POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JANUARY 1946

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 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 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
1946	*h m*		°	°	°	°				
Jan. 1	10 55	7925	−79	320	−29	79	12	1	G	Mt. Wilson.
		7923	−59	340	−15	60	36	1		
		7923	−52	347	−15	53	36	4		
		7922	+30	69	−19	33	194	1		
		7924	+56	95	+17	60	121	18		
		(4)		(39)	(−3)		399	25		
2	11 4	7925	−67	319	−28	69	48	1	F	U. S. Naval.
		7923	−46	340	−13	47	73	3		
		7923	−38	348	−13	40	48	5		
		7922	+43	69	−18	45	194	1		
		7924	+68	94	+18	70	48	1		
		(4)		(26)	(−3)		411	11		
3	11 19	7925	−57	315	−30	61	24	1	G	Do.
		7925	−52	320	−29	57	48	1		
		7923	−33	339	−15	35	24	1		
		7923	−25	347	−15	28	6	1		
		7922	+56	68	−17	57	194	1		
		7924	+80	92	+17	80	48	1		
		(4)		(12)	(−3)		344	6		
4	11 58	7925	−44	315	−30	50	48	1	F	Do.
		7925	−42	317	−29	47	73	3		
		7925	−36	323	−29	43	48	1		
		7923	−19	340	−13	21	12	1		
		7922	+68	67	−17	68	145	2		
		(3)		(359)	(−3)		326	8		
5	14 53	7925	−30	314	−30	39	24	1	F	Do.
		7925	−25	319	−29	34	12	1		
		7925	−23	321	−28	33	12	1		
		7925	−22	322	−31	34	16	2		
		7925	−20	324	−29	32	48	1		
		7922	+81	65	−18	81	145	1		
		(2)		(344)	(−4)		257	7		
6	14 21	7925	−6	325	−30	27	73	1	P	Mt. Wilson.
		(1)		(331)	(−4)		73	1		
7	11 11	7925	+1	321	−30	26	12	2	G	Do.
		7925	+6	326	−30	27	48	1		
		(1)		(320)	(−4)		60	3		
8	12 7	7926	+9	315	−24	23	12	1	P	Do.
		7926	+13	319	−24	24	24	3		
		7925	+19	325	−30	31	36	1		
		(2)		(306)	(−4)		72	5		
9	11 10	7927	−13	281	−32	31	12	1	P	Do.
		7927	−12	282	−30	28	24	1		
		7925	+31	325	−31	41	16	1		
		(2)		(294)	(−4)		52	3		
10	11 21	7929	−70	210	+21	72	145	1	F	U. S. Naval.
		7928	−30	250	+20	38	48	2		
		7927	−1	279	−32	28	6	2		
		7925	+38	318	−30	45	24	4		
		7925	+43	323	−31	50	24	4		
		(4)		(280)	(−4)		247	13		
11	11 29	7929	−56	211	+21	60	145	1	F	Mt. Wilson.
		7928	−18	249	+19	28	61	1		
		7928	−12	255	+19	25	12	1		
		7930	+7	274	−7	7	48	1		
		7930	+7	274	−9	8	24	1		
		(3)		(267)	(−4)		290	5		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JANUARY 1946—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
1946	*h m*		°	°	°	°				
Jan. 12	10 52	7929	−42	212	+21	48	145	1	F	U. S. Naval.
		7929	−33	221	+25	43	12	1		
		7928	+2	256	+19	23	48	2		
		7928	+5	259	+20	24	24	1		
		7925	+70	324	−31	70	6	1		
		(3)		(254)	(−4)		235	6		
13	11 51	7936	−79	162	+22	79	194	1	F	Do.
		7935	−77	164	−18	77	194	1		
		7934	−65	176	+17	68	12	2		
		7933	−52	189	+20	56	121	3		
		7933	−49	192	+22	54	61	2		
		7932	−32	209	−37	45	73	3		
		7929	−28	213	+22	38	73	1		
		7931	−3	238	+31	35	145	3		
		7931	+1	242	+29	32	73	2		
		7928	+18	259	+19	28	12	1		
		(8)		(241)	(−4)		958	19		
14	11 39	7935	−70	157	−19	70	6	1	F	Do.
		7935	−68	159	−15	68	6	1		
		7935	−65	162	−18	65	145	1		
		7936	−65	162	+22	69	194	1		
		7934	−51	176	+17	55	24	1		
		7933	−40	187	+19	46	315	24		
		7933	−35	192	+20	42	97	1		
		7932	−19	208	−38	39	48	1		
		7929	−15	212	+21	29	73	2		
		7931	+8	235	+31	36	267	10		
		7931	+8	235	+27	32	48	1		
		7931	+11	238	+29	33	73	5		
