TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram-calories per square centimeter]

Date	Washington	Madison	Lincoln	East Lansing	New York	Fairbanks	Nashville	Twin Falls	La Jolla	New Orleans	Riverside	Blue Hill	Newport	State College	Put-in-Bay	East Wareham	Fresno	Davis, Calif.
1943	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
June 4	682	732	696	536	574	580	444	270	584	528	543	618	631	522	600	609	725	787
June 5	628	209	68	631	710	352	698	699	459	641	651	718	754	706	745	702	727	772
June 6	253	123	193	239	679	316	637	522	590	-------	689	733	741	580	285	740	719	788
June 7	561	554	61	172	106	430	580	727	-------	667	634	673	678	289	269	92	718	776
June 8	-------	377	224	376	496	666	486	632	362	-------	611	632	682	182	658	609	670	741
June 9	-------	466	202	719	139	691	581	639	620	645	520	532	438	68	744	535	690	762
June 10	-------	725	502	564	412	654	537	708	500	-------	555	656	720	241	535	708	669	647
Mean	531	455	278	463	445	570	566	599	519	615	600	566	578	370	548	571	703	753
Departure	+21	−56	−244	-------	−47	+67	+22	+12	−15	+141	+64	+41	+18	−96	-------	-------	+30	-------
June 11	421	220	643	578	635	650	583	241	244	-------	314	570	626	639	642	520	727	735
June 12	482	585	714	572	472	450	599	531	472	-------	198	698	718	554	666	725	587	649
June 13	574	582	570	707	386	590	385	350	598	496	549	376	254	510	705	260	716	769
June 14	667	609	749	515	622	584	542	574	747	653	679	704	696	732	538	732	721	799
June 15	577	532	770	561	490	571	575	598	730	509	627	614	587	357	602	610	717	806
June 16	477	267	737	287	614	603	679	743	720	-------	650	495	605	647	531	561	702	796
June 17	636	599	616	566	236	518	657	717	618	-------	652	570	528	545	668	587	695	776
Mean	548	485	671	541	494	567	574	536	590	-------	524	575	573	569	622	571	695	762
Departure	+45	−20	+136	-------	+6	+58	+35	−76	+44	-------	−41	+89	+75	+70	-------	-------	+2	-------
June 18	692	713	442	734	603	702	701	655	538	-------	660	578	629	595	731	567	709	730
June 19	735	716	740	707	669	689	681	392	449	587	686	478	597	673	707	468	727	747
June 20	691	381	729	590	526	677	626	733	581	576	686	542	664	597	644	581	726	736
June 21	681	693	757	553	535	705	608	737	755	499	664	649	701	580	600	678	625	566
June 22	649	673	642	703	467	712	584	596	734	512	662	615	603	641	727	558	749	824
June 23	693	581	592	693	635	700	592	720	706	530	685	746	779	696	726	750	754	807
June 24	601	521	705	664	538	609	533	744	698	546	682	636	710	580	611	692	750	819
Mean	678	611	658	663	568	685	618	654	637	542	675	606	669	623	678	613	720	747
Departure	+175	+74	+81	-------	+70	+143	+66	−22	+36	+82	+72	+54	+93	+82	-------	-------	+4	-------
June 25	680	569	669	617	556	479	682	742	687	522	680	674	663	618	626	647	749	817
June 26	626	648	717	438	433	547	590	737	738	404	643	507	671	537	446	606	754	807
June 27	601	488	708	402	552	559	384	737	-------	479	653	592	618	557	560	628	737	817
June 28	652	652	740	462	536	572	401	709	-------	410	643	524	616	537	479	567	723	784
June 29	331	386	765	479	142	554	459	621	679	627	646	130	184	454	660	166	729	804
June 30	732	770	241	708	636	479	757	624	646	428	663	624	767	414	748	675	718	780
July 1	872	580	469	598	645	672	679	707	633	444	650	667	781	667	735	687	705	766
Mean	642	585	616	529	500	552	565	697	677	474	654	531	614	540	608	568	731	796
Departure	+112	+48	+28	-------	+13	+88	+34	+64	+105	+26	+67	+28	+48	+20	-------	-------	+31	-------
ACCUMULATED DEPARTURES ON JULY 1, 1943																		
	+2765	+518	+2744	-------	−3010	+931	+539	+133	−3647	-------	−483	−2016	−329	−2450	-------	-------	-------	-------

