

good progress has been made in measurement and reduction of accurate positions. Many observations have already been supplied privately and through the Harvard Announcement Cards and Circulars of the International Astronomical Union to those who have immediate need for them. It is expected that several hundred positions and descriptions can be published in final form within the next few months.

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It has not yet been possible to discuss in more than the most superficial way the rather considerable material that has been accumulated for astrophysical investigations of various kinds. Available material includes series of plates taken at intervals on the same night for studies of motions and accelerations of material in the tails of several comets, and long-exposure plates taken with filters to isolate the contribution of light of different colors. These plates should shed light on the distribution of the various molecules and dust within the head and tail of several comets. Negative search plates known to cover the region in which a number of comets have subsequently been located furnish an upper limit to the brightness of the object at the time. These limits can be used to get information on the sizes of cometary nuclei. Many hundreds of magnitude estimates already exist; these should be used to solve directly for the way in which the brightness of comets varies with heliocentric and geocentric distances, as well as to provide information for those who predict future positions and brightnesses.

Observational material on comets is slow to accumulate. The need for the information that can be obtained from comets grows increasingly desperate with the compelling interest in space projects. It is urgently desirable, therefore, that all existing observational material be studied with the greatest possible energy and imagination.