		7931	+15	242	+28	35	194	1		
		(7)		(227)	(−4)		1,490	50		
15	12 24	7935	−54	160	−17	56	12	2	VG	Mt. Wilson.
		7935	−52	162	−18	54	145	1		
		7936	−51	163	+22	57	170	1		
		7934	−37	177	+16	42	12	1		
		7933	−27	187	+17	35	533	16		
		7938	−25	189	−15	26	12	7		
		7933	−20	194	+18	30	436	12		
		7932	−3	211	−38	33	6	2		
		7929	−1	213	+20	25	48	2		
		7937	+18	232	−38	37	6	1		
		7937	+19	233	−36	36	12	3		
		7931	+21	235	+32	42	485	30		
		7931	+25	239	+29	41	242	29		
		7931	+30	244	+29	45	194	1		
		(9)		(214)	(−5)		2,313	108		
16	10 59	7935	−38	163	−18	40	97	1	F	U. S. Naval.
		7936	−37	164	+22	46	109	1		
		7934	−25	176	+16	32	48	2		
		7934	−22	179	+16	30	73	3		
		7933	−13	188	+17	26	485	1		
		7933	−10	191	+18	25	97	5		
		7933	−5	196	+20	26	485	1		
		7929	+11	212	+21	28	48	1		
		7931	+32	233	+32	48	242	7		
		7931	+37	238	+27	49	97	3		
		7931	+40	241	+28	51	339	7		
		(6)		(201)	(−5)		2,120	32		
17	10 52	7935	−25	163	−18	28	97	1	G	Do.
		7936	−25	163	+21	37	121	1		
		7934	−15	173	+14	24	73	6		
		7934	−10	178	+13	21	109	1		
		7933	−2	186	+18	23	509	5		
		7933	+5	193	+20	25	485	1		
		7929	+23	211	+21	36	24	1		
		7931	+43	231	+32	55	291	15		
		7931	+50	238	+30	59	339	10		
		(6)		(188)	(−5)		2,048	41		
18	10 49	7936	−11	164	+22	29	145	1	F	Do.
		7935	−11	164	−18	18	121	1		
		7934	0	175	+14	19	61	4		
		7934	+4	179	+13	19	97	2		
		7933	+10	185	+18	25	388	8		
		7933	+20	195	+20	32	533	1		
		7931	+57	232	+32	65	194	5		
		7931	+64	239	+30	71	242	2		
		(5)		(175)	(−5)		1,781	24		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JANUARY 1946—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
1946	*h m*		°	°	°	°				
Jan. 19	10 24	7935	+1	163	−18	13	145	1	G	U. S. Naval.
		7936	+1	163	+22	27	121	1		
		7924	+12	174	+14	21	48	5		
		7934	+17	179	+13	24	121	3		
		7933	+23	185	+17	31	388	9		
		7933	+33	195	+20	41	485	1		
		7931	+78	240	+30	81	291	1		
		(5)		(162)	(−5)		1,599	21		
20	10 59	7939	−79	70	−15	80	388	1	P	Mt. Wilson.
		7935	+14	163	−18	19	97	1		
		7936	+14	163	+22	30	145	1		
		7934	+26	175	+14	32	48	4		
		7934	+32	181	+13	37	97	1		
		7933	+37	186	+17	42	339	1		
		7933	+41	190	+18	48	24	2		
		7933	+48	197	+19	51	291	1		
		(5)		(149)	(−5)		1,429	12		
21	14 6	7939	−73	61	−15	74	339	3	G	U. S. Naval.
		7939	−67	67	−14	67	242	2		
		7939	−66	68	−11	66	48	1		
		7939	−65	69	−13	65	485	1		
		7935	+30	164	−18	32	73	1		
		7936	+30	164	+22	40	109	1		
		7934	+48	182	+13	51	61	1		
		7933	+53	187	+17	56	315	2		
		7933	+61	195	+19	65	485	1		
		(5)		(134)	(−5)		2,157	13		
22	11 18	7939	−61	61	−15	67	291	4	F	Do.
		7939	−55	67	−14	56	242	2		
		7939	−54	68	−11	55	48	1		
		7939	−52	70	−14	53	485	1		
		7936	+40	162	+22	48	97	1		
		7935	+41	163	−18	43	73	1		
		7934	+59	181	+13	61	97	1		
		7933	+62	184	+17	67	339	1		
		7933	+71	193	+19	74	582	1		
		(5)		(122)	(−5)		2,254	13		
23	11 43	7939	−50	59	−17	52	97	2	G	Do.
		7939	−49	60	−16	50	145	4		
		7939	−43	66	−15	44	97	3		
		7939	−39	70	−14	40	485	1		
		7936	+53	162	+22	59	73	1		
		7935	+54	163	−18	55	36	2		
		7934	+71	180	+13	74	97	1		
		7933	+77	186	+15	79	242	2		
		(5)		(109)	(−5)		1,272	16		
