ties required for a comparison of the computations with observation. In general the agreement is quite satisfactory, especially for intermediate temperatures. Effective temperatures of 17,000° for ϵ UMa and α CBr seem somewhat too high. For A5 stars the computed limit is too far in the ultraviolet; but here already a small amount of metals present in the atmosphere will influence the absorption considerably, and the absorption coefficients used are no longer applicable.

1. *Ann. Phys. Leipzig* 58, 576, 1919.
2. *Pub. Astr. Inst. Univ. Amsterdam* No. 5, 1936.
3. *M. N.* 96, 77, 1935.
4. *Pub. Astr. Inst. Univ. Amsterdam* No. 4, 1935.
5. *Lick Obs. Bull.* 12, 104, 1926.
6. *The Masses of the Stars*, p. 112, 1940.

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Wylie, C. C. The 1946 maximum of the Draconid meteors.

This paper includes a determination of the time of maximum, and of the orbit about the sun, of the Draconid meteors, from American observations of October 9, 1946. It includes also a check on the methods of prediction, from the elements of a comet's orbit, of the time of maximum and the radiant of the associated meteors.

The time of maximum display, as indicated by observers working under good conditions, was October 10^d 3^h 51^m U.T. The rate was about 70 per minute for an average observer with good conditions. The radiant, according to Cunningham of California, was $\alpha = 17^h 47^m$, $\delta = +54^\circ 3'$.

The orbit was calculated using the above radiant, and using the assumption that the meteors had been moving about the sun in the same period as the associated comet, Giacobini's. It agreed closely with Cripps' orbit of the comet as given in the *B. A. A. Handbook* for 1946, the only significant difference being about one degree

in the angle of perihelion. When the photographic determinations of the radiant, at different altitudes, become available it will be possible to compute the orbit from these determinations, without any assumption as to period or velocity.

Cripps' elements indicated that the earth would pass through the plane of the comet's orbit October 10^d 2^h 9, or nearly an hour before the observed maximum. This difference is small, and it will be interesting to see whether the revision of the comet's orbit, based on 1946 observations, does not almost completely eliminate it.

The elements of the comet's orbit were modified in three ways for the calculation of the meteoric radiant. The first method, changing the size slightly, missed the observed radiant, by $0^\circ 3'$. The second method, changing the eccentricity, also missed by $0^\circ 3'$. The third method, changing the position of the point of perihelion, missed by $1^\circ 5'$. The first method is the simplest and gives good results. It is the procedure we recommended in an earlier paper.

The heliocentric radiant of meteors traveling in an orbit about the sun must be corrected first for the velocity of revolution of the earth about the sun, second for the gravitational deflection of the earth as the meteors approach its surface, and third, for the velocity of the observer due to the daily rotation of the earth. It is customary to use only the first correction in published predictions of a shower, as in the *B. A. A. Handbook* for 1946, referred to above; but as the second correction may be several degrees, it should be applied by persons interested in photographing the radiant.

All three corrections should be applied in studies of photographically determined radiants, and they have been applied in obtaining the results given above.

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