Wendler, August.
Das Problem der technischen Wetterbeeinflussung. Hamburg. 1927. 107 p. figs. 23 cm. (Probleme der kosmischen Physik. no. 9.)

Wichtigste Ergebnisse der meteorologischen Beobachtungen in Hessen in dem zehnjährigen Zeitraum 1911–1920 und in dem zwanzigjährigen Zeitraum 1901–1920. Darmstadt. 1926. 16 p. plates. 34 cm. (Anhang Deutschen met. Jahrbuch. Hessen. 1919 und 1920.)

Wiese, W.
Vergleich der im Sommer 1925 beobachteten Eisverhältnisse im Barents- und Karischen Meer mit den vorhergesagten. p. 301-306. diagr. 25½ cm. [Abstract in German. Title and text also in Russian.]

RECENT PAPERS BEARING ON METEOROLOGY

The following titles have been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

American journal of science. New Haven. (5) v. 13. February, 1927.
Schuchert, Charles. Winters in the Upper Devonian of New York and Acadia. p. 123–132.

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Georgi, J., & Rodewald, M. Auswertung zweier Flugzeugaufstiege zur Diagnose der Wetterlage. p. 6–8.
Markgraf, Hans. Bericht über Messungen des luftelektrischen Spannungsgefälles bei Hamburg 1925. p. 9–12.
Meyer, H. Der Zyklon in Veracruz am 28. September 1926. p. 25–26.
Müller, W. Der Habana-Zyklon vom 20. Oktober 1926. p. 26–27.
Perlewitz, P., Wittenbecher, J., & Rodewald, M. Die zweite hamburgische wissenschaftliche Freiballonfahrt. p. 1–6.
Ullrich, W. Über meteorologische Beobachtungen an Bord und deren Verwertung bei der Deutschen Seewarte. p. 12–16.

British astronomical association. Journal. London. v. 37. February, 1927.
Burns, Gavin J. The auroral arch. p. 158–160.

Deutsche Seewarte. Aus dem Archiv. Hamburg. 44. Jahrgang, nr. 1. 1926.
Gans, Margarete. Das Hudsonmeer. [Includes discussion of climate & climatic tables.]

Electrical world. New York. v. 89. April 9, 1927.
Millar, Preston S., & Gray, S. McK. Visibility in street lighting. New test object described. p. 760–761.

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Entenman, Paul M. Flood danger in the Colorado delta—channel construction the only safeguard. p. 532–534.

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Faucher, D., & Rougetot, E. Contribution à l'étude du mistral. p. 614–615. (7 mars.)
Mathias, E. Contribution à l'étude de la matière fulminante: Examples de decomposition spontanée. p. 565–568. (7 mars.)
Idrac, P., & Bureau, R. Expériences sur la propagation des ondes radiotélégraphiques en altitude. p. 691–692. (14 mars.)
Mathias, E. Contribution à l'étude de la matière fulminante. Celle-ci est-elle chaude ou froide? p. 653–655. (14 mars.)

Geografski vestnik. Ljubljana. 1926.
Rubić, Ivo. Padaline u Splitu. p. 17–22. (no. 1.); p.72–81. (no. 2/3.)

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Henry, Philip W. The Great Lakes-St. Lawrence waterway. p. 258–277. [Discusses fluctuations of water level in the Great Lakes.]

Ibérica. Tortosa. Año 9. 7 enero 1922.
N[avarro], M[anuel] Maria S. El professor Alfredo de Quervain. p. 165–166. [Obituary.]

Institut hydrologique de Russie. Bulletin. Leningrad. no. 17. 1926.
Wiese, W. Über die Vorhersage der Zeit des Aufganges der Newa. p. 13–24. [Russian text with German abstract, p. 23–24.]

Meteorological magazine. London. v. 61. March, 1927.
Brooks, C. E. P. An early essay in co-operative meteorology: the great storm of 1703. p. 31–35.
Fairgrieve, J. London fog, January 20th, 1927. p. 29–31. [With chart showing gradual advance of the fog in the city from 9 a. m. to 4 p. m.]
Lieutenant-Colonel Henry Mellish. p. 46–47. [Obituary.]

Météorologie. Paris. n. s. t. 3. 1927.
Delcambre. Une application imprévue de la météorologie. Conclusion d'un débat littéraire. p. 21–22. (Janvier.)
Hesselberg, Th. Ernst G. Calwagen. p. 15–17. (Janvier.) [Obituary]
Mellot, Arsène. Contribution à l'étude de la climatologie de la France. p. 22–26. (Janvier.) [French weather records of 17th, 18th & 19th centuries.]
Pérès, B. Détermination d'une région des côtes françaises de la Manche et de l'Atlantique le plus favorable à une prise de films cinématographiques en juin et juillet. p. 64–67. (Février.)
Raymond, G. Altération des styles en aluminium des instruments enregistreurs dans les régions maritimes. p. 63–64. (Février.)
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Chapman, S. The sun, the earth's atmosphere, and radio transmission. p. 428–429.

