Scientific American. New York. v. 83. 1927.

Dunlap, Orrin E., Jr. Does static come from the sun? Strange "messages" may tell the secrets of fading and other radio mysteries. p. 318–319. (May.)

Wood, B. Francis. Weather map by radio. p. 411–412. (June.)

Tycos-Rochester. Rochester, N. Y. v. 17. April, 1927.

Blair, Thomas Arthur. Weather cycles. p. 61–62.

The father of the American weather map. [Abbe, Cleveland.] p. 63. [With portrait.]

Laskowski, B. R. Ground temperatures vs. roof temperatures. p. 68–70.

Maddox, William J. Tracking hurricanes to their lair. p. 45–47.

Measurements in cloudland. p. 65.

Moran, C. "John Smith vs. Jack Frost." p. 53–55.

The mystery of ice-fringes. p. 73.

Pearson, S. K., Jr. "Hurricanes existed when Columbus discovered America and will develop in future." p. 49–50.

Professor William Ferrel. p. 64. [With portrait.]

Simpson, A. G. The lumber industry discovers relative humidity. p. 74–75.

Simson, A. Gael. Static as barometer to forest fires. p. 60–61.

"Snow-break" in woods and forests. p. 73.

The table cloth of Table mountain. p. 66.

Talman, C[harles] F[itzhugh]. Picturing the weather day by day. The remarkable government machinery that produces the daily weather map. p. 51–52; 77.

The tower of the winds. p. 66.

Van Cleef, Eugene. A hurricane near the Grand Banks. p. 48; 77.

White, William J., Jr. The new wonders of our sun. Exiles on lonely desert mountain to study vast power plant of the sky. p. 56–59. [Repr. from Popular science monthly.]

U. S. Hydrographic office. Pilot chart of the north Pacific ocean. June, 1927.

Hurd, Willis Edwin. Tropical storms of the eastern north Pacific ocean.

Wetter. Berlin. 44. Jahrgang. 1927.

Fischer, Rudolf. Sehr milde und sehr kalte November seit 1826 in Frankfurt a. M. p. 39–41. (Februar.)

Kassner, C. Babylonische und assyrische Wetterregeln. p. 47–48. (Februar.)

Kassner, C. Schneebeseitigung auf dem Fall River Hochpass in Colorado. p. 46–47. (Februar.) [Trans. from Bull. Amer. met. soc.]

Myrbach, Otto. Der Temperaturverlauf zu Wien im Winter 1925/26 in Zusammenhang mit Sonnenfleckenkulminationen und Mondphase. p. 31–37. (Februar); p. 55–56. (Marz.); p. 74–78. (April.)

Voigts, Heinrich. Meteorologie und Wetterkunde in den physikalischen Lehrbüchern für höhere Schulen. p. 25–30. (Februar.); p. 49–55. (März.)

Beck, F. X. Zur Praxis des Flugwetterzettels. p. 72. (März.)

Gockel, A. Vom Wettersinn der Wetterkranken. p. 69–70. (März.)

Holtzhey, R. Die Bildung einer Gegensonne. p. 70. (März)

Holtzhey, R. Das Schwirren von Telegraphendrähten. p. 70–71. (März.)

Naegler, W. Die wärmste und kälteste Gegend Sachsens. "Sächsisches Nizza"—"Sächsisches Sibirien." p. 68–69. (März.)

Diesner, P. Weitere Bemerkungen über den Geltungsbereich klimatologischer Stationen. p. 93–95. (April.)

Der Frühsommer 1926. p. 78–85. (April.)

Gleichzeitiges Auftreten von Gewitter und Nordlicht am 8. September 1926. p. 85–89. (April.)

Noth, H. H. v. Ficker: Maskierte Kälteeinbrüche. p. 91–93. (April.)

M. Alfred de Quervain. p. 73–75. (April.) [Obituary.]

SOLAR OBSERVATIONS

SOLAR AND SKY RADIATION MEASUREMENTS DURING APRIL, 1927

By HERBERT H. KIMBALL, Solar Radiation Investigations

For a description of instruments and exposures and an account of the method of obtaining and reducing the measurements, the reader is referred to the REVIEW for January, 1924, **52**:42, January, 1925, **53**:29, and July 1925, **53**:318.

