LATE REPORT

Summary of meteorological conditions during solar observations for March 1937

Date	Time from local noon	Temperature ° C.	Wind-Beaufort	Visibility	Sky blue	Cloudiness and remarks
Nov. 1	3:02 a. m.	−4.4	W 3	7	8	Moderate to dense haze.
1	1:47 a. m.	−0.6	W 2	7	8	Do.
1[1]	1:38 a. m.	−0.3	W 2	7	8	Do.
1	0:08 p. m.	+2.2	WSW 2	8	8	Moderate haze.
1	2:13 p. m.	+4.4	WSW 3	8	8	Light haze.
1	3:13 p. m.	+4.4	WSW 4	7	8	Do.
2	3:35 a. m.	−1.6	W 3	6	8	1 Cu., Moderate haze.
2	0:51 a. m.	+3.9	W 3	7	8	1 Ci., Few Cu., Moderate haze.
3	3:41 a. m.	−3.3	NNW 3	7	8	Few Cu., Moderate haze.
3	1:09 a. m.	−0.3	NW 3	9	8	Few Cu., Light haze.
3	1:34 p. m.	+2.3	WNW 3	10	9	
3	3:03 p. m.	+2.7	NW 3	10	9	
7	3:16 a. m.	−9.7	NW 4	10	9	
7[1]	2:05 a. m.	−8.2	NW 4	10	9	
7	1:49 a. m.	−7.8	NW 4	10	9	
7	2:22 p. m.	−1.4	WNW 5	10	9	
10	3:06 a. m.	−8.3	W 4	9	8	Few Ci., Few Cu., Light haze to North.
10[1]	2:57 a. m.	−8.0	W 4	9	8	Do.
11	2:59 a. m.	−5.0	NW 3	3	3	
12	3:38 a. m.	−4.7	N 3	5	7	1 Acu., Dense haze.
12	1:24 p. m.	−2.2				Discontinued because of clouds.
12	2:23 p. m.	−2.2				Do.
14	0:44 a. m.	−1.8	NNW 2	6	7	1 Ci., Dense haze.
18	2:37 a. m.	+4.3	WSW 5	7	8	Few Acu., Moderate haze.
19	1:40 a. m.	+4.4	WSW 5	8	7	2 Acu., Few Cu., Moderate haze.
20	3:46 a. m.	+1.5	W 6	7	8	Few Ci., Few Acu., Moderate haze.
22	3:23 a. m.	+1.7	W 5	9	8	1 Cu., Light to moderate haze.
22	0:34 a. m.	+3.9	W 5	9	8	1 Cu., Light haze.
22	2:29 p. m.	+3.9	W 6	9+	8	1 Cu.
22	4:31 p. m.	+3.9	W 5	9+	8	Few Cu., Light haze.
23	3:23 a. m.	−2.2	W 3	8	8	Do.
24	4:08 a. m.	−2.2	W 2	7	7	Moderate haze.
24[1]	3:26 a. m.	−1.5	WSW 2	7	7	Do.
24	3:11 a. m.	−1.4	W 2	8	8	Do.
24	0:45 a. m.	+2.8	WSW 3	9	8	Few Cu., Light haze to North.
26	3:24 a. m.	−5.4	W 4	8	8	Few Cu., Light haze.
26[1]	3:12 a. m.	−5.0	W 4	8	8	Do.
26	0:53 a. m.	−2.2	W 4	9	8	Few Ci., 1 Cu.
27	3:33 a. m.	−0.6	W 5	8	8	2 Acu., Few Cu.
28	3:16 p. m.	+1.0	NW 5	10	8	3 Cu., 1 Ci.
28	4:38 p. m.	0.0	NW 4	10	8	2 Ci., Few Cu.
29	3:30 a. m.	−1.0	WNW 4	9	7	Few Ci., Few Acu. 3 Cu., 1 Stcu.
29	1:35 a. m.	+1.8	NW 4	10	8	Few Ci., Few Acu., Few Cu.
29[1]	1:21 a. m.	+2.4	NW 4	10	8	
29	1:50 p. m.	+7.2	W 4	10	7	Few Acu., Few Cu.
29	4:51 p. m.	+7.2	WNW 5	10	7	Few Ci., Few Acu.
30	3:31 a. m.	−0.5	WNW 4	9	8	Few Cu.
30	0:44 a. m.	+3.3	NW 4	10	7	
30	2:24 p. m.	+6.1	NW 4	10	7	
30	4:59 p. m.	+5.2	NW 4	10	7	
31	0:35 a. m.	+3.6	NNW 2	8	7	3 Ci., Moderate haze.
31	2:27 p. m.	+7.2	NE 1	9	7	3 Ci., Light haze Ci. passed on front of sun.
31	3:30 p. m.	+7.6	SE 1	9	6	2 Ci., Light haze.

