Atmospheric conditions during solar radiation measurements. Blue Hill Observatory of Harvard University

Date and time from apparent noon	Air temperature	Wind (Beaufort scale)	Visibility (scale 0-10)	Sky blueness	Cloudiness and remarks
July 1935	°C.				
1;2:26 p. m.	22.78	NE 2	9	10	3 Ci, 1 Cu, light haze in N.
2;0:26 a.m.	20.56	E 3	9	10	6 Ci, few Cu, light haze in N and W.
4;3:02 a.m.	22.22	SW 5	9	7	4 Acu, light haze.
4;0:36 a.m.	23.89	SW 5	8	6	3 Acu, light haze.
8;3:51 p. m.	23.89	SSE 5	9	9	Few Acu, 6 Cu, light water haze.
10;3:28 p. m.	25.00	SW 1	8-9	10	3 Acu, 3 Cu, light haze in N.
11;2:34 p.m.	27.78	S 1 1	8	8	3 Ci, 4 Cu, light haze.
12;2:42 p.m.	30.56	WSW 5	8	8	3 Cu, Frcu, moderate haze.
17;2:51 a.m.	22.22	W 2	7	7	2 Ci, 3 Cu, heavy water haze.
18;2:30 p.m.	28.33	WSW 5	8	8	7 Cu, Frcu, moderate haze.
20;4:40 a.m.	21.56	NNE 3	7	4	Ci haze.
20;3:42 a.m.	22.22	NNE 3	7		Ci haze, Cu increasing.
20;3:23 p.m.	21.67	NE 3	7		Light haze.
23;2:51 a.m.	27.78	WxS 4	8	4	Ci haze.
26;0:04 p. m.	20.68	NE 5	9	7	Clear.
26;3:52 p.m.	21.56	E 2	9		1 Ci, Cu.
27;4:58 a. m.	16.94	N 2	9	6	Few Ci in E.
27;1:34 a. m.	16.11	NNE 2	9	6	Clear.
27;0:58 p. m.	15.56	NE 3	9	6	Cu on horizon.
28;3:54 a. m.	20.00	SE 2	9	4	Few Ci in E.
28;1:32 a.m.	21.67	SE 2	9	9	2 Ci, No haze.
28;0:08 a.m.	22.50	SE 2	9	9	3 Ci. No haze.
28;2:46 p. m.	24.44	SSE 3	9	9	2 Ci, few Acu, few Cu, no haze.
30;2:24 a. m.	22.11	N 5-6	9	6	Ci, highest near sun.
30;1:10 p. m.	23.33	NE 2	9	6	Thin Ci?

[1] Wind direction variable.

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. J. F. Hellweg, U. S. Navy Superintendent U. S. Naval Observatory. Data furnished by the U. S. Naval Observatory in cooperation with Harvard and Mount Wilson Observatories. The difference in longitude is measure from the central meridian, positive west. The north latitude is positive. Areas are corrected for foreshortening and are expressed in millionths of the sun's visible hemisphere. The total area for each day includes spots and groups]

Date	Eastern standard time		Heliographic			Area		Total area for each day	Observatory
			Diff. in longitude	Longitude	Latitude	Spot	Group		
1935	h	m	°	°	°				
July 1	9	4	+24.0	308.0	−23.5		1,124	1,124	Harvard.
July 2	14	10	+35.0	302.9	−25.0		772	772	U. S. Naval.
July 3	11	4	−80.0	176.4	+25.0	46			
			+46.0	302.4	−25.5		556	602	Do.
July 4	10	30	−71.0	172.5	+27.0	276			
			+64.5	308.0	−22.0		375	651	Harvard.
July 5	11	37	−75.0	154.6	−35.0		77		U. S. Naval.
			−56.0	173.6	+25.0	62			
			+75.0	304.6	−26.0		278	417	
July 6	10	9	−62.0	155.2	−34.0		247		Do.
			−44.0	173.2	+24.5	46		293	
July 7	11	58	−48.0	154.9	−34.0		247		Do.
			−30.0	172.9	+24.5	46		293	
July 8	9	50	−69.0	121.9	−19.5	224			Mt. Wilson.
			−51.0	139.9	+22.0		30		
			−32.0	158.9	−34.0		257		
			−18.0	172.9	+25.0	48		559	
July 9	10	58	−58.0	119.0	−19.0	139			U. S. Naval.
			−37.0	140.0	+22.0		62		
			−19.5	157.5	−34.0		154		
			−4.0	173.0	+24.0	46		401	
July 10	12	4	−44.0	119.2	−19.0	123			Do.
			−23.0	140.2	+22.0		46		
			−7.0	156.2	−34.0	108			
			+9.5	172.7	+24.0	31		308	
July 11	11	47	−30.0	120.1	−20.0	139			Do.
			−9.0	141.1	+21.5		46		
			+7.0	157.1	−35.0	93			
			+21.5	171.6	+24.0	15		293	
July 12	10	55	−65.0	72.4	−28.0		62		Do.
			−19.0	118.4	−20.0	139			
			+5.0	142.4	+21.0		31		
			+12.0	149.4	−20.0	123			
			+19.5	156.9	−35.5	123			
			+35.0	172.4	+24.5	15		493	
July 13	12	14	−51.0	72.4	−28.0		139		Do.
			−4.0	119.4	−20.0	123			
			+35.0	158.4	−35.0	93			
			+48.0	171.4	+25.0	15		370	

