TABLE 3.—*Solar radiation measurements, and determination of the atmospheric turbidity factor, β. Washington, D. C., February, 1932*

[Values in italics have been interpolated]

Date and solar hour angle	Solar altitude, *h*.	Air mass, *m*.	I_m	I_y	I_r	β	Blueness of sky (scale, 0-14)	Atmospheric dust particles per cubic centimeter	Notes
Feb. 1	° ′		*gr. cal.*	*gr. cal.*	*gr. cal.*				
3:46 a	13-28	4.23	0.921	0.739	*0.649*	0.085		905	
3:32 a	16-42	3.44	1.075	*.788*	0.681	.060			
3:04 a	19-15	3.02	1.127	.834	*.691*	.060			
2:30 a	23-45	2.48	1.207	.894	*.721*	.060			
2:21 a	24-50	2.37	1.181	*.901*	.724	.080			
1:42 a	28-53	2.06	1.216	*.911*	.733	.088	5		
0:07 a	33-46	1.80	1.308	.910	*.750*	.070			
0:06 p	33-47	1.79	1.331	*.910*	.752	.065			Stopped by clouds.
Feb. 5									
1:39 p	30-18	1.98	1.238	*.911*	.700	.065		611	
1:46 p	29-42	2.02	1.246	.908	*.702*	.060	5		Clouds, a. m.
Feb. 8									
2:19 p	26-53	2.21	1.222	.895	*.729*	.070	6	1,140	Clouds, a. m., now disappearing.
2:26 p	26-06	2.27	1.207	*.891*	.724	.072			
3:06 p	20-38	2.82	1.136	.848	*.681*	.058			
3:13 p	19-35	2.97	1.084	*.824*	.671	.065			
3:40 p	15-24	3.73	.994	.735	*.624*	.075			
Feb. 13									
3:17 a	20-23	2.85	1.099	*.859*	.645	.055		410	
2:43 a	25-23	2.32	1.168	*.859*	.678	.065			
2:34 a	26-34	2.23	1.203	.870	*.682*	.058			
1:18 a	34-30	1.80	1.282	*.918*	.725	.070			
1:10 a	35-00	1.76	1.288	.920	*.727*	.070			Clouds, p. m.
Feb. 16									
3:30 a	19-22	3.01	.986	*.736*	.611	.075		1,132	Much smoke over city.
2:48 a	25-24	2.32	1.115	.837	*.672*	.070			
2:41 a	26-18	2.24	1.143	*.840*	.685	.082			
2:02 a	31-08	1.94	1.157	.850	*.700*	.110	4		
1:56 a	31-56	1.88	1.164	*.853*	.697	.115			Clouds, p. m.
Feb. 18									
3:37 a	18-23	3.16	1.111	.827	*.706*	.065		284	
3:02 a	23-48	2.48	1.165	*.875*	.716	.076			
2:55 a	24-53	2.38	1.189	.888	*.725*	.074			
2:35 a	27-41	2.18	1.282	*.950*	.754	.062			
2:26 a	29-19	2.08	1.295	.946	*.768*	.065			
2:19 a	29-46	2.06	1.314	.960	*.778*	.064	5		
0:50 a	37-52	1.63	1.372	*1.003*	.778	.070			
0:44 a	38-16	1.60	1.384	1.004	*.780*	.068			
0:52 p	37-52	1.62	1.324	*.922*	.752	.080			
1:02 p	37-14	1.64	1.278	.924	*.752*	.105			
1:58 p	32-18	1.88	1.170	.875	*.702*	.105			
2:04 p	31-38	1.90	1.186	*.852*	.690	.090			Stopped by clouds.
Feb. 20									
3:51 a	16-33	3.46	1.162	*.901*	.727	.045		746	
3:46 a	17-32	3.30	1.203	*.916*	.740	.045			
3:25 a	19-16	3.01	1.239	.935	*.760*	.042			
3:01 a	24-25	2.38	1.328	.984	*.777*	.042			
2:54 a	25-36	2.31	1.350	.991	*.783*	.040			
2:45 a	26-54	2.20	1.367	*1.000*	.791	.040			
2:36 a	28-13	2.12	1.381	1.010	*.802*	.045			
2:29 a	29-05	2.05	1.382	*1.014*	.815	.052			
2:24 a	29-45	2.01	1.398	*1.014*	.815	.050	6		
0:46 a	38-46	1.60	1.453	1.009	*.798*	.045			
0:36 a	39-13	1.58	1.448	*.999*	.794	.045			
Feb. 23									
1:20 a	37-36	1.64	1.218	.891	*.716*	.115		561	Clouds, a. m.
1:14 a	38-04	1.62	1.222	*.891*	.716	.112			
3:06 p	24-44	2.38	1.093	.792	*.634*	.075			
3:11 p	23-53	2.46	1.060	*.786*	.634	.092			
3:31 p	20-28	2.85	.976	*.708*	.598	.082			Stopped by clouds.

