

## COMMENT ON ACCRETION AND COMPACT X-RAY SOURCE MODELS

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We wish to emphasize further the role of optical observations in studying accretion and X-ray emission processes in the Her X-1 system in particular. Significant visible light variations which are closely correlated with the  $\sim 35^{\text{d}}$  X-ray on-off cycle have been observed by us. This variation is largely due to an extremely hot component which is present at maximum light in the  $1^{\text{d}}7$  orbital cycle, but only during X-ray inactivity. In much of the remaining part of the  $35^{\text{d}}$  period a secondary minimum is observed. These source properties and possible relevance to a particular accretion model are discussed in a forthcoming paper (Dec. *Astrophys. J.*). Knowledge of this optical  $35^{\text{d}}$  modulation may also enable us to examine the history of this periodicity from 1968 to the present, using the photographic data of Lyutiy *et al.* (1972 preprint); and when applied to current data, can predict the X-ray turn-on time several days prior to that event.