TABLE 1.—*Parts per million*

Specimen	Date, 1934–35	Depth of rain or snow	Chlorine	Free ammonia	Alf. ammonia	N in nitrate	N in nitrite	Sulphate, SO_3
		Inches						
1	June 23	[1] 0.2	2.13	0.04	0.32	0.8	0.00	0.00
2	June 25	.4	2.84	.04	.11	.6	.00	.00
3	Sept. 28	[1] .12	3.55	.72	.28	.4	.01	.00
4	Oct. 20	1.2	3.55	.36	.24	.7	.02	.016
5	Nov. 3	1.75	3.55	.16	.20	.1	.02	.00
6	Nov. 18	1.15	1.42	.08	.03	.13	.00	.013
7	Nov. 20	1.00	2.13	.16	.112	.10	.02	.009
8	Nov. 22	.95	1.42	.08	.20	.084	.031	.009
9	Nov. 22	[1] .08	4.97	.272	.48	.47	.033	.009
10	Nov. 26	[1] .20	2.13	.04	.72	.10	.019	.011
11	Nov. 28	[1] 1.00	7.10	.02	.16	.10	.014	.007
12	Nov. 30	[1] 1.00 [2] .5	2.13	.04	.20	.00	.003	.0009
13	Dec. 3	[1] 4.00	1.42	.00	.20	.05	.006	.0005
14	Dec. 6	[2] 4.00	1.42	.08	.56	.03	.012	.0085
15	Dec. 19	[2] 2.00	2.84	.24	.40	.0105	.01	.005
16	Dec. 26	[2] 2.00	.00	.56	.80	.117	.029	.022
17	Jan. 9	[1] .4	3.6	.112	.72	.05	.012	.0103
18	Jan. 10	[2] 2.00	2.13	.056	.76	.11	.015	.009
19	Jan. 12	.35	2.13	.112	.48	.09	.02	.005
20	Jan. 16	[1] .75	2.13	.28	.28	.015	.00	.010
21	Jan. 19	[1] .25	2.84	.04	.56	.100	.002	.026
22	Jan. 20	[2] 3.00	4.97	.056	.24	.200	.003	.005
23	Feb. 8	[2] 3.00	2.13	.32	.04	.110	.002	.007
24	Feb. 15	[1] .4	4.97	.112	.72	.10	.061	.12
25	Feb. 22	[2] 2.00	2.13	.28	.72	.120	.00	.015
26	Feb. 25	[2] 4.00	2.84	.28	.136	.05	.00	.014
27	Mar. 4	[1] .33	3.55	.20	.56	.085	.015	.00
28	Mar. 7	[1] 4.00	3.55	.36	.36	.05	.00	.024
29	Mar. 10	[1] .25	2.13	.04	.72	.05	.015	.0103
30	Mar. 16	[2] 2.00	3.55	.136	.112	.02	.004	.00
31	Mar. 24	[1] .25	4.26	.02	1.98	.2	.028	.14
32	Mar. 27	[2] 3.00	2.84	.16	.32	.0475	.0075	.007
33	Apr. 11	[1] 1.5	3.55	.20	.36	.05	.008	.009
34	Apr. 22	[1] .4	3.55	.96	.24	.09	.03	.015
35	May 1	[1] 1.1	3.55	.56	.20	.10	1.35	.00
36	May 3	[1] .9	2.13	.16	.056	.045	.009	.00
37	May 13	[1] .55	4.26	.40	.112	.05	.01	.009
38	May 19	[1] .45	5.68	.28	.112	.105	.017	.0086
39	May 28	[1] 2.75	3.55	.08	.04	.10	.005	.007
40	June 2	[1] 1.00	3.55	.112	.056	.10	.005	.00

[1] Rain. [2] Snow.

