POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR DECEMBER 1945

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.) 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 longitude, latitude, area of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total areas 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
1945	*h m*		°	°	°	°				
Dec. 1	10 50	7904	−20	67	−14	24	145	9	F	U. S. Naval.
		7904	−15	72	−14	21	194	2		
		7907	+72	159	+27	73	48	1		
		7907	+80	167	+26	80	194	4		
				(87)	(+1)		581	16		
2	11 58	7904	−7	67	−15	17	170	7	F	Do.
		7904	−2	72	−15	16	242	2		
		7906	+27	101	−30	40	12	1		
		7906	+30	104	−30	42	16	2		
				(74)	(+1)		440	12		
3	15 59	7908	−71	347	−22	73	12	1	F	Mt. Wilson
		7904	+7	65	−15	17	24	7		
		7904	+12	70	−15	19	267	12		
		7904	+15	73	−15	22	206	1		
		7904	+17	75	−16	23	12	1		
				(58)	(+1)		521	22		
4	14 21	7908	−61	345	−21	63	24	4	VG	Do.
		7908	−58	348	−22	60	48	2		
		7904	+22	68	−16	27	170	20		
		7904	+22	68	−18	28	97	1		
		7904	+24	70	−14	28	12	1		
		7904	+26	72	−16	30	97	7		
		7904	+27	73	−17	32	194	1		
				(46)	(0)		642	36		
5	11 15	7908	−50	345	−21	53	36	3	G	Do.
		7908	−47	348	−22	51	48	2		
		7904	+33	68	−16	36	145	13		
		7904	+33	68	−18	37	73	1		
		7904	+37	72	−16	40	145	7		
		7904	+39	74	−17	42	121	2		
				(35)	(0)		568	28		
6	11 20	7908	−39	342	−21	43	24	2	G	Do.
		7908	−35	346	−22	40	12	1		
		7904	+47	68	−16	49	97	11		
		7904	+47	68	−18	50	73	9		
		7904	+51	72	−17	53	170	12		
				(21)	(0)		376	35		
7	11 47	7911	−78	290	−22	79	24	1	F	U. S. Naval.
		7910	−76	292	−17	77	194	2		
		7909	+37	45	−23	42	12	3		
		7904	+58	66	−18	60	6	2		
		7904	+63	71	−17	65	85	8		
				(8)	(0)		321	16		
8	10 50	7911	−65	290	−22	67	48	1	F	Do.
		7910	−65	290	−17	66	73	1		
		7910	−62	293	−17	63	109	1		
		7904	+76	71	−17	77	73	2		
				(355)	(0)		303	5		
9	11 18	7911	−52	290	−22	55	48	1	F	Do.
		7910	−52	290	−17	53	61	1		
		7910	−48	294	−17	51	85	1		
				(342)	(0)		194	3		
10	11 14	7911	−41	288	−21	45	6	1	F	Mt. Wilson.
		7911	−39	290	−19	43	16	1		
		7911	−38	291	−21	43	36	1		
		7910	−38	291	−17	42	36	1		
		7910	−35	294	−17	38	61	1		
		7912	+62	31	−14	63	6	2		
				(329)	(0)		161	7		
11	10 56	(*)	−32	284	−24	39	24	4	G	U. S. Naval
		7911	−27	289	−21	34	48	3		
		7910	−25	291	−17	30	24	1		
		7910	−23	293	−17	28	61	6		
				(316)	(0)		157	14		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR DECEMBER 1945—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
1945	*h m*		°	°	°	°				
Dec. 12	11 22	7916	−65	237	+24	69	6	2	G	U. S. Naval.
		7914	−56	246	+17	58	6	2		
		7914	−52	250	+16	54	6	1		
		7911	−13	289	−22	23	24	3		
		7911	−12	290	−21	23	6	1		
		7910	−9	293	−17	18	48	4		
		7913	+44	346	−26	50	12	2		
				(302)	(−1)		108	15		
13	10 53	7914	−42	247	+16	45	16	1	VG	Mt. Wilson.
		7914	−38	251	+15	41	24	4		
		7915	−5	284	+27	29	36	10		
		7915	−3	286	+27	28	24	5		
		7911	−2	287	−26	25	6	1		
		7911	−1	288	−23	22	16	2		
		7910	+3	292	−18	17	36	9		
		7910	+5	294	−17	16	24	1		
		7913	+56	345	−26	59	6	1		
				(289)	(−1)		188	34		
14	13 44	7917	−74	201	+31	77	218	1	F	U. S. Naval.
		7916	−37	238	+25	43	6	1		
		7914	−27	248	+17	33	24	1		
		7914	−21	254	+16	27	36	2		