Nature. Paris. 1 avril 1927.
Cabanès. La "grande expérience" de Pascal: Descartes ou Pascal? p. 321–322.

Physikaliche Zeitschrift. Leipzig. 28. Jahrgang, no. 5. 1927.
Dejmek, Joh. Zur Theorie der Wirbel. p. 196–198.
Maurer, H. Die Stromrichtung in Blitzen. p. 211–212.

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Rittich, P. A. Comment observer "les systèmes de nuages." p. 3–16. [In Polish.]

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Rossi, G. Osservazioni sulla scintillazione delle stelle esequite nel R. Osservatorio del Campidoglio. p. 161–164.

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Bauer, Louis A. Cosmic aspects of atmospheric electricity. p. 314–316.

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Mendirichaga, Hernández. La ceniza de los volcanes en climatologia. p. 12–16.

Terrestrial magnetism and atmospheric electricity. Baltimore. v. 32. March, 1927.
Cairns, J. E. I. A statistical study of the effects of the atmospheric-electric elements on broadcast reception. p. 11–16.
Tuve, M. A., & Huff, C. On the use of a radioactive collector for potential-gradient measurements. p. 17–25.
Wait, G. R. Preliminary note on the effect of dust, smoke, and relative humidity upon the potential gradient and the positive and negative conductivities of the atmosphere. p. 31–35.

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Hurd, Willis Edwin. The northers of the Central American region.

SOLAR OBSERVATIONS

SOLAR AND SKY RADIATION MEASUREMENTS DURING MARCH, 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 close to normal at Washington, D. C., and Madison, Wis., and slightly above normal at Lincoln, Nebr. At Lincoln, at 10:08 a. m. of the 21st a measured intensity of 1.54 gram calories per minute per square centimeter is only 1 per cent less than the highest midday intensity ever measured at that station in March.

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.

Skylight polarization measurements made at Madison on 16 days give a mean of 61 per cent with a maximum of 69 per cent on the 1st. These are close to normal values for March at Madison. At Washington, measurements made on 11 days give a mean of 54 per cent with a maximum of 68 per cent on the 4th. The maximum is above and the mean is below the corresponding averages for March at Washington.

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

[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. 3	2.49		1.00	1.14	1.29						1.78
4	2.06	0.95	1.06	1.21	1.37	1.55	1.20	1.04	0.94	0.80	1.88
5	2.87	0.91	1.04	1.18	1.32	1.48					2.62
10	3.30	0.71	0.83	0.97	1.11	1.40	0.97	0.74	0.62		3.00
11	4.17						1.21				4.75
15	5.79		0.59	0.76	0.97						6.50
16	6.27	0.51	0.66	0.83	1.10	1.37	1.26	1.02	0.79	0.61	7.04
17	7.29		0.65	0.82	0.95						9.83
25	3.81				0.88	1.12					3.99
29	3.63		0.58	0.69	0.96						3.81
Means			0.77	0.80	0.95	1.11	1.38	1.16	0.93	0.78	(0.70)
Departures			+0.06	±0.00	+0.01	−0.04	−0.05	+0.03	−0.01	−0.02	+0.01

MADISON, WIS.

Mar. 2	1.60			1.29	1.42	1.56	1.43				1.88
3	2.06	1.13	1.20	1.31	1.43	1.57	1.45				1.78
8	3.63		1.07	1.18	1.36	1.57					3.15
9	3.63				1.18	1.54					4.37
14	5.56						1.22				5.56
15	4.75				1.11		1.11				6.76
17	4.57				1.31						3.99
22	3.00		1.05	1.16							3.00
28	3.15				1.19						2.49
30	4.57				1.20	1.48					4.57
Means		(1.13)	1.11	1.24	1.28	1.54	1.30				
Departures		+0.14	+0.07	+0.06	−0.04		±0.00				

LINCOLN, NEBR.