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time		Heliographic			Area		Total area for each day	Observatory
			Diff. in longitude	Longitude	Latitude	Spot	Group		
1935	h	m	°	°	°				
July 14	10	59	−38.0	72.8	−28.0		216		Do.
			+9.0	119.8	−20.0	139			
			+45.0	155.8	−35.0	93		448	
July 15	13	16	−75.0	21.4	−18.5	15			Do.
			−24.0	72.4	−28.5		185		
			+22.0	118.4	−20.0	123			
			+59.0	155.4	−35.0	77		400	
July 16	11	27	−60.0	24.1	−19.0	62			Do.
			−11.0	73.1	−28.5		185		
			+36.0	120.1	−19.5	123			
			+71.0	155.1	−35.0	62		432	
July 17	11	40	−49.0	21.8	−19.0	46			Do.
			+4.0	74.8	−28.0		185		
			+49.0	119.8	−19.5	123		354	
July 18	11	14	−35.5	22.3	−19.0	31			Do.
			+16.5	74.3	−28.5		185		
			+62.0	119.8	−19.5	123		339	
July 19	11	35	−28.5	15.9	+29.0		123		Do.
			−21.0	23.4	−19.0	31			
			+29.0	73.4	−28.5		185		
			+76.0	120.4	−19.5	108		447	
July 20	12	12	−15.0	15.8	+29.0		278		Do.
			+44.0	74.8	−28.0		247	525	
July 21	12	40	−1.5	15.8	+29.0		247		Do.
			+60.0	77.3	−28.0		185	432	
July 22	11	19	+12.5	17.3	+29.0		247		Do.
			+73.0	77.8	−28.0		93	340	
July 23	10	57	+25.0	16.8	+29.0		247	247	Do.
July 24	9	45	−42.0	297.2	−24.0	3			Mt. Wilson.
			+38.0	17.2	+29.0		334	337	
July 25	11	14	+52.0	17.2	+28.5		247	247	U. S. Naval.
July 26	13	30	+64.0	14.7	+28.0		264		Mt. Wilson.
			+80.0	30.7	+17.0	10		274	
July 27	11	10	+69.0	7.8	+28.0	123		123	U. S. Naval.
July 28	11	30	+85.0	10.3	+28.0	84		84	Mt. Wilson.
July 29	11	4	No spots						U. S. Naval.
July 30	11	41	−70.0	188.8	−19.0		77	77	Do.
July 31	13	40	−56.0	188.5	−18.0		77	77	Do.

Mean daily area for 31 days, 379.

PROVISIONAL SUN-SPOT RELATIVE NUMBERS, JULY 1935

(Dependent alone on observations at Zurich and its station at Arosa)

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

July 1935	Relative numbers	July 1935	Relative numbers	July 1935	Relative numbers
1	41	11	*a* 44	21	36
2	29	12	*Ec* 59	22	32
3	29	13	63	23	30
4	24	14	*a* 51	24	29
5	*d* 28	15	49	25	23
6	29	16	49	26	19
7	22	17	*a* 47	27	11
8	*d* 50	18	46	28	8
9	44	19	*Ec* 51	29	0
10	38	20	*b* 60	30	*Ec* 8
				31	8

Mean, 31 days=34.1.

a=Passage of an average-sized group through the central meridian.
b=Passage of a large group or spot through the central meridian.
c=New formation of a 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.