		7915	+11	286	+29	36	48	2		
		7911	+14	289	−22	23	36	1		
		7915	+15	290	+27	32	24	3		
		7910	+19	294	−18	25	24	3		
		(*)	+36	311	+9	37	12	1		
				(275)	(−1)		428	15		
15	14 13	7917	−60	201	+30	65	170	1	F	Mt. Wilson.
		7916	−24	237	+24	34	6	1		
		7916	−20	241	+23	31	24	4		
		7914	−17	244	+16	23	6	1		
		7911	+27	288	−20	32	36	6		
		7910	+30	291	−17	33	12	2		
				(261)	(−1)		254	15		
16	11 6	7919	−80	170	+23	80	242	1	P	U. S. Naval.
		7917	−47	203	+31	55	145	1		
		7916	−10	240	+21	24	12	1		
		7918	−7	243	+28	30	24	1		
		7916	−6	244	+24	26	36	1		
				(250)	(−1)		459	5		
17	11 20	7919	−66	170	+23	68	291	1	P	Do.
		7917	−33	203	+32	45	121	1		
		7918	+6	242	+30	32	73	2		
		7916	+7	243	+23	24	48	1		
		7918	+8	244	+29	31	61	1		
				(236)	(−1)		594	6		
18	11 21	7919	−52	171	+22	56	218	1	F	Do.
		7917	−21	202	+32	39	97	1		
		7918	+19	242	+30	36	73	2		
		7918	+21	244	+29	35	61	2		
		7916	+21	244	+23	33	12	1		
				(223)	(−1)		461	7		
19	11 8	7919	−39	171	+21	43	194	1	G	Mt. Wilson.
		7917	−10	200	+30	32	97	1		
		7921	+43	253	−14	44	12	5		
		7920	+57	267	−22	59	12	4		
				(210)	(−1)		315	11		
20	10 57	(*)	−29	168	+25	39	12	6	F	U. S. Naval.
		7919	−26	171	+22	34	206	1		
		7917	+1	198	+33	35	12	3		
		7917	+4	201	+32	35	61	1		
				(197)	(−2)		291	11		
21	11 0	(*)	−15	169	+25	30	12	4	F	Do.
		7919	−13	171	+22	27	194	1		
		7917	+16	200	+30	36	61	1		
				(184)	(−2)		267	6		
23	10 43	7919	+13	171	+21	27	194	1	F	Do.
		7917	+42	200	+31	51	24	1		
				(158)	(−2)		218	2		
24	10 51	7922	−77	67	−17	77	291	1	G	Do.
		7919	+26	170	+21	34	194	1		
				(144)	(−2)		485	2		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR DECEMBER 1945—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
1945	*h*	*m*		°	°	°	°				
Dec. 26	14	26	7922	−55	61	−16	57	24	1	G	Mt. Wilson.
			7922	−48	68	−17	49	242	1		
			7919	+56	172	+21	60	194	1		
					(116)	(−2)		460	3		
27	11	8	7922	−37	68	−17	40	291	1	F	U. S. Naval.
			7919	+67	172	+20	70	218	2		
					(105)	(−2)		509	3		
28	14	40	7922	−22	68	−18	27	267	1	(†)	Mt. Wilson.
			7919	+82	172	+20	82	194	1		
					(90)	(−3)		461	2		
29	13	50	7922	−11	66	−17	18	48	1	G	U. S. Naval.
			7922	−10	67	−17	17	267	1		
					(77)	(−3)		315	2		
30	11	9	7923	−80	345	−15	80	24	1	VG	Mt. Wilson.
			7922	+2	67	−17	14	12	1		
			7922	+3	68	−17	14	194	1		
					(65)	(−3)		230	3		
31	14	11	7923	−70	340	−13	70	24	1	G	U. S. Naval.
			7923	−65	345	−14	66	48	1		
			7922	+16	66	−17	22	12	1		
			7922	+17	67	−17	24	194	1		
			7924	+43	93	+17	46	12	1		
					(50)	(−3)		290	5		

Mean daily area for 29 days=365

†Data from Mount Wilson charts.
*Not numbered.
VG=very good; G=good; F=fair; P=poor.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR NOVEMBER 1945

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland.]

November 1945	Relative numbers	November 1945	Relative numbers	November 1945	Relative numbers
1	56	11	31	21	35
2	--------	12	33	22	*Mc*45
3	38	13	49	23	56
4	36	14	65	24	54
5	--------	15	66	25	56
6	44	16	55	26	63
7	39	17	42	27	53
8	31	18	52	28	58
9	37	19	55	29	33
10	29	20	46	30	49

Mean, 28 days=46.6

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 disc; W, on the western part; M, in the central circle zone.