		6547	+64	107	+6	64	48	1		
		6551	+77	120	−32	83	24	2		
		6549	+77	120	−3	78	6	1		
				(43)	(+6)		1,398	49		

Mean daily area for 30 days=2,189.

* Not numbered.

Plate quality: P, poor; F, fair; G, good; VG, very good.

PROVISIONAL SUNSPOT RELATIVE NUMBERS FOR JULY 1939

[Dependent alone on observations at Zurich]

[Data furnished through the courtesy of Prof. W. Brunner, Eidgen, Sternwarte, Zurich Switzerland]

July 1939	Relative numbers	July 1939	Relative numbers	July 1939	Relative numbers
1	103	11	*d* 131	21	106
2	*a* 97	12	118	22	--------
3	*dd* 112	13	101	23	*a* 80
4	*Ec* 128	14	*d* 97	24	67
5	130	15	*Mc* 87	25	62
6	122	16	--------	26	53
7	151	17	*ab* 85	27	*a* 51
8	*ab* 167	18	86	28	*Wcd* 58
9	*ab* 130	19	*a* 95	29	*Mc* 71
10	143	20	*Ebc* 113	30	68
				31	47

Mean, 29 days 98.6.

a=Passage of an average-sized group through the central meridian.
b=Passage of a large group through the central meridian.
c=New formation of a group developing into a middle-sized or large center of activity: *E*, on the eastern part of the sun's disk; *W*, on the western part; *M*, in the central circle zone.
d=Entrance of a large or average-sized center of activity on the east limb.