24	11 20	7941	−68	28	+33	75	121	1	F	Do.
		7939	−37	59	−16	39	194	1		
		7939	−36	60	−17	38	48	1		
		7939	−29	67	−15	31	291	1		
		7939	−27	69	−15	30	436	1		
		7936	+65	161	+22	70	121	1		
		7935	+67	163	−17	68	24	2		
		(4)		(96)	(−5)		1,235	8		
25	10 53	7941	−56	27	+32	67	97	1	P	Do.
		7939	−25	58	−17	26	61	1		
		7939	−23	60	−16	25	145	5		
		7939	−17	66	−15	20	170	3		
		7939	−16	67	−15	18	436	1		
		7936	+78	161	+22	80	145	1		
		(3)		(83)	(−6)		1,054	12		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JANUARY 1946—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
1946	*h m*									
Jan. 26	11 37	7941	−42	27	+32	57	48	1	F	U. S. Naval.
		7939	−12	57	−17	17	61	1		
		7939	−9	60	−16	14	61	4		
		7939	−6	63	−16	12	12	1		
		7939	−4	65	−16	11	48	4		
		7939	−3	66	−14	9	145	3		
		7939	−2	67	−14	8	436	1		
		(2)		(69)	(−6)		811	15		
27	11 14	7942	−75	342	−15	75	145	1	P	Do.
		7941	−30	27	+32	49	48	1		
		7939	+3	60	−17	12	97	7		
		7939	+10	67	−16	15	24	2		
		7939	+12	69	−15	15	485	1		
		(3)		(57)	(−6)		799	12		
28	11 31	7942	−70	333	−15	70	61	2	F	Do.
		7942	−65	338	−15	65	24	2		
		7942	−61	342	−15	61	97	1		
		7941	−17	26	+32	42	36	1		
		7939	+17	60	−17	21	97	10		
		7939	+25	68	−15	27	485	1		
		(3)		(43)	(−6)		800	17		
29	10 53	7943	−87	303	+25	88	533	1	G	Do.
		7943	−80	310	+22	82	24	1		
		7943	−79	311	+25	83	630	1		
		7942	−53	337	−16	53	73	9		
		7942	−48	342	−16	48	61	1		
		7941	−4	26	+32	39	24	1		
		7939	+31	61	−17	33	97	14		
		7939	+39	69	−15	40	485	1		
		(4)		(30)	(−6)		1,927	29		
30	12 50	7943	−86	290	+29	88	1,648	1	(†)	Mt. Wilson.
		7944	−82	294	−17	82	97	1		
		7943	−66	310	+27	75	1,357	4		
		7942	−36	340	−16	38	97	10		
		7941	+10	26	+32	40	12	1		
		7939	+52	68	−13	52	436	10		
		(*)	+70	86	+14	74	12	1		
		(6)		(16)	(−6)		3,659	28		
31	11 2	7943	−73	291	+29	80	3,491	10	G	Do.
		7944	−71	293	−16	71	145	7		
		7943	−55	309	+26	65	1,406	3		
		7942	−29	335	−17	31	97	16		
		7942	−23	341	−16	26	73	2		
		7945	+2	6	−20	15	36	11		
		7941	+22	26	+32	43	6	1		
		7939	+59	63	−17	59	388	3		
		7939	+66	70	−14	67	48	2		
		(6)		(4)	(−6)		5,690	55		

Mean daily area for 31 days=1,231
Mean 10 g + s for 31 days =61.9

*Not numbered.
†Data from Mount Wilson charts.
VG=very good; G=good; F=fair; P=poor.
g=number of groups; s=number of spots.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR DECEMBER 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]

December 1945	Relative numbers	December 1945	Relative numbers	December 1945	Relative numbers
1	52	11	32	21	18
2	42	12	32	22	18
3	34	13	40	23	20
4	36	14	42	24	18
5	35	15	38	25	--------
6	30	16	34	26	18
7	23	17	46	27	21
8	30	18	42	28	19
9	16	19	35	29	13
10	30	20	--------	30	15
				31	24

Mean, 29 days=29.4
Provisional mean for 1945=33.0

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR JANUARY 1946

January 1946	Relative number	January 1946	Relative numbers	January 1946	Relative numbers
1	25	11	35	21	58
2	35	12	21	22	44
3	34	13	73	23	48
4	24	14	103	24	59
5	18	15	109	25	--------
6	12	16	93	26	29
7	10	17	83	27	45
8	15	18	59	28	43
9	19	19	56	29	50
10	38	20	51	30	56
				31	83

Mean, 30 days=47.6