[1] Denotes Smithsonian observation.

The vapor pressure at 8:00 p. m. March 31, 1937, was 2.9 mm.

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. J. F. Hellweg, U. S. Navy (Ret.), 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 measured 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: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
Apr. 1	11 16	−64.0	53.7	+10.0		97		U. S. Naval.
		−59.0	58.7	+22.0	97			
		−31.0	86.7	+15.5		194		
		−21.0	96.7	+ 8.5		73		
		− 7.5	110.2	− 9.0	73			
		+12.0	129.7	+10.0		97		
		+21.0	138.7	+ 9.5		242		
		+37.5	155.2	+11.0		48		
		+47.5	165.2	+ 9.5		145		
		+50.0	167.7	+ 7.5		194	1,260	
Apr. 2	11 17	−49.0	55.5	+10.0	48			Do.
		−44.0	60.5	+22.0	61			
		−18.0	86.5	+15.5		97		
		− 9.0	95.5	+ 9.5		36		
		+ 7.5	112.0	− 8.0	48			
		+26.0	130.5	+10.5		339		
		+34.5	139.0	+ 9.5		388		
		+60.0	164.5	+ 9.0	145			
		+63.0	167.5	+ 7.0	194		1,356	

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
Apr. 3	10 23	−75.0	16.8	−21.5		194		U. S. Naval.
		−44.0	47.8	−14.5		48		
		−35.5	56.3	+10.0		48		
		−31.0	60.8	+22.0	73			
		− 4.0	87.8	+15.5		97		
		+ 5.0	96.8	+ 9.0		48		
		+ 5.5	97.3	− 9.5	24			
		+19.0	110.8	− 7.5	36			
		+35.0	126.8	+10.0		242		
		+41.0	132.8	+11.0		436		
		+50.0	141.8	+ 9.0		436		
		+72.0	163.8	+ 9.0	145			
		+76.0	167.8	+ 7.0	194		2,021	
Apr. 4	14 19	−59.0	17.4	−22.0	103			Harvard.
		−50.0	26.4	−20.0	125			
		−19.0	57.4	+ 9.5		161		
		−14.0	62.4	+23.0	84			
		+51.0	127.4	+12.0		207		
		+60.0	136.4	+13.0		411		
		+70.0	146.4	+10.0		347	1,438	
Apr. 5	10 46	−56.0	9.2	− 8.0		170		Mt. Wilson.
		−46.0	19.2	−21.0		436		
		− 9.0	56.2	+10.5		97		
		− 4.5	60.7	+21.0	73			
		+23.0	88.2	+15.0		145		
		+62.0	127.2	+10.0		291		
		+69.0	134.2	+11.0		485		
		+79.0	144.2	+ 9.0		388	2,085	
Apr. 6	10 56	−41.0	10.9	− 9.0		170		U. S. Naval.
		−33.0	18.9	−21.0		388		
		+ 9.0	60.9	+21.0	48			
		+ 9.5	61.4	+10.5	73			
		+33.0	84.9	+15.0	48			
		+39.0	90.9	+13.0		36		
		+75.0	126.9	+10.0		242		