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JUNE 1943

[Communicated by Capt. 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 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
1943	*h m*		°	°	°	°				
June 1	8 54	7581	+24	298	+5	25	6	1	G	Mt. Wilson.
		7581	+31	305	+3	31	12	2		
		7580	+34	308	+6	35	6	1		
				(274)	(−1)		24	4		
2	10 11				No spots				F	Do.
3	10 41	(*)	−80	167	−36	80	6	1	VG	U. S. Naval.
		(*)	+52	299	+8	53	12	1		
		(*)	+55	302	+7	56	6	1		
		(*)	+58	305	+6	59	6	1		
				(247)	(0)		30	4		
4	10 15				No spots				G	Mt. Wilson.
5	11 29				No spots				G	U. S. Naval.
6	8 54	(*)	−38	170	−35	50	6	1	VG	Mt. Wilson.
				(208)	(0)		6	1		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JUNE 1943—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
1943	*h m*		°	°	°	°				
7	11 43	7583	−87	106	+9	87	97	1	F	U. S. Naval.
		7583	−81	112	+9	81	24	1		
				(193)	(0)		121	2		
8	14 51	7583	−72	106	+9	72	97	1	F	Do.
		7582	−20	158	−38	42	6	1		
				(178)	(0)		103	2		
9	8 34	7583	−60	109	+9	61	109	1	VG	Mt. Wilson.
				(169)	(0)		109	1		
10	8 35	7583	−47	108	+9	48	97	1	VG	Do.
				(155)	(0)		97	1		
11	12 6	7583	−33	107	+9	34	97	1	F	U. S. Naval.
				(140)	(+1)		97	1		
12	11 52	7584	−58	69	+15	59	48	5	VG	Do.
		7583	−19	108	+9	20	73	1		
				(127)	(+1)		121	6		
13	11 36	7584	−46	68	+15	48	48	3	P	Do.
		7583	−6	108	+9	10	73	1		
				(114)	(+1)		121	4		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR JUNE 1943—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
1943	h m		°	°	°	°				
14	10 44	7584	−32	69	+14	34	48	13	VG	Do.
		7583	+8	109	+8	12	73	2		
		(*)	+15	116	+13	19	12	4		
		(*)	+18	119	+17	23	24	1		
				(101)	(+1)		157	20		
15	10 39	7584	−18	70	+14	22	24	6	G	Do.
		7583	+20	108	+8	21	48	2		
		7585	+52	140	+6	52	6	2		
		(*)	+65	153	−41	73	6	1		
				(88)	(+1)		84	11		
16	11 36	7584	−4	70	+13	13	48	13	VG	Do.
		7583	+34	108	+8	35	36	3		
				(74)	(+1)		84	16		
17	10 51	7584	+11	72	+13	17	48	10	G	Do.
		7586	+40	101	−1	40	48	2		
		7583	+48	109	+8	49	36	1		
				(61)	(+1)		132	13		
18	10 42	7584	+24	72	+13	27	388	1	G	Do.
		7586	+52	100	−1	52	12	2		
				(48)	(+1)		400	3		
19	8 34			No spots					F	Mt. Wilson.
20	11 28			No spots					F	Do.
21	11 28			No spots					VG	U. S. Naval.
22	11 24	7587	−23	332	−2	24	24	3	VG	Do.
				(355)	(+2)		24	3		
23	10 44	7587	−10	332	−2	11	97	10	VG	U. S. Naval
				(342)	(+2)		97	10		
24	10 55	7587	+4	333	−2	6	73	4	G	Do.
				(329)	(+2)		73	4		
25	11 20	7587	+18	333	−2	19	48	1	G	Do.
				(315)	(+2)		48	1		
26	10 35	7587	+32	334	−2	32	48	3	VG	Do.
				(302)	(+2)		48	3		
27	11 39	7587	+46	335	−2	46	24	3	VG	Do.
				(289)	(+2)		24	3		
28	10 44	7587	+60	336	−2	60	12	4	F	Do.
				(276)	(+3)		12	4		
29	8 20			No spots					VG	Mt. Wilson
30	11 25	7588	+37	286	+11	38	24	7	VG	U. S. Naval
				(249)	(+3)		24	7		

Mean daily area for 30 days = 68.

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

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR FEBRUARY 1943

[Based on observations at Zurich. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

February 1943	Relative numbers	February 1943	Relative numbers	February 1943	Relative numbers
1	10	11	*b* 37	21	*Ec* 31
2	* 11	12	31	22	*Mc* 54
3	20	13	21	23	62
4	16	14	29	24	60
5	7	15	16	25	*b* 63
6	0	16	16	26	61
7	-------	17	11	27	50
8	*Ecc* 25	18	*Ec* 15	28	56
9	38	19	11		
10	37	20	*d* 20		

Mean, 27 days=29.9

(*)=Observed at Arosa.
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.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR MARCH 1943

[Based on observations at Zurich. Data furnished through the courtesy of Prof. W Brunner, Swiss Federal Observatory, Zurich, Switzerland]

March 1943	Relative numbers	March 1943	Relative numbers	March 1943	Relative numbers
1	46	11	53	21	*Ec* 37
2	38	12	46	22	25
3	16	13	44	23	35
4	*d* 10	14	21	24	*a* 34
5	16	15	29	25	*a* 28
6	19	16	11	26	25
7	37	17	0	27	24
8	32	18	*d* 10	28	20
9	39	19	11	29	* 10?
10	*b* 39	20	21	30	*Mc* 25
				31	*d* 33

Mean, 31 days=26.9

*=Observed at Locarno.
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.

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