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SPECIAL OBSERVATIONS.

SOLAR AND SKY RADIATION MEASUREMENTS DURING MARCH, 1920.

By H. H. KIMBALL.

(These data for January to April, 1920, inclusive, will be published in the April REVIEW.)

MEASUREMENTS OF THE SOLAR CONSTANT OF RADIATION AT CALAMA, CHILE.

By C. G. ABBOT, Director.

[Astrophysical Observatory, Smithsonian Institution, Washington, Apr. 30, 1920.]

In continuation of preceding publications, I give in the following table the results obtained at Calama, Chile, in February, 1920, for the solar constant of radiation. The reader is referred to this REVIEW for February, August, and September, 1919, for statements of the arrangement and meaning of the table.

The results for February, like those of January and the latter part of December, run extremely high. Owing to unusual cloudiness, which at times even went so far as to produce rain, a most unusual circumstance at Calama, there were very few days on which it was possible to determine the solar constant of radiation by the older and fundamental method. Attention is called, however, to the determinations of February 10 and February 25 to show that the old method and the new are still in close agreement.

Date.	Solar constant.	Method.	Grade.	Transmission coefficient at 0.5 micron.	Humidity.			Remarks.
					ρ/ρ SC.	V. P.	Rel. hum.	
1920.	*Cal.*					*Cm.*	*Per cent.*	
P. M.								
Feb. 6	1.978	$M_{1.01}$	U+	0.826	0.385	0.95	48	Cumuli scattered about sky.
	1.965	$M_{1.01}$						
	1.974	W. M.						
A. M.								
7	1.942	$M_{1.72}$	U+	.813	.290	.84	64	Cirro-cumuli over most of sky.
	1.954	$M_{1.02}$						
	1.946	W. M.						
8	1.954	$M_{1.11}$	S—	.823	.409	.92	56	Cumuli scattered over east, north, and south.
	1.952	$M_{1.02}$						
	1.953	W. M.						
9	1.984	M_2	S	.823	.321	.77	67	Cumuli around horizon in east, north, and south.
	1.977	$M_{1.5}$						
	1.982	W. M.						
10	2.009	E_0	VG+	.821	.276	.71	64	Cirri low in east. Cumuli forming around horizon in east.
	2.012	M_3						
	1.985	M_2						
	1.978	$M_{1.5}$						
	1.994	W. M.						
11	1.949	M_2	S—	.841	.428	.65	48	Cirro-cumuli scattered about east.
	1.975	$M_{1.26}$						
	1.958	W. M.						
1920.	*Cal.*					*Cm.*	*Per cent.*	
P. M.								
Feb. 12	1.977	$M_{1.02}$	U+	.842	.572	.79	39	Thin cirri spread over much of sky, especially in east.
13	1.975	$M_{1.03}$	U+	.825	.504	.77	37	Thin cirri scattered about sky.
	1.950	$M_{1.02}$						
	1.962	W. M.						
14	1.946	M_2	S	.822	.340	.60	38	Few streaks of thin cirri in east and west. Cumuli forming in distant east.
	1.958	$M_{1.5}$						
	1.951	W. M.						
P. M.								
15	1.951	$M_{1.02}$	S—	.827	.486	.75	39	Very thin cirri spread over much of sky. Some cumuli in east.
A. M.								
16	1.976	M_2	S	.830	.363	.58	40	Thin ciri scattered about sky, especially in west.
	1.968	$M_{1.5}$						
	1.973	W. M.						
18	1.971	$M_{1.23}$	S—	.829	.456	.66	36	Cirri scattered about sky.
19	1.996	M_3	S—	.830	.284	.57	49	Cirri low in east, west, and north.
	1.976	M_2						
	1.983	W. M.						
P. M.								
20	1.982	M_2	S—	.838	.438	.53	26	Cirri in north and east. Cumuli in north and west.
24	1.973	$M_{1.05}$	S—	.835	.481	.84	38	Scattered cirri.
	1.961	$M_{1.03}$						
	1.967	W. M.						
A. M.								
25	1.973	E_0	E—	.825	.265	.65	55	Some cirri around horizon in east, north, and west. Patch of cirro-cumuli in west.
	1.993	M_3						
	1.994	M_3						
	1.983	$M_{1.5}$						
	1.987	W. M.						
26	2.006	M_3	U+	.826	.261	.64	48	Cirri scattered about sky, especially in west, but disappearing gradually.
	1.972	M_2						
	1.983	W. M.						
27	1.963	$M_{1.5}$	S—	.836	.439	.76	43	Cirri scattered about whole sky.
	1.974	$M_{1.37}$						
	1.967	W. M.						
P. M.								
28	1.953	$M_{1.09}$	S—	.839	.504	.90	43	Thin cirri scattered about sky.