		+83.0	134.9	+11.0		339	1,344	
Apr. 7	11 0	−32.0	6.7	− 7.0	16			Do.
		−27.5	11.2	− 9.0		145		
		−22.0	16.7	−21.0		242		
		−14.0	24.7	−20.5	194			
		+15.0	53.7	−13.5		24		
		+20.5	59.2	+21.0	24			
		+24.0	62.7	+10.5	24			
		+50.0	88.7	+14.5		97		
		+73.0	111.7	−30.5		97	863	
Apr. 8	10 32	−55.0	330.7	−26.5	6			Mt. Wilson.
		−19.0	6.7	−7.0		12		
		−15.0	10.7	+29.0		24		
		−14.0	11.7	−9.0		73		
		−10.0	15.7	−21.0		339		
		−1.0	24.7	−21.0	145			
		+9.0	34.7	+20.0		48		
		+37.0	62.7	+10.0	12			
		+61.0	86.7	+13.0		73	732	
Apr. 9	9 16	−5.0	8.2	−7.0		48		Do.
		0.0	13.2	−21.5		194		
		+1.0	14.2	−9.5		73		
		+4.0	17.2	+30.0		48		
		+6.0	19.2	−21.0		24		
		+9.0	22.2	+27.0	12			
		+12.0	25.2	−21.0	145			
		+21.0	34.2	−12.5		24		
		+23.0	36.2	+20.0		61		
		+51.0	64.2	+9.0	12			
		+73.0	86.2	+13.0		48	689	
Apr. 10	11 2	+14.0	13.1	−21.5		194		U. S. Naval.
		+17.0	16.1	−9.5		73		
		+18.0	17.1	+30.0		48		
		+26.0	25.1	−21.0	121			
		+39.0	38.1	+19.5		109	545	
Apr. 11	13 25	−4.0	340.5	+10.0		97		Do.
		+29.0	13.5	−22.0		145		
		+32.0	16.5	−10.0	48			
		+40.0	24.5	−21.5		97		
		+54.0	38.5	+19.0		194	581	
Apr. 12	11 1	−42.5	290.2	−11.5		73		Do.
		+8.0	340.7	+10.5		48		
		+40.0	12.7	−22.0		73		
		+44.0	16.7	−10.0	24			
		+51.5	24.2	−21.0		61		
		+66.0	38.7	+20.0		194		
		+68.5	41.2	−11.0	12		485	
Apr. 13	10 54	−29.0	290.5	−11.5		48		Do.
		+53.0	12.5	−22.5	48			
		+65.0	24.5	−21.0	97		193	
Apr. 14	10 51	+67.0	13.3	−23.0	73			Mt. Wilson.
		+70.0	16.3	−15.0	48			
		+79.0	25.3	−22.0	97		218	
Apr. 15	14 56	−70.0	220.9	+10.5	97			U. S. Naval.
		−20.5	270.4	−31.0		121		
		0.0	290.9	−11.0		97	315	
Apr. 16	12 26	−60.0	219.1	+10.0		170		Do.
		−31.0	248.1	−25.0		48		
		−9.0	270.1	−31.0		145		
		+12.5	291.6	−11.0		121	484	
Apr. 17	10 50	−48.0	218.7	+10.0		194		Do.
		+2.5	269.2	−30.5		121		
		+25.0	291.7	−10.0		121	436	
Apr. 18	11 21	−50.0	203.2	−9.5		109		Do.
		−36.0	217.2	+10.0		24		
		−30.0	223.2	+10.0	194			
		+15.0	268.2	−31.0		73		
		+38.5	291.7	−10.0		97	497	

