

The date and time of the exposure are given to assist in identifying any asteroids in the field. There are generous overlaps, the minimum being  $1^{\circ}$  along the equator. An index chart identifies the location of each chart and shows its position in relation to the constellations as well as the 1950 coordinate epoch for which the chart markings are drawn. The charts are boxed loose sheets for easy use.

This atlas should be of great value to anyone doing detailed work, and especially so to those of us engaged in AAVSO Chart making. When Clint Ford and I visited South Africa two years ago I agreed to complete the northern section of the atlas for Mr. Papadopoulos using his camera. This work is being done at Stamford Observatory in Stamford, Conn. As of this writing all necessary photographs have been taken. Enlarging the photos and marking of centers, etc. will start this summer and is to be completed by 30 Dec. 1977. It is hoped that Volume III will be ready for release by mid-1978. Meanwhile work is also proceeding on taking photos of the zone from  $+30^{\circ}$  to  $-30^{\circ}$  from Stamford so that original photo plates of that area will be directly available to the AAVSO.

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#### MAPPING THE SOLAR CORONA

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#### ABSTRACT

The largest object in the solar system is indisputably the solar corona. This fact alone justifies extensive investigations into the physical nature of the sun's atmosphere. However, the corona is also the outermost shell of the nearest star to Earth; as such, it is a reflection of the internal processes which govern all stars.

The author presents observations and a number of techniques used to interpret the physical conditions of the solar corona of June 30, 1973. Photographic photometry of calibrated eclipse negatives using a densitometer is explained, with regard to the author's determination of absolute intensities and electron densities in the corona. Several methods of producing isophotes (contours of equal intensity) from eclipse negatives are discussed, two of which were developed by the author. Finally, these isophote and false color maps are used to describe the overall conditions present in the 1973 corona.