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. J. F. Hellweg, Superintendent United States Naval Observatory. Data furnished by Naval Observatory, in cooperation with Harvard, Yerkes, Perkins, and Mount Wilson Observatories. The differences of longitude are measured from central meridian, positive west. The north latitudes are plus. Areas are corrected for foreshortening and are expressed in millionths of sun's visible hemisphere. The total area, including spots and groups, is given for each day in the last column]

Date	Eastern standard civil time		Heliographic			Area		Total area for each day
			Diff. long.	Longitude	Latitude	Spot	Group	
1932	*H*	*m*	°	°	°			
Feb. 1 (Naval Observatory)	11	4	+3.0	172.4	+13.0	77	------	------
			+70.0	239.4	−13.0	62	------	139
Feb. 3 (Naval Observatory)	13	38	+31.0	172.6	+13.5	62	------	62
Feb. 4 (Yerkes Observatory)	12	19	+43.5	172.7	+12.8	88	------	88
Feb. 5 (Naval Observatory)	10	28	+56.0	173.0	+13.0	46	------	46
Feb. 6 (Yerkes Observatory)	15	10	+70.7	171.9	+12.9	100	------	100
Feb. 7 (Naval Observatory)	11	35	No spots			------	------	------
Feb. 8 (Naval Observatory)	14	46	No spots			------	------	------
Feb. 9 (Naval Observatory)	11	34	No spots			------	------	------
Feb. 10 (Naval Observatory)	14	44	−1.0	47.8	−5.0	------	25	25
Feb. 11 (Naval Observatory)	11	3	+12.0	49.7	−6.0	------	15	15
Feb. 12 (Yerkes Observatory)	------		No spots			------	------	------
Feb. 13 (Naval Observatory)	11	0	No spots			------	------	------
Feb. 14 (Yerkes Observatory)	------		No spots			------	------	------
Feb. 15 (Naval Observatory)	11	5	No spots			------	------	------
Feb. 16 (Naval Observatory)	10	42	No spots			------	------	------
Feb. 17 (Yerkes Observatory)	------		No spots			------	------	------
Feb. 18 (Naval Observatory)	11	47	No spots			------	------	------
Feb. 19 (Naval Observatory)	14	31	No spots			------	------	------
Feb. 20 (Naval Observatory)	10	32	No spots			------	------	------
Feb. 21 (Yerkes Observatory)	------		No spots			------	------	------
Feb. 22 (Naval Observatory)	12	51	No spots			------	------	------
Feb. 23 (Naval Observatory)	10	38	−48.0	191.9	+5.0	------	31	------
			−6.0	233.9	−12.0	------	31	------
			−1.0	238.9	−15.0	------	12	74
Feb. 24 (Mount Wilson)	10	50	−33.0	193.6	+5.0	------	45	------
			+7.0	233.6	−12.0	------	17	------
			+14.0	240.6	−15.0	4	------	66
Feb. 25 (Naval Observatory)	10	49	−18.0	195.5	+5.0	------	278	278
Feb. 26 (Naval Observatory)	10	46	−4.5	195.8	+5.0	------	432	432
Feb. 27 (Naval Observatory)	11	5	+10.0	197.0	+5.0	------	463	463
Feb. 28 (Mount Wilson)	12	30	−65.0	108.0	+13.0	------	248	------
			+24.0	197.0	+4.0	------	351	599
Feb. 29 (Naval Observatory)	10	47	−52.0	108.8	+12.5	------	278	------
			+37.0	197.8	+5.5	------	309	587
Mean daily area for February	------		------	------	------	------	------	106

PROVISIONAL SUN-SPOT RELATIVE NUMBERS FOR FEBRUARY, 1932 [1]

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

February, 1932	Relative numbers	February, 1932	Relative numbers	February, 1932	Relative numbers
1	19	11	9	21	0
2	16	12	7	22	0
3	17	13	0	23	Ec 18
4	8	14	0	24	23
5	8	15	0	25	26
6	8	16	0	26	26
7	7	17	0	27	d 39
8	7	18	0	28	31
9	------	19	0	29	29
10	9	20	0		

Mean: 28 days=11.0.

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

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