Mar. 2	2.36			1.17	1.37	1.53	1.20	1.11	1.01		1.88
3	1.96	0.84	0.96	1.14	1.36						2.36
4	3.15	0.53	0.66	0.83	1.05	1.29					4.37
7	4.37					1.59		1.26	1.11	0.97	3.45
8	3.63	0.85	1.00	1.19	1.38	1.61	1.32	1.15	1.00	0.87	3.30
9	3.99				1.26						4.37
14	4.37	0.75			1.19		1.36	1.17	1.05	0.94	4.95
21	3.63			1.23	1.43	1.65	1.39	1.13	0.75		2.62
26	2.87		1.05	1.20	1.36	1.54					2.87
Means		0.74	0.92	1.13	1.30	1.54	1.32	1.16	0.98	0.93	
Departures		−0.12	−0.03	+0.03	+0.01		+0.03	+0.07	+0.03	+0.10	

* 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
	cal.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
Feb. 26	302	284	322	228	304		+8	+14	−21
Mar. 5	319	236	281	199	243		+9	−42	−66
12	333	313	298	210	244		−4	+7	−79
19	225	205	328	136	240	*499	−132	−105	−82
26	169	322	255	205	217	371	−178	−17	−157
Deficiency since first of year on Apr. 1							−3,766	−1,407	−3,338

*Four-day mean.

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 *	
		Longitude	Latitude	Spot	Group
1927	*h. m.*	°	°		
Mar. 1 (Naval Observatory)	11 31	−44.0	+23.0		62
		−13.5	−18.0	123	
		+40.5	+13.5		93
		+44.5	−23.0		31
Mar. 2 (Harvard)	12 20	−27.0	+27.0		212
		+2.0	−15.0	242	
Mar. 3 (Naval Observatory)	11 44	−72.0	−13.0	185	
		−71.0	+10.0		62
		−17.0	+23.5		93
		+13.0	−17.5	123	
		+28.0	−18.0		46
		+62.0	+13.5		31
Mar. 4 (Naval Observatory)	11 48	−59.5	−13.5	247	
		−59.0	+10.0	62	
		−3.0	+23.5		93
		+25.5	−17.5		154
		+41.5	−17.5		62
Mar. 5 (Naval Observatory)	11 50	−49.0	−20.0		62
		−47.0	−13.0	185	
		−45.5	+10.0	31	
		+12.5	+22.0		77
		+39.0	−18.0	108	
		+54.0	−17.5		123
Mar. 6 (Naval Observatory)	11 42	−38.0	−20.5	46	
		−32.5	−13.5	154	
		−32.0	+19.5		31
		−31.5	+10.0	31	
		+20.0	+24.5	31	
		+28.0	+21.5		93
		+52.0	−18.0	123	
		+71.0	−17.0	62	
Mar. 7 (Naval Observatory)	13 40	−22.0	−22.5		62
		−19.5	+18.0		46
		−19.0	−15.5	154	
		−18.5	+10.0		31
		+33.0	+27.0		31
		+42.5	+22.0		108
		+66.0	−15.5	93	
Mar. 8 (Naval Observatory)	11 50	−24.0	+10.0		10
		−11.0	−22.0		62
		−7.5	−13.5	154	
		−7.0	+19.0		46
		−5.0	+10.0	42	
		+47.0	+26.0		31
		+56.0	+22.0		62
		+62.5	−19.0	37	
		+70.0	+7.5		123
		+77.5	−17.5	123	
Mar. 10 (Naval Observatory)	11 49	−34.0	−20.0		15
		−32.5	+16.5		108
		+18.5	−21.0		31
		+19.0	−14.5	139	
		+77.5	−21.0		93
Mar. 11 (Naval Observatory)	11 46	−78.5	−9.5	154	
		−19.5	−19.5		62
		−19.0	+15.5		262
		+29.0	−21.0		62
		+31.5	−14.5	154	
Mar. 12 (Naval Observatory)	11 42	−65.0	−9.5	154	
		−5.0	+15.5		216
		−5.0	−19.0		46
		+44.5	−14.0		139
Mar. 13 (Naval Observatory)	11 41	−78.0	+17.5	123	
		−71.5	+31.0	154	
		−52.0	−9.5	185	
		+7.5	+15.5		154
		+7.5	−18.0		15
		+50.5	+17.5		18
		+59.0	−12.5	139	
		+59.5	−18.5		31
Mar. 14 (Harvard)	11 34	−69.0	−9.0		152
		−60.0	+18.0	136	
		−55.0	+32.0		409
		−34.0	−7.0	152	
		+29.0	+17.0		76
		+75.0	−10.0	182	
Mar. 15 (Naval Observatory)	11 45	−64.0	−9.0		247
		−57.0	+35.0		679
		−49.5	+18.0	123	
		−45.0	+31.0	154	
		−26.0	−9.5	154	
		−24.0	+19.5		31
		+37.5	+15.5		123
		+85.0	−12.5	154	
Mar. 16 (Naval Observatory)	11 46	−55.5	−11.0		31
		−47.0	−8.0		123
		−44.0	+35.0		710
		−37.0	+18.0	123	
		−31.0	+31.0	154	
		−12.0	−9.0	139	
		−9.5	+19.0		123
		+51.0	+15.5		93

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