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
Apr. 19	11 7	−74.0	166.2	+9.5	145			U. S. Naval.
		−66.0	174.2	−16.5	97			
		−61.0	179.2	+20.5		48		
		−37.0	203.2	−9.5		436		
		−18.0	222.2	+10.0		97		
		+27.0	267.2	−31.0		48		
		+48.0	288.2	−10.5	48		919	
Apr. 20	11 13	−59.0	167.9	+9.0	97			Do.
		−51.0	175.9	−17.0	61			
		−51.0	175.9	+20.0		485		
		−33.0	193.9	+26.0		73		
		−24.0	202.9	−9.5		679		
		−4.0	222.9	+10.0	97			
		+60.0	286.9	−10.0	48		1540	
Apr. 21	9 12	−46.0	165.7	+9.5	121			Mt. Wilson.
		−40.0	171.7	−16.0	61			
		−39.0	172.7	+20.5		1261		
		−21.0	190.7	+26.0		339		
		−11.0	200.7	−9.5		582		
		+9.0	220.7	+10.5		97		
		+73.0	284.7	−10.5	97		2558	
Apr. 22	11 5	−31.0	169.6	+9.0	121			U. S. Naval.
		−26.0	174.6	−17.0	48			
		−25.0	175.6	+20.0		1648		
		−6.0	194.6	+26.0		873		
		0.0	200.6	+9.0		121		
		+3.0	203.6	−9.5		582		
		+21.0	221.6	+10.0	73		3466	
Apr. 23	11 21	−19.0	168.2	+9.5	73			Do.
		−11.5	175.7	+20.0		1648		
		−11.0	176.2	−16.5	48			
		+6.0	193.2	+26.0		873		
		+13.5	200.7	+9.0		170		
		+16.0	203.2	−9.5		485		
		+35.0	222.2	+10.0	61		3358	
Apr. 24	9 21	−6.0	169.1	+10.0	73			Mt. Wilson.
		0.0	175.1	−16.5	24			
		+1.0	176.1	+21.0		2085		
		+4.0	179.1	−9.5		36		
		+21.0	196.1	+26.0		1164		
		+27.0	202.1	+9.5		145		
		+29.0	204.1	−9.5		485		
		+31.0	206.1	−23.0		48		
		+39.0	214.1	+11.0		36		
		+49.5	224.6	+10.5		61	4157	
Apr. 25	9 15	−57.0	105.0	−21.0		88		Do.
		+6.0	168.0	+8.0	107			
		+11.0	173.0	+20.0		2274		
		+12.0	174.0	−16.0		5		
		+15.0	177.0	−10.0		70		
		+18.0	180.0	+10.0		34		
		+33.0	195.0	+24.0		1435		
		+39.0	201.0	+9.0		90		
		+40.0	202.0	−9.0		570		
		+44.0	206.0	−24.0		10		
		+61.0	223.0	+11.0	97		4780	
Apr. 26	12 31	−51.0	95.9	+21.0		73		Do.
		−41.0	105.9	−20.0		388		
		+3.0	149.9	+21.0		48		
		+23.0	169.9	+10.0	73			
		+28.0	174.9	+20.5		2279		
		+29.5	176.4	−11.0		291		
		+35.0	181.9	+11.0		121		
		+48.0	194.9	+27.0		1600		
		+55.0	201.9	+9.5		73		
		+56.0	202.9	−9.5		485	5431	
Apr. 27	11 40	−26.0	108.2	−20.0		727		U. S. Naval.
		+36.0	170.2	+10.0	48			
		+41.0	175.2	+19.5		1988		
		+43.0	177.2	−10.0		339		
		+49.0	183.2	+10.5		97		
		+60.0	194.2	+27.0		1164		
		+69.0	203.2	+9.5		388	4751	
Apr. 28	11 16	−13.0	108.2	−20.5		970		Do.
		+49.5	170.7	+10.0	61			
		+54.0	175.2	+19.5		1988		
		+57.0	178.2	−10.0		291		
		+75.0	196.2	+27.0		1309	4619	
Apr. 29	11 48	−70.0	37.7	+19.5	145			Do.
		+1.0	108.7	−20.5		970		
		+62.0	169.7	+10.0	97			
		+68.0	175.7	+19.0		2085		
		+70.5	178.2	−10.0		291	3588	
Apr. 30	11 14	−58.0	36.8	+19.5	194			Do.
		+14.0	108.8	−20.5		1018		
		+76.0	170.8	+10.0	97			
		+79.0	173.8	+19.0		1357	2666	
May 1	11 34	−44.5	36.9	+19.0	218			Do.
		+28.0	109.4	−20.5		921		
		+43.0	124.4	+10.0		48		
		+45.0	126.4	−19.0	24		1,211	
May 2	12 16	−30.0	37.8	+19.0	218			Do.
		+41.5	109.3	−20.5		873	1,091	
May 3	11 10	−18.0	37.2	+19.0		242		Do.
		+55.0	110.2	−20.5		873	1,115	
May 4	11 10	−80.0	321.9	+12.0		388		Do.
		−31.0	10.9	−12.0		48		
		−15.5	26.4	−18.0		36		
		−3.0	38.9	+19.0		339		
		+72.0	113.9	−20.5		873	1,684	

Mean daily area for 30 days, April, 1912.

