BIBLIOGRAPHY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Meteorologist in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Baur, Franz.
Die Sonnenstrahlung an der Küste, im Tiefland, Mittelgebirge und Hochgebirge Mitteleuropas. n. p. [1922.] p. 2476–2477. diagr. 30½ cm. (Extr.: Klinische Wochenschrift. 1 Jahrg. nr. 50. 9. Dez., 1922.)

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Festskrift tillägnad Professor Otto Pettersson, den 12 Februari, 1923. [Helsingfors. 1923.] 114 p. illus. port. 26 cm.

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Lehrbuch der Meteorologie. 4te umgearb. Aufl. Lief. 1–2. Leipzig. [1923] illus. plates. 27 cm.

Houghten, F. C., & Yagloglou, C. P.
Determining equal comfort lines. Laboratory tests conducted give results for still air conditions. 12 p. illus. charts. 23 cm. (Extr.: Journ. Amer. soc. heat.-vent. engin. v. 29, March, 1923.).

Japan. Hydrographic department.
Isobaric charts of the North Pacific ocean. no. 1. January to March, 1919. Tokyo. 1923. 29 charts. 55 cm.

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Wegener, Kurt.
Vom Fliegen. München. 1922. iv, 104 p. illus. 21½ cm.

RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. F. TALMAN, Meteorologist in Charge of Library.

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 meteorological society. Bulletin. Worcester, Mass., v. 4. April, 1923.
Brooks, Charles F. The extraordinary meteorological situation in the north Atlantic region. p. 49–50.
Brooks, Charles F. The nature of clouds. p. 51–54. [Abstract.]
Hartwell, F. E. The climate and weather of Vermont. p. 58–59. [Abstract.]
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Hunter, Herbert C. Fifty years of the Monthly weather review. p. 61–62.
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Georgii, Walter. Beziehungen zwischen den Monsunregen Nordindiens und der Winterwitterung von Europa. p. 16–19. (Jan.)
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Omori, F. Seismographic observations in Tokyo of the earthquakes with sound. p. 33–63.
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SOLAR OBSERVATIONS.

SOLAR AND SKY RADIATION MEASUREMENTS DURING MAY, 1923.

By HERBERT H. KIMBALL, In Charge, 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 this REVIEW for April, 1920, **48**:225, and a note in the REVIEW for November, 1922, **50**:595.

From Table 1 it is seen that direct solar-radiation intensities averaged slightly above the normal values for May at Madison, Wis., and Lincoln, Nebr., and close to normal at Washington, D. C. A noon intensity of 1.49 gram-calories per minute per square centimeter of normal surface measured at Madison on May 9 exceeds the previous maximum intensity for May measured at that station by about 1 per cent.

Table 2 shows that slightly more than the average solar and sky radiation was received on a horizontal surface at Washington and Madison during the month, and slightly less than the average at Lincoln.

Skylight-polarization measurements obtained at Washington on 14 days give a mean of 53 per cent, with a maximum of 67 per cent on the 9th. At Madison, measurements obtained on 6 days give a mean of 61 per cent, with a maximum of 70 per cent on the 17th. These are slightly above average values for May at the respective stations.

TABLE 1.—*Solar radiation intensities during May, 1923.*
[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 meridian 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.*
Washington, D. C.											
May 1	4.75	0.69	0.82	0.98	1.17	1.38	1.02	.....	.....	.....	5.16
2	5.36	.....	0.63	0.78	1.03	1.17	.....	.....	.....	.....	4.57
3	7.04	.....	.....	.....	1.05	1.25	0.93	0.73	0.58	.....	5.36
4	7.87	0.61	0.69	0.83	1.00	1.25	.....	.....	.....	.....	5.36
7	9.14	.....	.....	.....	.....	.....	.....	0.92	.....	.....	4.95
9	3.45	.....	.....	.....	1.30	1.46	.....	.....	.....	.....	3.81
10	3.30	0.76	0.86	0.99	1.22	.....	.....	.....	.....	.....	3.00
11	6.50	.....	.....	0.84	1.04	1.30	.....	.....	.....	.....	5.16
14	4.75	.....	.....	0.78	0.98	1.20	.....	.....	.....	.....	5.79
17	5.56	.....	0.74	0.90	1.08	1.33	.....	.....	.....	.....	5.36
18	7.57	.....	.....	0.71	0.89	.....	.....	.....	.....	.....	6.76
25	7.04	0.56	0.69	0.84	1.03	1.34	.....	.....	.....	.....	6.02
31	9.47	.....	0.55	0.67	0.88	1.14	.....	.....	.....	.....	9.47
Means	.....	0.66	0.71	0.83	1.06	1.28	(0.98)	(0.82)	(0.58)	.....	.....
Departures	.....	+0.02	−0.02	+0.01	+0.06	−0.02	−0.02	+0.04	−0.12	.....	.....
Madison, Wisconsin.											
May 4	6.76	.....	.....	.....	.....	.....	0.88	.....	.....	.....	7.29
5	4.17	.....	.....	1.07	1.20	.....	.....	.....	.....	.....	4.95
9	3.45	.....	.....	.....	1.33	1.52	.....	.....	.....	.....	3.99
10	3.63	.....	.....	.....	.....	1.28	.....	.....	.....	.....	6.50
17	5.16	.....	.....	.....	1.28	1.42	.....	.....	.....	.....	3.45
25	5.79	.....	.....	.....	1.13	.....	.....	.....	.....	.....	5.79
31	7.04	.....	.....	.....	1.06	.....	.....	.....	.....	.....	6.76
Means	.....	.....	.....	(1.07)	1.20	1.41	(0.88)	.....	.....	.....	.....
Departures	.....	.....	.....	+0.11	+0.08	+0.06	−0.15	.....	.....	.....	.....