

- 4—Louisville, Kentucky. Personnel: W. L. Moore, E. Lotspeich, Miss K. Montgomery, Miss M. Schultz, Miss D. Leon, Miss E. Breitenstein, J. Baker. (Louisville Astronomical Society).
5—Jefferson City, Tennessee. Personnel: F. Weed, Jr.

On November 13-14 observations were made from stations 1 and 4, but no duplicates were plotted. Station 4 also sent in observations made on this night by C. F. Barth and O. W. McCarty at the Boy Scout Observatory. On November 14-15 and 15-16 observations were made from stations 1, 2, 3, and 4. Only stations 4 and 5 observed on November 16-17, and no duplicates were recorded.

TABLE IV
SOUTHERN APPALACHIAN OBSERVERS.

No.	1934 Nov.	C.S.T. h m s	Mag.	Beginning	End	Class	Stations
				Height km	Height km		
1	14-15	13:33:23 ¹	2	96±10	77± 7	S	1, 3
2	15-16	13:23:17 ²	0.5	131 7	94 6	L	1, 3
3		13:43:17 ³	1	81 5	109 19	L	3, 4
4		13:45:27	2	[138 39]	115 10	L	3, 4
5		14:05:10	2.5	[155 71]	87 11	S	3, 4
6		14:08:03	1.5	131 10	[131 32]	L	3, 4
7		14:21:34	1	170 31	131 1	L	3, 4
8		14:21:38	2	135 9	111 5	L	3, 4

¹ Beginning and end heights of this meteor as computed by Bunch are 95±11 and 74±6.

² Beginning and end heights of this meteor as computed by Bunch are 134±6 and 93±8.

³ As computed, this meteor was rising. This is obviously false, but the values are given for both ends as the deviations are less than 20%.

As in Table I, the heights given in brackets have deviations of more than 20 per cent. The identification of meteor number 5 is doubtful. Bunch computed heights for meteors number 1 and 2, as shown in the footnotes.

These 34 heights increase the total number in our files to 498, one hundred having been added by the 1934 Leonid observations. The past three years of coöperative Leonid observing have yielded heights for 437 meteors. For the 242 Leonids computed, the average height of the 220 beginning points is 123.9 km, and the average of the 232 end points is 91.8 km. For the 195 sporadic meteors, the average of 177 beginning points is 106.0 km, and of 183 end points, 82.6 km.

Flower Observatory of the University of Pennsylvania,
Upper Darby, Pennsylvania, 1935 June 14.

The Daylight Meteor of February 19, 1935
By C. C. WYLIE

The detonating meteors of 1934 for which we have recently published paths are examples of meteors for which considerable data are available. The daylight meteor of February 19, 1935, illustrates the opposite class. We received reports from only three observers of this meteor, and for only one did we obtain complete measures. A partly cloudy to cloudy sky over most of the state was no doubt responsible for the small number of observers. None was within the area where detonations would have been the most noticeable. If such were heard,

they did not attract enough attention to be reported.

The first observer was Donald Mouw, a University student at Iowa City, Iowa. At about 11:40 A.M., while the class in General Astronomy was meeting, he observed the meteor, appearing as bright in the daylight sky as the moon does in the night sky. There was no noticeable trail. He saw it through a west window of the class room, falling over the Iowa Field House. The class was dismissed at 11:50 A.M. and Mr. Mouw then told us of seeing the meteor. We had him immediately make a sketch showing the apparent path, with respect to the window frame and the Field House, as seen from this position. The angles were later measured with care, with Mr. Mouw sitting in the seat and using his drawing as a guide.

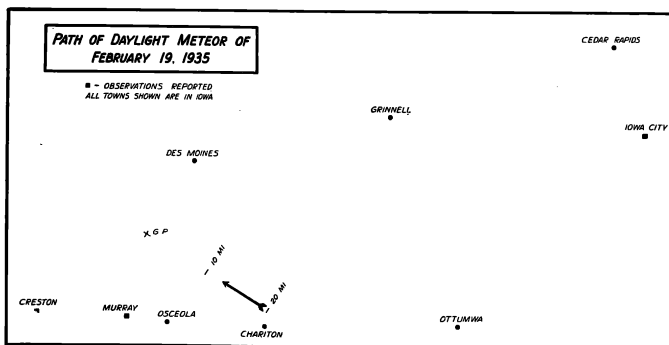
The second observer was C. J. Quackenbush of Creston, Iowa, who saw the meteor through an east window. The meteor appeared very brilliant, of a silvery color, with a large head and a long tail. The meteor appeared from behind one building, and went behind another, so he did not see the bursting. The angles for the path were measured by John W. McDonough, a civil engineer.

The third observation was reported by John A. Coleman of Murray, Iowa, as follows:

"The meteor was observed almost directly northeast of this town. It was very bright and was travelling down, angling slightly from south to north. While still in the air the meteor exploded (no sound) and it descended in a shower of fire and sparks. Some smoke resembling steam in color was seen in the trail of the meteor and more developed after the breaking of the same."

Unfortunately, we were not able to have the angles for the Murray observation measured. Window observations are, however, the most accurate available in general. With two such observations carefully measured, one east and one west of the path, it appeared worthwhile to make the computations. The Creston measurements did not include the endpoint, but the Iowa City ones did. Further, the Murray letter supplemented the Creston measurements, being in good agreement.

Perhaps because of the limited view through a window, the meteor was not seen at either Iowa City or Creston until quite low, below 20 miles. It was then brightening up just before bursting. No determination of the duration was possible, so the heliocentric velocity was assumed parabolic.



The computations on this meteor have been made in duplicate by M. P. Roller and L. R. Wylie. The accompanying map shows the projected path of the meteor. Figures show where the path would have been when 20 miles and when 10 miles