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
May 5	11 8	−67.0	321.7	+12.0		388		U. S. Naval.
		−20.0	8.7	−12.0		36		
		−3.0	25.7	−18.0	12			
		+9.0	37.7	+19.0		315		
		+14.0	42.7	+19.0		36		
		+81.0	109.7	−20.5		339	1,126	
May 6	11 1	−53.0	322.6	+11.0		339		Do.
		+10.0	25.6	−19.0	12			
		+22.0	37.6	+18.5		242		
		+29.0	44.6	+18.5	6		599	
May 7	11 17	−39.0	323.2	+11.0		339		Do.
		+35.0	37.2	+19.0		242		
		+41.0	43.2	+19.0	6		587	
May 8	11 1	−26.0	323.1	+11.5		388		Do.
		+49.0	38.1	+19.0		194	582	
May 9	11 24	−82.0	253.7	+19.0		582		Do.
		−63.0	272.7	+20.5	48			
		−45.0	290.7	+12.0	36			
		−21.0	314.7	−18.0		85		
		−11.0	324.7	+12.0		388		
		+61.0	36.7	+19.0	145		1,284	
May 10	11 0	−75.0	247.7	−31.0		145		Do.
		−68.0	254.7	+19.0		582		
		−49.5	273.2	+20.0	16			
		−36.0	286.7	+11.0		73		
		−8.0	314.7	−18.0		145		
		+2.0	324.7	+11.0	242			
		+22.0	344.7	+10.0		48		
		+75.0	37.7	+19.0	242		1,493	
May 11	11 23	−60.0	249.3	−32.0		145		Do.
		−55.0	254.3	+19.0		582		
		−36.0	273.3	+20.0	12			
		−23.0	286.3	+11.0		121		
		+3.0	312.3	−19.0		48		
		+11.0	320.3	−18.0		97		
		+16.5	325.8	+11.0	242			
		+36.0	345.3	+10.5		48	1,295	
May 12	11 12	−50.0	246.1	+19.0		97		Do.
		−48.0	248.1	−32.0		97		
		−38.0	258.1	+19.5		533		
		−22.0	274.1	+20.0	12			
		−11.0	285.1	+11.0		48		
		−5.0	291.1	+11.0		36		
		+16.0	312.1	−19.0		36		
		+26.0	322.1	−18.0	48			
		+30.0	326.1	+11.5	218			
		+49.0	345.1	+10.5		73	1,198	
May 13	10 50	−38.0	245.1	+19.0		97		Do.
		−35.0	248.1	−32.0		73		
		−24.0	259.1	+19.0		533		
		−10.0	273.1	+20.0	12			
		+38.0	321.1	−17.0	48			
		+42.0	325.1	+12.0	291			
		+60.0	343.1	+10.0	97		1,151	
May 14	8 29	−80.0	191.2	−15.0		145		Mt. Wilson.
		−79.0	192.2	−26.0	194			
		−67.0	204.2	−19.0	48			
		−66.0	205.2	−7.0	48			
		−25.0	246.2	+20.0		73		
		−22.0	249.2	−32.0		97		
		−11.5	259.7	+19.5		582		
		+49.5	320.7	−18.0		48		
		+56.0	327.2	+12.0	242			
		+75.0	346.2	+10.0	97		1,574	
May 15	11 21	−78.0	178.4	+28.0	339			U. S. Naval.
		−78.0	178.4	+19.0	145			
		−70.0	186.4	−15.0		679		
		−59.0	197.4	+24.0	97			
		−52.0	204.4	−19.0		97		
		−49.0	207.4	−7.0	24			
		−9.0	247.4	−32.0	48			
		−9.0	247.4	+19.0		36		
		+2.0	258.4	+19.0		436		
		+70.0	326.4	+11.0	242		2,143	
May 16	13 35	−74.0	167.9	+18.5		485		Do.
		−61.0	180.9	+28.0		242		
		−61.0	180.9	+19.0	121			
		−56.0	185.9	−16.0		873		
		−46.0	195.9	−17.0		242		
		−45.0	196.9	+24.0	48			
		−41.0	200.9	+20.5	12			
		−37.0	204.9	−19.0		121		
		+7.0	248.9	−31.0		36		
		+8.0	249.9	+19.0		48		
		+17.0	258.9	+19.5		582		
		+29.0	270.9	−16.0		48	2,858	
May 17	11 15	−61.0	169.0	+18.0		436		Do.
		−49.5	180.5	+28.0		242		
		−49.5	180.5	+19.0	97			
		−44.0	186.0	−15.0		873		
		−33.0	197.0	−16.0		194		
		−32.0	198.0	+23.0	48			
		−29.5	200.5	+21.0	12			
		−23.0	207.0	−19.5		121		
		+19.0	249.0	−30.0	24			
		+29.0	259.0	+20.0		533		
		+40.0	270.0	−17.0		145	2,725	
May 18	11 4	−80.0	136.9	+10.0		242		Do.
		−49.0	167.9	+18.5		533		
		−38.0	178.9	+28.0		194		