TABLE 2.—*Pounds per acre*

Specimen	Date, 1934–35	Depth of rain or snow	Chlorine	Free ammonia	Alf. ammonia	N in nitrate	N in nitrite	Sulphate, SO_3
		Inches						
1	June 23	[1] 0.2	0.096	0.0019	0.0144	0.036	0.00	0.00
2	June 25	[1] .4	.26	.0036	.0099	.0054	.00	.00
3	Sept. 28	[1] .12	.096	.02	.0075	.011	.0003	.00
4	Oct. 20	[1] 1.2	.97	.098	.065	.19	.005	.0044
5	Nov. 3	[1] 1.75	1.29	.06	.078	.04	.008	.00
6	Nov. 18	1.15	.37	.02	.008	.034	.00	.0034
7	Nov. 20	1.00	.50	.04	.026	.02	.005	.002
8	Nov. 22	.95	.31	.02	.043	.02	.007	.002
9	Nov. 22	[1] .08	.09	.006	.009	.042	-------	.002
10	Nov. 26	[1] .20	.095	.0018	.032	.0045	.0009	.0025
11	Nov. 28	[1] 1	1.61	.0045	.036	.044	.032	.0016
12	Nov. 30	[1] 1.5	.72	.0136	.068	.00	.001	.0031
13	Dec. 3	[2] 6.4	.13	.006	.018	.0045	.0005	.0005
14	Dec. 6	[2] 4	.11	.006	.043	.0009	-------	.0006
15	Dec. 19	[2] 2	.11	.009	.015	.0004	.0004	.0002
16	Dec. 26	[2] 2	.00	.0213	.0304	.0196	.0011	.0008
17	Jan. 9	[1] .4	.33	.012	.0655	.0045	.0011	.0009
18	Jan. 10	[2] 2	.082	.002	.029	.004	.0006	.0003
19	Jan. 12	[1] .35	.17	.009	.038	.0072	.0016	.0004
20	Jan. 16	[1] .75	.36	.048	.048	.0026	.00	.0017
21	Jan. 19	[1] .25	.162	.0023	.032	.0057	.00011	.0015
22	Jan. 20	[2] 3	.283	.003	.014	.0114	.00015	.0003
23	Feb. 8	[2] 3	.125	.019	.0024	.0065	.0014	.0004
24	Feb. 15	[1] .4	.45	.0102	.0655	.0090	.0055	.0011
25	Feb. 22	[1] 2	.081	.011	.027	.0045	.00	.0057
26	Feb. 25	[1] 4	.22	.021	.0106	.004	.00	.0011
27	Mar. 4	[1] .33	.27	.015	.043	.0064	.0011	.00
28	Mar. 7	[2] 4	.202	.021	.21	.0028	.00	.0018
29	Mar. 10	[1] .25	.121	.0022	.041	.003	.0009	.0006
30	Mar. 16	[2] 2	.135	.005	.0042	.0007	.0002	.00
31	Mar. 24	[1] .25	.243	.0409	.112	.0104	.0016	.008
32	Mar. 27	[1] .3	.162	.0091	.018	.0027	.0004	.0004
33	Apr. 11	[1] 1.5	1.207	.068	.1088	.017	.0027	.0031
34	Apr. 22	[1] .4	.390	.1005	.026	.01	.0033	.0017
35	May 1	[1] 1.1	.9	.14	.05	.025	.34	.00
36	May 3	[1] .9	.43	.032	.0112	.009	.0018	.00
37	May 13	[1] .55	.53	.05	.014	.0063	.0013	.001
38	May 19	[1] .45	.568	.028	.0112	.0105	.0017	.00086
39	May 28	[1] 2.75	1.86	.042	.02	.052	.0025	.00037
40	June 2	[1] 1	.816	.0257	.0124	.023	.00115	.00

[1] Rain. [2] Snow.

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SOLAR OBSERVATIONS

SOLAR RADIATION MEASUREMENTS DURING MAY 1935

By IRVING F. HAND, *Assistant in Solar Radiation Investigations*

For a description of instruments employed and their exposures, the reader is referred to the January 1935 REVIEW, page 24.

Beginning with this issue summaries of total solar and sky radiation values obtained at San Juan, Puerto Rico (lat. 18° 28′ N., long. 66° 06′ W.) will be included in table 2.

Table 1 shows that solar radiation intensities averaged above normal at all three Weather Bureau stations.

Table 2 shows an excess in total solar and sky radiation at all stations except Washington, Madison, Lincoln, Twin Falls, and Riverside. The depletion in radiation at the first three named stations is due in large part to dust storms; Lincoln, Nebr., shows the greatest departure from normal ever recorded for that station.

Polarization measurements obtained on 4 days at Washington give a mean of 60 percent with a maximum of 63 percent on the 18th. At Madison observations made on 5 days give a mean of 59 percent with a maximum of 70 percent on the 24th. All of these values are above the May normals for the two stations.

TABLE 1.—*Solar radiation intensities during May 1935*

[Gram-calories per minute per square centimeter of normal surface]

WASHINGTON, D. C.

Date	Sun's zenith distance										
	8 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noon
	75th mer. time	Air mass									Local mean solar time
		A. M.					P. M.				
	e	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e
	mm	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm*
Mar. 1	3.81				1.20						3.99
May 8	5.56			1.01	1.21	1.42					6.27
May 18	4.37	0.81	0.89	1.05	1.26	1.42					3.99
May 22	3.81	.59	.78	.92	1.15	1.41					4.57
May 25	6.76				.75	1.27					5.36
May 27	9.47				.92	1.35					9.47
May 28	9.83				.81	1.25					11.38
May 29	11.38					1.27					
Means		(.70)	(.84)	.99	1.04	1.34					
Departures		+.07	+.13	+.16	+.04	+.08					

* Extrapolated.