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CONTACT TIMES FOR THE 1982-4 ECLIPSE OF EPSILON AURIGAE

Photoelectric UBV measurements of Epsilon Aurigae have been obtained during the past three observing seasons with the Hopkins Phoenix Observatory 20-cm telescope and during the 1982-3 and 1983-4 seasons with the Tjornisland Astronomical Observatory 36-cm telescope. Using the extensive V-filter dataset shown in Figure 1, contact times are derived for the system's recent eclipse.

The times are calculated by extrapolating a linear fit of ingress and egress data to the mean in- and out-of-eclipse light levels (for details, see Schmidtke 1985). The derived contact times are labeled on Figure 1 and summarized in Table I. Included in the table are the predicted times given by Gyldenkerne (1970), based primarily on photometry of the 1955-7 eclipse. Third contact during the recent eclipse is considerably delayed with respect to the other contact times as noted by Oki (1984) and Boyd (1984), yielding a longer totality and more rapid egress than observed during past eclipses. Whether these phenomena are due to real changes in the system's geometry or just represent the superposition of the primary's intrinsic light variations on a normal egress is unclear.

Subject to these uncertainties, the contact times given here must be regarded as provisional estimates. A more extensive treatment of this dataset as well as other photometry contributed to the Epsilon Aurigae 1982-4 Observing Campaign is in preparation. Investigators are encouraged to continue their monitoring of this system during the next observing season to document the post-eclipse variations. UBV data summaries can be sent to Hopkins Phoenix Observatory.

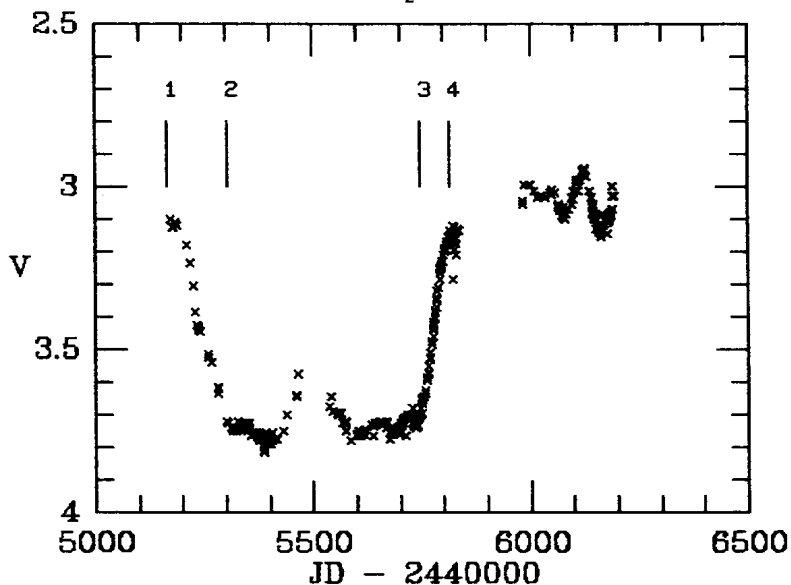


Fig. 1. V-filter light curve of Epsilon Aurigae.

Table I

contact	Observed Time		Predicted Time	
	Date	JD	Date	JD
1st	82 Jul 14	2445165	82 Jul 29	2445180
2nd	82 Nov 28	2445302	82 Dec 11	2445315
3rd	84 Feb 17	2445748	82 Jan 09	2445709
4th	84 Apr 21	2445812	82 May 29	2445850

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