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
May 18	11 4	−37.0	179.9	+19.0	145			U. S. Naval.
		−28.0	188.9	−15.0		1,164		
		−20.0	196.9	+23.0	12			
		−11.0	205.9	−19.0		97		
		+30.5	247.4	−30.5	24			
		+41.0	257.9	+20.0		436		
		+54.0	270.9	−17.0		291	3,138	
May 19	10 39	−87.0	116.9	−19.5	242			Do.
		−65.0	138.9	+10.5		242		
		−35.0	168.9	+18.5		388		
		−25.0	178.9	+28.5	194			
		−24.0	179.9	+19.0	145			
		−14.0	189.9	−16.0		1,164		
		−7.0	196.9	+23.0	24			
		+2.5	206.4	−19.0		97		
		+43.0	246.9	−30.5	24			
		+53.0	256.9	+20.0		339		
		+65.0	268.9	−17.0		388	3,247	
May 20	11 10	−73.0	117.3	−19.5	291			Do.
		−51.0	139.3	+11.0		242		
		−21.0	169.3	+19.5		388		
		−11.0	179.3	+28.5	194			
		−10.0	180.3	+19.0	145			
		−1.0	189.3	−16.0		1,406		
		+7.0	197.3	+23.0	24			
		+13.0	203.3	−19.0		97		
		+67.0	257.3	+20.0		339		
		+80.0	270.3	−17.0		388	3,514	
May 21	11 7	−76.0	101.1	+12.0		970		Do.
		−60.0	117.1	−20.0	436			
		−38.0	139.1	+11.0		242		
		−10.0	167.1	+19.5		242		
		+0.5	177.6	+28.5		194		
		+1.0	178.1	+19.0	145			
		+12.0	189.1	−16.5		1,745		
		+19.0	196.1	+21.0		97		
		+28.0	205.1	−19.0		48		
		+81.0	258.1	+20.0		291	4,410	
May 22	11 42	−64.0	99.6	+12.0		873		Do.
		−46.0	117.6	−20.0	533			
		−39.0	124.6	+10.5		97		
		−27.0	136.6	+10.5		73		
		−21.0	142.6	+10.0	194			
		+6.0	169.6	+19.5		218		
		+14.0	177.6	+27.0		242		
		+16.5	180.1	+19.0	145			
		+25.0	188.6	−16.0		1,309		
		+32.0	195.6	+21.0		339		
		+41.0	204.6	−18.0		48	4,071	
May 23	9 59	−53.0	98.3	+13.0		921		Mt. Wilson.
		−35.0	116.3	−20.0	582			
		−27.0	124.3	+12.0		194		
		−14.0	137.3	+12.0		48		
		−10.0	141.3	+10.0		145		
		+19.5	170.8	+20.0		145		
		+27.0	178.3	+28.0		194		
		+29.5	180.8	+19.5	121			
		+40.0	191.3	−17.0		1,212		
		+48.0	199.3	+23.0		970		
		+57.0	208.3	−19.0		97	4,629	
May 24	11 9	−62.0	75.4	+6.0	12			U. S. Naval.
		−35.0	102.4	+12.0		776		
		−20.0	117.4	−20.0	485			
		−10.0	127.4	+12.0		48		
		+5.5	142.9	+9.5	121			
		+30.0	167.4	+19.5		73		
		+40.0	177.4	+27.0		97		
		+41.5	178.9	+19.0	73			
		+51.0	188.4	−16.0		1,115		
		+59.5	196.9	+21.5		1,018	3,818	
May 25	11 9	−50.0	74.2	+6.0		48		Do.
		−21.5	102.7	+12.5		776		
		−7.5	116.7	−20.0	485			
		+19.0	143.2	+10.0	97			
		+45.0	169.2	+19.0		48		
		+51.0	175.2	+27.0		97		
		+56.0	180.2	+18.5	97			
		+59.0	183.2	+29.0	24			