From Table 1 it is seen that solar radiation intensities averaged above the April normals at all three stations.

Table 2 shows a deficiency in the total solar radiation received on a horizontal surface from the sun and sky at the three stations for which normals have been determined, due to unusual cloudy conditions.

Skylight polarization measurments made at Madison on three days give a mean of 62 per cent, with a maximum of 65 per cent on the 3d. These are close to normal values for April at Madison. At Washington, measurements made on four days give a mean of 54 per cent, with a maximum of 60 per cent on the 11th. These are slightly below the corresponding averages for April at Washington.

TABLE 1.—*Solar radiation intensities during April, 1927*

Washington, D. C.

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

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] 1.0	2.0	3.0	4.0	5.0	e.
	mm.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm.*
Apr. 6	6.27						1.02	0.68	0.57		6.50
Apr. 7	3.63	0.73	0.86	1.05	1.13	1.48	1.15				4.37
Apr. 11	2.62	0.86	1.01	1.11	1.32	1.52	1.29	1.09	1.00	0.86	2.49
Apr. 12	4.75	0.85	0.89	1.02	1.18	1.43					4.17
Apr. 14	2.87			1.14	1.30	1.44	1.25	1.08			3.63
Apr. 20	14.10					1.29	0.87				12.68
Apr. 23	3.00	0.77	0.92	1.06	1.24	1.39					3.30
Apr. 25	4.37	0.67	0.80	0.95	1.16	1.42					3.99
Apr. 28	3.81	0.66		0.98	1.19	1.49	1.19	0.91			4.57
Means		**0.76**	**0.90**	**1.04**	**1.22**	**1.43**	**1.13**	**0.94**	**(0.78)**	**(0.86)**	
Departures		**+0.05**	**+0.14**	**+0.15**	**+0.14**	**+0.07**	**+0.03**	**+0.03**	**+0.03**	**+0.24**	

Madison, Wis.

Apr. 5	5.16				1.30	1.53	1.29				5.56
Apr. 6	5.79					1.47	1.30				5.16
Apr. 20	3.15				1.29						3.15
Apr. 23	3.15			1.14	1.26	1.47					2.06
Apr. 27	6.27				1.11	1.31					6.50
Apr. 30	4.57				1.22	1.45	1.18				5.16
Means				**(1.14)**	**1.24**	**1.45**	**1.26**				
Departures				**+0.05**	**+0.02**	**+0.03**	**+0.04**				

Lincoln, Nebr.

Apr. 4	8.18					1.55	1.38	1.23	1.06	0.92	7.29
Apr. 6	5.36				1.13						5.16
Apr. 17	7.57	0.76	0.88	1.04	1.22	1.45					7.04
Apr. 18	8.48			0.90	1.06						13.13
Apr. 19	11.38						1.32	1.15	1.00		5.56
Apr. 21	2.87		1.05	1.20	1.37	1.57					2.26
Apr. 22	3.30	0.86	0.93	1.08	1.31	1.54					3.00
Apr. 25	6.27		0.91	1.06	1.24	1.43					8.18
Apr. 26	7.87			0.91	1.23		1.21				6.27
Apr. 27	5.79		0.60	0.83	1.05						6.27
Apr. 29	7.87					1.47	1.16	0.93	0.79	0.69	5.56
Means		**(0.81)**	**0.87**	**1.00**	**1.20**	**1.50**	**1.27**	**1.10**	**0.95**	**(0.80)**	
Departures		**+0.07**	**+0.04**	**+0.02**	**−0.01**	**+0.05**	**+0.09**	**+0.12**	**+0.11**	**+0.09**	

[1] Extrapolated.

