BIBLIOGRAPHY

C. FITZHUGH TALMAN, in charge of library

RECENT ADDITIONS

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:

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Elliott, T. C.
Chinook wind. Salem. 1932. 7 p. 24 cm. (Repr.: Oregon hist. quart. v. 33, no. 3.)

Ficker, H. v.
Über die Entstehung lokaler Wärmegewitter. 2. Mitteilung. Die Vorgänge in der freien Atmosphäre über Lindenberg am 2. und 3. Juli 1914. Berlin. 1932. 54 p. figs. 25½ cm. (Sitzungsber. preuss. Akad. der Wissensch. Phys.-math. Kl. 1932. XVI.)

Gray, R. Whytlaw, & Patterson, H. S.
Smoke, a study of aerial disperse systems. London. 1932. viii, 192 p. figs. pl. 22½ cm.

Great Britain. Min. agr. & fish., & bd. of agric. for Scotland. Agric. met. scheme.
Bibliography of literature on agricultural meteorology. Sec. 1–4. (in 3 vols.) 1930. [Manifolded.]

International geodetic and geophysical union. Association of meteorology.
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Jaumotte, J.
La compensation thermique des baromètres anéroïdes. Bruxelles. 1932. 26 p. figs. 25 cm. (Inst. roy. mét. de Belgique. Mém. v. 4.)

Kinoshita, Masao, & Ishii, Chihiro.
Effect of humidity on supersonic velocity in air. p. 83–96. illus. 26½ cm. (Sci. papers Inst. phys. & chem. res., v. 19, Oct. 1, 1932.)

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Las perturbaciones de la atmósfera. Mexico. 1932. 109 p. 17 cm.

Mémery, Henri.
Les époques de fréquence de la pluie, à Bordeaux, pendant 50 ans (1880 à 1929). Bordeaux. 1931. p. 125–128. 24 cm. (Assoc. franç. avance. sci. Extr. Comptes-rendus, Congrès d'Alger (Avril 1930).
L'Influence solaire et les progrès de la météorologie. Résultats de 50 années d'observations solaires et météorologiques comprenant les observations et les recherches effectuées à Talence, a partir de 1900. Talence. 1932. 23 p. figs. 24½ cm.

Schmidt, Karl.
Die Abkühlungsgrösse in Karlsruhe. Karlsruhe. 1932. 32 p. illus. 28 cm. (Veröffent. Badischen Landeswetterwarte. Nr. 18.)

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SOLAR RADIATIONS

SOLAR RADIATION MEASUREMENTS DURING OCTOBER, 1932

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, 1932, REVIEW, page 26.

Table 1 shows that solar radiation intensities averaged slightly above normal values for October at all three stations at which normal incidence measurements are made.

Table 2 shows an excess in the total solar radiation received on a horizontal surface at Lincoln, Chicago, Fresno, Pittsburgh, and Miami, and a deficiency at all other pyrheliometric stations.

Table 3 shows low turbidity values for the month with the exception of October 3, which was an extremely hazy day.

Polarization measurements obtained on four days at Washington give a mean of 60 per cent, with a maximum of 64 per cent on the 29th. At Madison measurements obtained on four days give a mean of 58 per cent, with a maximum of 60 per cent on the 21st. These are average October values for Washington, but for Madison the values are considerably below the October normals.

TABLE 1.—*Solar radiation intensities during October, 1932*

[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.*
Oct. 3	10.21					1.33					11.38
Oct. 8	7.04	0.75	0.87	1.00	1.18	1.39					4.37
Oct. 10	9.14				0.77						10.97

*Extrapolated.

TABLE 1.—*Solar radiation intensities during October, 1932*—Contd.

Washington, D. C.—Continued

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.*
Oct. 11	6.50				1.30						5.36
Oct. 14	5.36			0.99	1.21	1.47	1.28				4.57
Oct. 22	6.27	0.82	0.90	1.04	1.23	1.53					4.57
Oct. 27	7.29	0.67	0.87	1.03	1.22	1.45					4.75
Oct. 29	6.02				1.31						3.63
Means		**0.75**	**0.88**	**1.02**	**1.17**	**1.43**	**(1.28)**				
Departures		**±0.00**	**+0.04**	**+0.06**	**+0.05**	**+0.02**	**+0.16**				

Madison, Wis.

Oct. 6	3.99			1.04	1.31						4.17
Oct. 7	5.16		0.94	1.08							6.27
Oct. 13	4.75						1.29				4.17
Oct. 20	3.81						1.38				4.17
Oct. 21	3.81		1.29		1.46		1.36				3.81
Oct. 26	4.75			1.14	1.38		1.30				4.17
Means			**(1.12)**	**1.09**	**1.38**		**1.33**				
Departures			**+0.14**	**−0.03**	**+0.10**		**+0.14**				

Lincoln, Nebr.

Oct. 1	9.47		0.91	1.17	1.22	1.36					10.59
Oct. 11	4.57			0.75	1.18						3.99
Oct. 12	6.02						1.27	1.11	0.97	0.81	6.27
Oct. 13	6.27	0.76	0.91		1.10		1.31	1.04			7.57
Oct. 17	6.27	0.86	1.22	1.32	1.43	1.55					8.18
Oct. 18	10.59	0.84	0.93		1.03						10.97
Oct. 19	4.37	0.84	0.98	1.05	1.40		1.40				3.45
Oct. 20	3.45	1.09	1.31	1.38	1.46		1.40				3.45
Means		**0.88**	**1.04**	**1.13**	**1.26**	**1.46**	**1.34**	**(1.08)**	**(0.97)**	**(0.81)**	
Departures		**+0.02**	**+0.10**	**+0.03**	**−0.02**	**−0.02**	**+0.09**	**±0.00**	**+0.03**	**−0.03**	