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot	Area: Group	Total area for each day	Observatory
1937	h m	°	°	°				
May 25	11 9	+65.0	189.2	−17.0		1,115		U. S. Naval.
		+73.0	197.2	+21.0		970	3,757	
May 26	12 0	−37.0	73.5	+5.0		48		Do.
		−8.0	102.5	+12.0		679		
		+8.0	118.5	−20.0	485			
		+32.0	142.5	+9.5	73			
		+66.0	176.5	+27.0		97		
		+69.0	179.5	+18.5	73			
		+70.0	180.5	−16.0	97			
		+83.0	193.5	−14.0		194	1,746	
May 27	10 53	−25.0	72.9	+5.0		97		Do.
		+6.0	103.9	+12.0		679		
		+15.5	113.4	−16.0		24		
		+20.0	117.9	−20.0	485			
		+45.0	142.9	+9.5	48		1333	
May 28	11 0	−11.0	73.6	+5.0		73		Do.
		+19.0	103.6	+12.0		679		
		+33.0	117.6	−20.0	436			
		+37.0	121.6	+13.0		48		
		+59.0	143.6	+9.0	48		1284	
May 29	11 1	−85.0	346.3	+11.0		388		Do.
		+3.0	74.3	+5.0		73		
		+32.0	103.3	+12.0		679		
		+47.0	118.3	−20.0	436			
		+51.0	122.3	+12.5		97		
		+70.0	141.3	+9.0	24		1697	
May 30	8 41	−73.0	346.4	+12.0		679		Mt. Wilson.
		−4.0	55.4	+16.0		145		
		+13.0	72.4	+5.0	48			
		+44.0	103.4	+11.0		727		
		+61.0	120.4	−21.0	436			
		+65.0	124.4	+11.5		194	2229	
May 31	8 42	−57.0	349.1	+12.0		582		Do.
		+11.0	57.1	+16.0		242		
		+60.0	106.1	+10.5		824		
		+71.0	117.1	+11.0	97			
		+71.0	117.1	−22.0	436		2181	

Mean daily area for 31 days, May, 2089.

PROVISIONAL SUN-SPOT RELATIVE NUMBERS FOR MAY 1937

[Dependent alone on observations at Zurich and its station at Arosa]

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

May 1937	Relative numbers	May 1937	Relative numbers	May 1937	Relative numbers
1	89	11	*a* 99	21	*aad* 154
2	91	12	91	22	*Eac* 194
3	77	13	—	23	202
4	*ad* 56	14	*Ecd* 111	24	*a* 213
5	59	15	*ad* 140	25	171
6	46	16	*Wc* 183	26	*a* 130
7	47	17	184	27	*b* 93
8	*Ec* 50	18	*d* 158	28	71
9	*d* 68	19	158	29	*Ecd* 83
10	*Mac* 103	20	*bd* 177	30	103
				31	98

Mean, 30 days=116.9.

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 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.
d=Entrance of a large or average sized center of activity on the east limb.

AEROLOGICAL OBSERVATIONS

[Aerological Division, D. M. Little, in charge]

By LOYD A. STEVENS

Mean free-air data, based on airplane weather observations during the month of May 1937, are given in tables 1 to 3.

The mean surface temperatures for May (see ch. I) were, in general, above normal over the entire country; the departures from normal being small except over the central and northern portions of the Rocky Mountain and Western Plateau regions and along the New England coast, where, for individual stations, they amounted to between 2° and 3° C.

The mean free-air temperatures for the month up to 5 km above sea level (table 1) were slightly above normal over the greater portion of the country; negative departures being confined, for the most part, to the extreme northwest and the southeast portions of the country. The eastern area of negative departures was small at