TABLE 2.—*Solar and sky radiation received on a horizontal surface*

[Gram-calories per square centimeter of horizontal surface]

Week beginning—	Average daily radiation						Average daily departure from normal		
	Washington	Madison	Lincoln	Chicago	New York	Twin Falls	Washington	Madison	Lincoln
1927									
Apr. 2	259	315	344	383	283	497	−122	−67	−73
Apr. 9	430	373	155	284	423	467	+19	−28	−264
Apr. 16	402	326	438	271	278	536	−25	−78	−10
Apr. 23	404	378	485	333	373	648	−24	−51	+17
Deficiency since first of year on Apr. 29							−4,830	−2,975	−5,698

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. Edwin T. Pollock, Superintendent U. S. Naval Observatory]

[Data furnished by Naval Observatory, in cooperation with Harvard, Yerkes, and Mount Wilson observatories]

Date	Eastern standard civil time	Heliographic		Area [1]	
		Longitude	Latitude	Spot	Group
1927	*h. m.*	°	°		
Mar. 9 (Yerkes)	12 10	+6.9	−14.5	73	
Mar. 30 (Yerkes)	12 40	−62.3	+16.0	97	
Apr. 3 (Naval Observatory)	14 3	−56.0	+14.0	93	
		−43.0	+13.5		710
		−38.0	−24.0	62	
		−10.5	−15.0		20
		−8.5	+17.5	46	
		−4.0	−13.0		40
		+54.0	+15.5		62
		+61.5	−22.5		340
Apr. 4 (Mount Wilson)	14 25	−41.0	+14.0	97	
		−41.0	+10.0	1	
		−27.5	+12.5		724
		−25.0	−24.5	20	
		−10.0	−16.0		2
		+6.0	+16.0	71	
		+7.0	−8.0		6
		+7.0	−14.0		6
		+12.0	+22.0		10
		+46.0	−14.0		4
		+70.0	+14.5	3	
		+73.0	−23.0		473
Apr. 5 (Yerkes)	9 56	−80.0	−15.5	485	
		−30.5	+13.5	75	
		−24.0	+15.0	75	
		−19.0	+13.0	100	
		−15.0	+11.0	120	
		+16.0	+16.0	95	
		+25.0	+22.0	50	
		+79.0	−29.0	480	
Apr. 6 (Naval Observatory)	11 46	−82.0	−17.0		247
		−69.0	−13.5		278
		−16.0	+14.5	62	
		−5.0	+14.0		463
		+30.0	+16.5	42	
		+37.0	+22.0		62
		+71.0	−13.5		123
Apr. 7 (Naval Observatory)	11 47	−68.0	−17.0		278
		−55.0	−14.0		278
		+7.0	+12.5		463
		+42.5	+16.5	31	
		+50.0	+22.0		46
		+85.0	−15.0	123	
Apr. 10 (Naval Observatory)	12 7	−79.0	+30.0	216	
		−78.0	−7.0		247
		−45.0	−22.5		46
		−38.5	+13.5		123
		−26.0	−17.5		278
		−14.0	−14.0		185
		+34.5	+13.5		31
		+51.0	+12.5		432
		+72.0	+5.0		62
Apr. 11 (Naval Observatory)	11 51	−80.0	+11.0		309
		−72.0	+33.0		741
		−69.0	−7.0		46
		−68.0	−14.5		62
		−60.5	−7.5		93
		−29.0	−21.5		46
		−25.0	+14.0		108
		−20.0	−18.5	9	
		−10.5	−18.0		278
		−0.5	−13.0		139
		+63.0	+13.0		370
Apr. 12 (Naval Observatory)	11 46	−67.0	+11.5		216
		−58.0	+32.5		216
		−57.0	−5.5	25	
		−53.0	−15.0		139
		−47.5	−7.5		31
		−15.0	−21.5		31
		−12.5	+13.5		77
		−0.5	−18.0		370
		+12.5	−13.0		139
		+79.0	+13.0		278
Apr. 14 (Naval Observatory)	11 49	−49.5	+18.0		31
		−42.0	+11.0		77
		−30.5	+32.5		123
		−27.5	−15.0		185
		+11.5	−21.0		15
		+12.5	+14.5		123
		+21.5	+14.5		31
		+24.0	−19.0		432
		+39.5	−13.0		46

[1] Areas are corrected for foreshortening and are expressed in millionths of sun's visible hemisphere.